AALBORG UNIVERSITY

Value expansion in sustainable tourism industry by the enhancement of destinations and networks

Harmonization of tourism certifications using an expanded sustainable development planning model

by

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Preface

This master thesis has been written by Silvia Munafo, a fourth semester student at the masters program Environmental Management and Sustainability Science. The master thesis has been written in the Spring Semester of 2018.

The topic of the report connected to ecolabelling schemes in the sustainable tourism industry. The aim of the thesis is to give an insight and a possible approach for the harmonization of these ecolabels fostering the sustainable development of tourism businesses while considering also the features and the enhancement of destinations where the businesses are located.

Aalborg University, June 2018

Silvia Munafo

Study no.: 20161801

\It is not hard to make decisions once you know what your values are."

Roy E. Disney

AALBORG UNIVERSITY

Abstract

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The thesis introduces and analyzes the practicality of an expanded approach for sustainable development connected to tourism. The expanded approach is framed by a redesigned model. This model is based on (i) existing models that have been tested and used in practice, and (ii) the structure and elements of analyzed ecolabel schemes and standards. The model aims to cover enterprise, value chain and destination scale to nd and possibly connect common strategic directions of di erent actors. However, this study mainly focuses on the viewpoint of enterprises and their possible contribution to the enhancement of networks and destinations.

The structure and content of the introduced existing models are detailed and analyzed in the study. After the categorization and positioning of ecolabels, three service (tourism accommodations) and two destination related ecolabels are introduced and analyzed. The analysis focuses on the structure and the future development directions of the criteria-sets. Indicators are collected based on this analysis which are indicated in the expanded model. Moreover, sustainability strategies of chosen hotel chains are introduced and studied. The main strategic sustainability areas and goals, and the application of the United Nation Sustainable Development Goals in the strategies are presented. The aim of the involvement of the UN global goals is to study their current application in practice and their e ectiveness to bridge the strategic directions and goals of di erent actors.

The theoretical analyzes and the expanded model are applied in the case study of Scandic Hotels.

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Finally, I would also like to thank the two-year long support of the study program team. They made it possible to learn and experience teamwork and real-life projects. I will bring these unique and instructive experiences with myself to utilize them and to happily remember back to the spent time, in the rest of my life.

Contents

Preface i

Abstract iii

Acknowledgements iv

List of Figures vii

Abbreviations x

1 Introduction - Global and local impact of tourism 1
1.1 Research objective and questions 4
1.2 Research design and methodology 4

2 Continuous improvement of tools connected to sustainable tourism 7
2.1 Tools for sustainable tourism and sustainable development models 7
2.1.1 Models and related tools 8
2.1.2 Ecolabels 16
2.1.3 Common directions in criteria development (Tourism accommodation ecolabels and EMS) 36
2.2 The UN Sustainable Development Goals related to tourism 37

3 Expansion and analysis of the sustainable development model for tourism 48
3.1 Overview of the expanded sustainable development model for tourism - Conceptual framework, directions and goals of the model 48
3.1.1 Analysis of the horizontal axis 48
3.1.2 Analysis of the vertical axis 57
3.2 The Canadian and the 4-step models - Adjustment of scales 60
3.3 Ecolabel requirements - Indicators 64

4 Application of the expanded model to case studies 65
4.1 Scandic Hotels 66

5 Conclusion and discussion 75

A Appendix A 78

B Appendix B 86

C Appendix C 91

D Appendix D 102

E Appendix E 110

F Appendix F 117

G Appendix G 119

H Appendix H 122

I Appendix I 124

J Appendix J 127

K Appendix K 129

L Appendix L 131

List of Figures

1.1 The four phases of the research design and the connected data collection methodologies 5
1.2 Connection between the structure of the study and the research questions 5

2.1 The basic four-step model (Kernel [1]) 8
2.2 The Canadian model for business sustainability (Network for Business Sustainability [2]) 10
2.3 Relations between the main aspects of the revisions 13
2.4 Example for how the di erent ISO standards t into the PDCA cycle) (International Organization for Standardization [3]) 14
2.5 The elements of the ISO 14001 standard in the PDCA cycle) (International Organization for Standardization [4]) 14
2.6 Number of ISO 14001 certi cations among sectors in 2016, in global (based on International Organization for Standardization [5]) 15
2.7 Logos of external ISO 14001 certi cations (external body examples: SGS, bsi., Dekra) 16
2.8 Typology and classi cation of ecolabels (based on European Parlament [6], United Nations O ce for Project Services [7], International Organization for Standardization [8] and Font and Buckley [9]) 19
2.9 Overview of the structure, and comparison of the criteria groups of the three analyzed ecolabels for tourism accommodations (based on GreenKey [10], European Commission [11], Nordic Swan [12] 21
2.10 Number of imperative (I) and recommended (R) criteria in the criteria groups (based on GreenKey [10]) 23
2.11 Ratios of the di erent imperative (I) and recommended (R) actions (based on data from GreenKey [10]) 24
2.12 Categorized imperative (I) measures (based on data from GreenKey [10]) 25
2.13 Focus rates of each of the category groups in the previous and in the current version of the EU Flower ecolabel for tourism accommodations (based on Garrido et al. [13]) 27
2.14 Number of imperative (I) and recommended (R) criteria in the current version of the EU Flower ecolabel for tourism accommodations (based on European Commission [14]) 27
2.15 Ratios of the di erent imperative (I) and recommended (R) criteria (based on European Commission [14]) 28
2.16 Categorized imperative (I) criteria (based on European Commission [14]) 29
2.17 Focus rates of the category groups of the Nordic Swan ecolabel for tourism accommodations (based on Nordic Swan [12] 31

2.18 Ratios of requirements in the di erent criteria groups (based on Nordic Swan [12] 31
2.19 Categorized future criteria (based on Nordic Swan [12]) 32
2.20 Correlations between the di erent Biosphere certi cation categories (based on Responsible Tourism Institute [15], Responsible Tourism Institute [16] 34
2.21 Correlation between the concepts from the models, the development directions of the analyzed tourism accommodation ecolabels and the ISO 14001:2015 standard (International Organization for Standardization [17], International Organization for Standardization [18], Network for Business Sustainability [2]) 36
2.22 Percentages of the criteria by criteria groups and concepts (optimization, transformation, system building) (GreenKey [10], European Commission [14], Nordic Swan [12]) 37
2.23 Challenges and threats linked to tourism, and related most commonly mentioned SDGs in the public sphere that can address them (based on United Nations World Tourism Organization [19] 39
2.24 Addressed sustainability dimensions by CSR actions (from United Nations World Tourism Organization [19] 41
2.25 The rate of engagement of the di erent CSR areas (from United Nations World Tourism Organization [19] 41
2.26 Summary of the SDGs which UNWTO, ITP and the BookDi erent.com highlighted to be the most relevant in the private sector (United Nations World Tourism Organization [19], International Tourism Partnership [20], BookDi erent.com [21] 42
2.27 Materiality index for responsible business priorities used by the IHG hotel group (from IHG [22]) 43
2.28 Connections between priority areas, target (linked to programs and actions) and the UN SDGs (based on IHG [22], IHG [23]) 44
2.29 Connections between responsible business, programs, targets and actions, and the UN SDGs (based on Radisson Hotel Group [24]) 45
2.30 Connections between business responsibility pillars, programs, targets and actions, and the UN SDGs (based on NH Hotel Group [25]) 46

3.1 Highlighted key concepts of the model 49
3.2 Di erences between cooperation, partnership and collaboration 54
3.3 Analysis of top-down and bottom-up perspectives in the vertical axis . . . 58
3.4 Overview of the redesigned sustainable development model for tourism . . 60
3.5 Kernel's detailed four-step model (Kernel [1]) 61
3.6 The detailed Canadian model (Network for Business Sustainability [2]) . . 62
3.7 Comparison of the horizontal structure of the models 63
3.8 Comparison of the horizontal structure of the models 63

4.1 Added value input points of ecolabels in a theoretical value network of tourism (simpli ed) 66
4.2 Categorized sustainability action areas in Scandic sustainability strategy (Scandic Hotels [26]) 68
4.3 Application of the expanded model to the collected current sustainability related actions and programs of Scandic Hotels (red: alignment with recommended ecolabel criteria) 72

4.4 Contribution of Scandic to the UN SDGs based on the four main areas of the sustainability strategy of the hotel group (based on Scandic Hotels [26]) 73

H.1 Categorized recommended or new criteria elements from the analyzed tourism accommodation ecolabel criteria-sets (GreenKey [10], European Commission [14], Nordic Swan [12]) 123

I.1 Matching the SDGs with corporate social responsibility (CSR) actions, by area of engagement and type of impact (from United Nations World Tourism Organization [19]) 125

I.2 Analysis of the rates of the contribution of the SDGs in the action areas of CSR (based on United Nations World Tourism Organization [19] 126

J.1 Summarizing table for the applied UNSGDs based on the presented examples (United Nations World Tourism Organization [19], International Tourism Partnership [20], NH Hotel Group [25], IHG [22], Radisson Hotel Group [24]) 128

K.1 The expanded sustainable development model for tourism with the vertical and horizontal elements, placed in the destination context 130

L.1 The detailed version of the expanded model indicating the criteria (red) analyzed in Chapter 2 132

Abbreviations

BM	Business Model
CSR	Corporate Social Responsibility
EDEN	European Destinations of ExcelleNce
EL	Eco Label
EMAS	Environmental Eco-Management and Audit Scheme
EMS	Environmental Management System
EU	European Union
ISO	International Organization of Standardization
SBM	Sustainable Business Model
UNEP	United Nations Environmental Programme
UNWTO	United Nations World Toutism Organization

Chapter 1

Introduction - Global and local impact of tourism

The global and local impacts of tourism get more and more attention and considered to be a signi cant factor in the fast process of climate change. (United Nations World Tourism Organization [19]) The rising tendency of the carbon dioxide level in the atmosphere still accelerates, hindering to reach the targets of the Paris Agreement on the reduction of carbon dioxide level and on the reduction of the rise of global temperature. (International Energy Agency [27], European Commission [28]) In May of 2018, the global carbon dioxide level in the atmosphere reached a new record exceeding an average of 410 parts per million (ppm) during the entire month. This level was the highest in the last 800.000 years. (European Council [29]) The demand for energy increased 2.1 % globally in the last years and approximately 72 % of this increase due to the use of fossil fuels. (International Energy Agency [27]) A new study on the carbon footprint of global tourism shows that 8 % of global greenhouse emission connected to tourism in general, in large part due to air travel. The increase of emission is in parallel with global development, since the tendency shows that the most harms caused are connected to (i) tourists from developed countries as these are the main sending countries and to (ii) the development level and features of host countries and destinations. (Manfred Lenzen, Ya-Yen Sun, Futu Faturay, Yuan-Peng Ting [30]) The gap between these countries can be signi cant, since the less developed destinations have less resources in place to address the issues created by tourism. And solutions for these issues are urgent not just in the global but in the local setting as well. (United Nations Word Tourism Organization [31]) For example, tourism is a signi cant economic factor for small islands that is based mostly on its natural features. (Sharpley and Ussi [32]) These destinations are popular, heavily exposed to impacts of tourism even so their small size and less accessibility. By

the combination of these features, nature is at risk in this self-digesting process. Therefore, the responsibility is shared. Shift in mindset and conscious actions have to be made by tourists and sending countries to change consumption habits and pattern, and by actors in the host destination to regulate, innovate and develop locally. These actions cannot be done alone, collaboration is necessary to raise awareness and put complex, synergic actions into e ect. And time is pressing, since the annual growth of the global tourism industry is already approximately 5 %, with the increase of the demand for luxury travel. (Manfred Lenzen, Ya-Yen Sun, Futu Faturay, Yuan-Peng Ting [30])

With the aim to create public awareness and make steps to address the issue, 2017 was the international year of sustainable tourism for development. A study about the position and possible contribution of the tourism industry in the UN 2030 Agenda for Sustainable Development has been developed. (United Nations World Tourism Organization [19]) In general, sustainable tourism has to be "economically viable, culturally accepted, and universally practiced" (Michael Moller, Director General, United Nations O ce at Geneva, United Nations Word Tourism Organization [33]), for which public/private partnerships are necessary. (World Tourism Organization UNWTO [34])

Focusing directly on partnerships, the Fairtrade organization is also working with the UN 2030 Agenda for Sustainable Development in their strategy for 2016-2020 "Changing Trade, Changing Lives". Based on the "Fairtrade Theory of Change" model introduced in the strategy, standards and certi cations for businesses, organizations and along supply chains can contribute to ground and ensure the development of fair, resilient, viable and inclusive partnerships and networks. (Fairtrade Global [35]) These types of tools can also contribute to foster and position sustainable tourism in the industry (European Parlament [6]).

However, on the other hand, the volume and variety of quality and sustainability ecolabels in tourism can lead to credibility and barrier issues in consumer choice that also need to be addressed in order to make these marketing and management tools meaningful and e ective. (European Parlament [6], Font and Buckley [9]) Therefore, the harmonization of existing ecolabels and standards is needed in the sector to increase competitiveness. The European Parliament's Committee on Transport and Tourism currently runs a research about the possibility of the introduction of a harmonized certi cation system, standard package and single tourism ecolabel in the EU. (European Parlament [6]) This also proves the actuality of the topic.

But what is sustainable tourism? That is a fundamental question that needs a dynamic answer to set the direction of the concept. According to the UNWTO de nition: "Sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future." (United Nations Word Tourism

Organization [36], pg. 7) The concept covers and balances the three aspects of sustainability (environmental, economic, socio-cultural). Therefore, it deals with issues of natural resources, ecosystems, biodiversity, stable employment, local well-being, cultural heritage etc. (United Nations Word Tourism Organization [36])
There are emerging new approaches and synergies with other concepts connected to sustainable tourism. The concept of creative industry and its connection to tourism is discussed in the OECD study (Organisation for Economic Co-operation and Development) from 2014. It emphasizes the importance and potential of intangible features and elements that can have an attractive and engaging role for tourists. The smart "utilization of these features and opportunities can foster the sustainable development of tourism with focus on local culture. Awareness raising of tourists can contribute to the protection of local cultural features, can enhance creative industry and contribute to the sustainable development of the destinations. (OECD [37])
The role and importance of natural features are also in the spotlight. Studies were conducted focusing on the value orientation of young tourists (born between 1980 and 2000) (Cavagnaro et al. [38]). According to the ndings, the contact with nature during the travel experience is an important factor for the younger generation. They also interested in new types of experiences and look for opportunities to learn and understand other cultures. Therefore, they are " an innovative force and (...) their choices may lead to new approaches to tourism by the wider society" (Cavagnaro et al. [38], pg. 4). The consideration of these tendencies could be useful and necessary for the value proposition of actors in the tourism industry.

Culture and nature are fundamental elements for the viability of tourism. Therefore, new approaches and solutions are needed for the protection and enhancement of these elements. For this, sustainable use of (natural) resources is a basic requirement. The concept of circular economy and its possible applications in the tourism industry is a current topic. Tourism closely connected to di erent sectors resulting in complex material ows. Therefore, solutions for circularity in the tourism industry can be found also outside tourism (such as circular economy models for plastics, washing machines, furniture etc. (Manniche et al. [39]) For example, the sustainability work of Scandic Hotels also applies the concept. The hotel group have a lifecycle perspective in their procurement and highlights the importance to make sustainable choices. Ecolabels and other certi cations can make sustainable choices easier and more e ective. (Scandic Hotels [40])

This study introduces and analyzes tools that can contribute to the mitigation of the impacts of products and services in tourism. The main focus is on the ecolabels and hotels. Through these tools, the study also has an outlook to a broader, destination scale that have the potential to embed new approaches in the focus of the tourism industry.

1.1 Research objective and questions

The following research questions have been formulated:

How transition in the understanding of sustainable tourism, from mitigation of impacts of products and services towards enhancement of destinations and networks, can be fostered?
Subquestions 1. What tools can be used to implement sustainability at tourist companies? 2. What are the approaches of the di erent stakeholders and their understanding of sustainability and sustainable tourism? 3. Can a stepwise model be part of the solution in the transition process towards sustainable tourism?

The research aims to nd tools that can expand the approach and understanding of actors and stakeholders about sustainability in the tourism industry. The engagement of stakeholders in a more dynamic and complex system (networks, destination) could expand their values and therefore, their bene ts. However, this system needs to be intelligible in order to be e ective. Therefore, the understanding of tools and stakeholders is necessary. Subquestions 1 and 2 re ect to these elements. Based on the learnings, a stepwise model is framed to help the transition process. Subquestion 3 is related to the usability of this model that is tested by analyzes and case studies.

1.2 Research design and methodology

The research is built up of four main phases:

Grounding research

Analysis of tools connected to sustainable tourism

Theoretical model expansion for the analysis of actors related to sustainable tourism

Application of the expanded model in case study

Figure 1.1: The four phases of the research design and the connected data collection methodologies

Data have been collected by interviews, literature review and from analysis of reports, standards and criteria documents. (Figure 1.1) A grounding research mainly based on academic literature have been done in the rst phase of the study. Then, the focus turned to the selection and study of possible tools for sustainable tourism. Chapter 2 consists the analysis of existing tools: models, environmental management system, ecolabels. Data have been collected from literature review, reports, standards, criteria documents and interviews.(Appendix E, Appendix B, Appendix D) A "point allocation" methodology have been adopted for the analysis of the criteria-set of tourism accommodation ecolabels. (Analysis by the number of allocated requirements in the di erent criteria categories.) The methodology originally has been used for the revision of the EU Flower ecolabel (Garrido et al. [13]). Applying this methodology for the other two introduced tourism accommodation ecolabels (GreenKey, NordicSwan) made the comparison of their crtieria-sets possible. The aim of the comparison was to identify the future development directions of the criteria. Therefore, the focus of the analysis was on the new/recommended requirements. Using these requirements as indicators had the potential to position the model expansion (Chapter 3) better and to provide more meaningful outcomes from the analysis of the given case studies (Chapter 4).

Figure 1.2: Connection between the structure of the study and the research questions

Besides the criteria-sets, the structures of the di erent ecolabel schemes have been also analyzed to help framing the expanded model. Finally, the United Nation Sustainable Development Goals (UN SDGs) and their application in the sustainability strategies of di erent hotels have been introduced. The aim was to study how these common goals engage the di erent actors in tourism, and how can they bridge the di erent scales and dimensions of these actors in the practice.

The theoretical model expansion in Chapter 3 links back to the analysis of the existing tools. The conceptual framework of the model is based on literature review. It is followed by the detailed analysis of the existing models that have been introduced in Chapter 2. The identi ed recommended requirements of the ecolabels from Chapter 2 are included in the expanded model as indicators.

Finally, the expanded model is applied to the case study of Scandic Hotels. The case study based on information collected by the interview with the CSR coordinator of Scandic Hotels in Denmark and by the analysis of Scandic's formal documents.

Chapter 2

Continuous improvement of tools connected to sustainable tourism

In this chapter, concepts and tools of sustainable tourism are introduced based on literature reviews, informations from interviews and formal documents. Section 2.1 focuses on environmental management systems, ecolabels and models. It elaborates on the requirements and criterias of these voluntary tools with a focus on the changing elements of these. The directions of the changing trends are analyzed by statistics, and categorized by concepts from the introduced models. The changing elements and the categorization makes the foundation for the expanded model that will be discussed in chapter 3. Moreover, section 2.2 introduces the United Nations' Sustainable Development Goals and its application in tourism. The aim of the section is to study which goals are the most commonly connected to tourism, and to study the relation of these to the directions of the changing elements that have been set in the previous sections. The question is if the goals can be used as elements of a global sustainable strategy that is able to bridge the directions of the di erent dimensions and sectors, in case of this study, related to tourism.

2.1 Tools for sustainable tourism and sustainable development models

The study works with two existing sustainable development models (four-step model, Canadian model) and related tools (environmental management systems, ecolabels). These are introduces in this section organized around relevant issues and dialogues connected to the usage of these tools in tourism, such as:

Concepts, terminologies and identi cation of tools

Marketing and Management

Credibility

Typology of (eco)labels

Development of the ISO 14001 standard

See the comparism of ecolabels and awards in Appendix F.

2.1.1 Models and related tools

The four-step model

The four-step model has been developed in the project "Sustainable tourism in Mid- and North Jutland" during 2001-2003. It is an overall frame for sustainability tools and indicators. The aim of the project was to help the region to become a sustainable tourism destination by collaboration and development of enterprises and municipalities. (Appendix D, Kernel [1]) This gives the basis of the overall scope of the study eld. The model categorizes and leads the enterprises through the four steps, starting from the implementation of basic sustainability criteria (good house-keeping), to more comprehensive environmental management approaches inside the boundaries of the enterprise (Environmental management) and also beyond that (Front-runners), and nally to an expanded, holistic sustainability understanding in concept (Sustainability). (Kernel [1]) (Figure 2.1)

Figure 2.1: The basic four-step model (Kernel [1])

Also to ensure the practicality of the project, tools (environmental management systems and ecolabels) have been embedded at the di erent steps in the model. The development and design of the model itself and the positioning of the tools was a continuous process based on consultations with the di erent actors who have been involved. (Appendix D, Kernel [1]) In the st phases of this process, the project worked with an own ecolabel

as a sign of compliance with the second step. However, learning from the feedbacks of the actors, it had been changed to existing and already known ecolabels (GreenKey, EU Flower) since these had already greater credibility and marketing force and therefore gave bigger incentive for the enterprises to work with the model and implement sustainability measures. (Appendix D)
Besides these ecolabels in the second step, the compliance with the third step covered the criteria of the ISO 14001 and the EMAS standards. The model was practical enough to use it as a compass in sustainability measures and anchoring the di erent tools connected to these measures. But the requirements of both the management systems and the ecolabels have been changed since then, following the development trends of the industry (elaborated later). For example, the current version of the GreenKey criteria for hotels articulates and emphasizes the involvement of partners along the supply chain more than the previous versions. (GreenKey [10]). Therefore, the update of the indicators in the model is needed.

The Canadian model

The Canadian model is developed by the Canadian organization Network for Business Sustainability in 2012, using information from 127 academic and industry actors. The outcome of the project is the model. It can unction as a roadmap with three stages for professionals about how to make innovations in their business to become more sustainable. Case studies and practical examples are also collected to foster the transiting towards a sustainable business and for this, to help the understanding of the process and the concept. The sustainable transition can be built up only with conscious decisions and actions that are embedded in a sustainable business model (SBM). This means the equal consideration of environmental/planet, social/people and economic/pro t factors. The revision of business models for sustainability is in the second stage of the model. (Network for Business Sustainability [2]) (For comparison, in the four-step model, SBMs and sustainability accounting that equally embed these three pillars are in the fourth step, as indicators. (Kernel [1]) The combination of innovation-sustainability-pro tability has the potential to ensure competitiveness which provides the argument for the need of business sustainability in general.

The model presents the process of the transition from technology-based, insular and stand-alone innovation towards a people-based, systematic and integrated process that is embedded in the DNA of the organization. This sets the direction for the three stages: Operational Optimization, Organizational Transformation and Systems Building (Figure 2.2). The rst stage is focusing on innovation inside the boundaries of the enterprise, categorizing them into product, service and organization level. These are mostly the

so-called low-hanging fruits. The second stage introduces possible new approaches and business logics that needs the revision of the BM of the rm. Finally, the third stage relates to systematic overall transitions that e ects not just the rm but the industry, market and community as well where it is located. For example, industrial symbiosis as a collaboration form creates a local (or at a given scale) circular economy. A quite well-known example is in Kalundborg, in Denmark. The main principle is that somebody's waste can be a resource for others, just as in Circular Economy (CE). However, the formal CE package with strategies and action plans were introduced in 2018 by the European Commission (European Commission [41]) while the Kalundborg Symbiosis has been developed since 1972. The symbiosis based on the partnership of eight private and public companies and organizations, including the local municipality. (Kalundborg Symbiosis [42]) This also proves that besides implementation of new business models, the third stage can be hardly achieved without cross-sectoral collaboration along the engagement of local communities and cultures, and without political support. (Mulrow et al. [43])

The research connected to the Canadian project showed the ratio of the studied organizations in each stages. According to the ndings, 70 % of the organizations are still in the rst stage, 28 % in the second stage while 0 % reached the third stage. However, the data based on the given organizations who participated in the research, the outcome is noteworthy and indicative. (Network for Business Sustainability [2])

Figure 2.2: The Canadian model for business sustainability (Network for Business Sustainability [2])

Relations between the two models and the connected environmental management systems

The detailed version of the Canadian model (from 2012) includes environmental management systems as a tool and indicator already in the rst stage (ecolabels are not indicated) while in the four-step model (from 2003) it is indicated in the second and third steps. With other words, the four-step model separates the basic operational optimization measures and the more systematic environmental management into two steps while the Canadian model indicates these already in the rst step (elaborated in chapter 3). (Network for Business Sustainability [2], Kernel [1]) Even considering the di erent focus groups and settings of the two models, the di erence in the indication of the environmental management system tool can re ect a general, global trend of the increasing consideration of sustainability in business development between 2003-2012. This can be proved by the increasing tendency of the number of ISO 14001 environmental management system standard certi cations in this period is proved by the ISO statistics. (International Organization for Standardization [44]) The number ISO 14001 certi cations in 2003 was approximately 65000 in global while this number reached the 260000 in 2012. However, the rate of the annual growth had decreasing tendency. (International Organization for Standardization [44]) In case of Denmark, both the tendencies of the number of certi cations and the annual growth were increasing. However, the latter is mostly due to the salient endpoint values. The number of certi cations was 486 in 2003 while this number was 1756 in 2012. (International Organization for Standardization [44])

The ISO standards are revised every ve years to keep up with the changes in the marketplace. In justi ed cases, new version is published with three years transition period for previously certi ed companies or organizations, to get the new certi cation (International Organization for Standardization [17]).

During the development of the four-step model, the ISO 14001:1996 version was in e ect, while in case of the Canadian model the ISO 14001:2004 was valid. Currently, the ISO 14001:2015 is the latest version. With the three year transition time, the validity of the previous version ceases in September, 2018. The key changes between the versions are listed below.

Key changes and improvements from the 1996 to the 2004 version:

Structural changes for better compatibility with ISO 9001:2000.

Introduction and explanation of the PDCA cycle.

Emphasis on the continual improvement of the EMS.

Direct link between environmental aspects and impacts.

Environmental policy has to be formally expressed by top management and broadly communicated (not just to employees but also to contractors, volunteers etc.).

De nition and documentation of the scope of the EMS.

Increased emphasis on the root cause analysis of nonconformities and on preventive actions.
(The Government of the Hong Kong Special Administrative Region [45], National Center for Implementation of Cleaner Production [46])

Key changes and improvements from the 2004 to the 2015 version:

New common structure to promote integrated management systems and compatibility with other ISO management standards. Enhancement of the application of the PDCA cycle.

New requirements for the description of the "context of the organization" and for the integration of the EMS into the strategic planning processes of the organization.

Increased focus on leadership and demands to get involved in environmental issues.

Focus on proactive actions for climate change mitigation and sustainable resource use.

Increased focus on environmental performance monitoring and actions to address risks and opportunities.

Life cycle perspective.

Emphasized need and requirements for communication strategy. Especially, better communication with stakeholders.

Digital documentation.
(International Organization for Standardization [17], International Organization for Standardization [18])

On the one hand, both revisions have a focus on the structural compatibility of the standards, on the integrability of the EMS into the processes of the organization and on the importance of leadership and communication. On the other hand, while the st revision emphasized the need to de ne the scope of the EMS, the current revision goes further to understand the context of the organization and then integrate the EMS into its strategic planning processes. Also, rather than a general approach to environmental

Figure 2.3: Relations between the main aspects of the revisions

aspects and impacts, concrete actions for performance improvements and monitoring are fostered. (Figure 2.3)

The revision of the 2004 version was needed because the environmental context in global that organizations have to work in became more challenging. The dialogue in climate change became more serious (for example, COP21 and the Paris Agreement), the expectations of policy-makers especially connected to water and energy use are increased. It has also been followed by the expectations of stakeholders, in order to comply with the new legal requirements. Therefore, ISO 14001:2015 is a tool to help to meet legal requirements but it also goes beyond this. It is a self-improvement tool that supports the advancement and continuous improvement of organizations in environmental context. It sets a standard to help organizations perform according to their environmental commitments and can be a "distinquisher" from other organizations in the market. (International Organization for Standardization [17])
There are more bene ts of the implementation of this voluntary tool. It can be part of the image building of a modern company. Also, it provides an organized way to engage employees in environmental issues and to meet environmental commitments. Furthermore, it contributes to ful ll stakeholder expectations. The improved performance and increased e ciency of processes also can have direct nancial bene ts. (International Organization for Standardization [17]) All in all, the EMS gives competitive advantage related to both marketing and management.

While the core, most common and visible standard is the ISO 14001, the ISO 14000 family is built up more, interrelated standards (also with other ISO standard families

like ISO 9000), such as ISO 14040 for life cycle assessment, ISO 14020 for environmental labels and declarations, ISO 14063 for environmental communication, ISO 19011 for quality and/or environmental management systems auditing or ISO 14006 for ecodesign. All the di erent standards in the family (like in Figure 2.4) and the elements of each one (Figure 2.5) can t into the PDCA cycle, founding the base of an integrated management system also with some links to marketing (ecolabels, environmental communication). (International Organization for Standardization [3]).

Figure 2.4: Example for how the di erent ISO standards t into the PDCA cycle) (International Organization for Standardization [3])

Figure 2.5: The elements of the ISO 14001 standard in the PDCA cycle) (International Organization for Standardization [4])

ISO 14001 is a general standard that can be implemented in any types of organization. (International Organization for Standardization [3]) However, because of the high potential environmental impacts, the sectors with the highest number of certi cates are connected to construction, metal products, electrical and optical equipment, motor vehicles, rubber and plastic products and machinery and equipment. The average number of certi cates among the 39 industrial sectors (based on the European accreditation code system of industrial sectors) is 8.062 certi cates in 2016. In 2016, the construction sector had the largest number of certi cated with 49.837 while this number in the hotel and restaurant sector was 1.786 (red in Figure 2.6) in global. (International Organization for Standardization [5])

Figure 2.6: Number of ISO 14001 certi cations among sectors in 2016, in global (based on International Organization for Standardization [5])

Environmental management systems and ecolabels - Marketing vs. Management tool

As it has been explained above, voluntary tools such as environmental management systems (detailed above) and ecolabels (elaborated later) can be complementary to each other and to formal regulations. However, they have di erent levels of recognition and perception among stakeholders and therefore, credibility and e ectiveness in the industries, in the case of this study, in the tourism industry. (Font and Buckley [9])
Both environmental management systems and ecolabels can have marketing and management sides as well, however rather ecolabels have focused marketing role in the private sector. The focus of environmental management systems is on the management side (Appendix E). For example, the ISO management system family does not have centralized marketing logo that can be earned and used after the veri cation of the compliance with the criteria. This means that ISO, as the organization, develops the standards but it is not involved in the certi cation and issuing processes. Enterprises can be certi ed by external, third party organizations whose have di erent types of marketing logo for the standards that can be displayed by the certi ed enterprises. (International Organization for Standardization [47], International Organization for Standardization [17]) Figure 2.7 shows some examples of these di erent logos.

In case of credible, well-designed ecolabels, the management and the marketing roles are in balance. For this, comprehensive criteria system that follows the development

Figure 2.7: Logos of external ISO 14001 certi cations (external body examples: SGS, bsi., Dekra)

trends of the industry has to be designed under the ecolabel, backed with sound and transparent evaluation and monitoring procedures. (Font and Buckley [9])

2.1.2 Ecolabels

Credibility of ecolabels

The regular update and re-validation of ecolabels at frequent periods is necessary in all sectors but especially in tourism. Development trends of markets, industries and technologies have to be followed and adjusted to in general but the speci c features of tourism products require even more complex indicators for the veri cation processes. It is due to the "intangible, perishable, inseparable and heterogeneous nature of the products". (Font and Buckley [9]) This need for more complex and regular updates can not be omitted for any voluntary initiatives in the eld, such as credible ecolabels.

The UNEP highlights ve main credibility factors for voluntary initiatives (such as ecolabels, environmental management systems):

Participation of all types of related stakeholders in the development process.
This ensures the relevance of the ecolabels.

Well-designed criteria system that based on sustainable development.
The criteria system need to be exible to be able to respond changes and tendencies in the given sector. Besides relevance, it ensures continuous improvement.

Criteria with incentive force that lead to the continuous improvement of enterprises.
The criteria should be proactive enough to make the ecolabel distinctive among actors but at the same time the requirements have to be reasonable, realistic and reachable to make it worth for actors to implement it.

Transparency, publicly available informations.
The management function of these schemes and the related actions need to be communicated towards stakeholders to make the ecolabel meaningful and trusted.

Independent and non-pro t supervising organizations.
The separation of funding, developing and evaluating functions from each other is vital for credibility.
(Font and Buckley [9])

Typology and classi cation of ecolabels

First of all, sustainability labels that include ecolables and relate to sustainability features have to be distinguished from quality labels. (European Parlament [6]) The criteria system of these two main types of labels focus on di erent features.
Quality labels focus on the facilities and level of services of the hotels in general, such as if there is elevator in the building, available newspapers and magazines in the common areas, the length of the opening hours of the reception or the general impression of the hotel. (HOTREC Hotels and & Cafes in Europe [48]) A rather well-known (according to the conducted survey in this study) quality label in the EU is the star system developed by the HOTREC association (Hotels, Restaurants and Cafs in Europe). It is a harmonised hotel classi cation system provided by the partnership of hotel associations of Austria, the Czech Republic, Germany, Hungary, the Netherlands, Sweden and Switzerland. All in all, the main aim of quality labels is to distinguish the di erent quality levels of products and services in the hospitality sector and to provide incentive for its improvement. (HOTREC Hotels and & Cafes in Europe [48])
In contrast, the general, basic themes that the criteria categories of sustainability labels cover are related to water and energy consumption, waste management, the structure of the environmental management in the enterprise and also direct elements and actions for corporate social reponsibility (CSR). However, under sustainability labels, di erent ecolabel schemes have di erent criteria structure (elaborated later). The main general aims of the ecolabels in the hospitality sector are sustainable resource use by technological and operational optimization, awareness raising and behavioural change of stakeholders. (GreenKey [10])

After the identi cation of sustainability labels, these can be further divided into 3+1 types, based on the ISO 14020 series of standards dealing with environmental labels and declarations.

Types I: Environmental/Ecolabels with complex criteria system, certi ed by independent third parties.

Type II: Self-declared environmental claims made by manufacturers and businesses.

Type III: Environmental declarations that are based on a formalized set of data about the life cycle impacts and environmental parameters of products and services.

An additional type (type I+I) can be separated covering ecolabels focusing on only one environmental issue, for example energy consumption of electric appliances (Energy Star label). (United Nations O ce for Project Services [7]) These types of labels can be referred and/or required in the criteria of the more complex ecolabels (Type I). (For example, Energy Star in the EU Flower for tourism accommodations criteria.)
(United Nations O ce for Project Services [7], International Organization for Standardization [8])

In general, ecolabels are "labels that identify overall environmental preference of a product or service based on life-cycle considerations" (United Nations O ce for Project Services [7]). Some of the main fetures of ecolabel schemes:

Voluntary tools with the aim to complement with existing legislations.

Ecolabels provide competitive advantage in case of clear communication of the reached distinction in environmental performance of the product or service, compared to competitors.

They are based on sound scienti c evidence and state-of-the-art scienti c data. Therefore, criteria are regularly updated.

They are based on life cycle considerations, from design through maintenance to disposal.

For credibility, the certifying bodies need to be independent third parties and the criteria system should be developed by all types of stakeholders. (Likewise in the UNEP credibility factors.)
(United Nations O ce for Project Services [7])

Overall, ecolabels are consumer-focused tools that foster conscious choice-making, promote innovation, green products and services and o er good marketing opportunities. (Font et al. [49]) The marketing side of the ecolabels tends to be more emphasized. However, credible and well-designed ecolabels aim to have management functions as

well. For example, Scandic Hotels use the Nordic Swan ecolabel rather as a management tool than for marketing. Scandic Aarhus City hotel started a focused marketing campaign connected to the label only at the beginning of 2018. Before, the hotel had a less signi cant focus on utilizing the marketing potential of the label. (Appendix A) The in uence potential of ecolabels depends on how much consumers care about the environment (norms and behaviours) and their perception about how much di erences are there between ecolabelled and non-ecolabelled products and services (credibility). There is a multifold push-and-pull e ect between consumers, industry and government related to ecolabels. (Font and Buckley [9])

Ecolabels in tourism

Ecolabels in tourism trigger the need to deal with environmental and sustainability issues in even a more complex way. This is due to the multi-sectoral feature of the tourism industry and the broad stakeholder network. To cover all functions and features in tourism, the combination of more types of ecolabels is needed. As it is presented in Figure 2.8, labels related to sustainable tourism are under sustainability labels and type I ecolabels. (European Parlament [6]) From here, tourism ecolabels can be divided into two main categories: quality ecolabels and performance ecolabels. Quality ecolabels can relate to destinations and local features while performance ecolabels are connected to tourism providers such as hotels or agencies, or with other words, to products and services. (Font and Buckley [9]) However, products and services are highly interrelated, in many cases hardly separable in tourism (for example, experience packages with services as a product) (Appendix E).

Figure 2.8: Typology and classi cation of ecolabels (based on European Parlament [6], United Nations O ce for Project Services [7], International Organization for Standardization [8] and Font and Buckley [9])

In the next sections, some selected product, service and destination type tourism related ecolabels are presented summarizing its main features and structure also covering the

UNEP credibility factors listed above. The presented ecolabels have been chosen based on own research and references from the interviews, with the consideration of technical content and geographical scope.

Product related ecolabels

The Fairtrade and the UTZ product (/producer) related ecolabels are introduced in this study in Appendix G. These are connected to the procurement of ecolabelled products in tourism establishments, and/or the partnerships between these companies and tourism related establishments. For example, Scandic Hotels serve only Fairtrade or UTZ ecolabelled co ee. (Scandic Hotels [26]) Moreover, these ecolabels are based on partnerships, working with di erent partnership models that can provide useful approach examples for other sectors and contexts as well. (Fairtrade Global [35]) However, the focus of this study is on the tourism establishment, service and destination related ecolabels.

See the elaboration of Fairtrade and UTZ in Appendix G.

Tourism service related ecolabels

In the following two sections, the GreenKey, Eu Flower and Nordic Swan ecolabels are introduced. The structural frame of the criteria is summarized under each ecolabel and also organized together in the table in Figure 2.9. All the three tourism service related ecolabels have separate water, waste and energy criteria groups or subgroups, and focus on management, monitoring and maintenance. Nordic Swan has separate sections also for requirements to suppliers and purchasing. However, beyond these more general features, there are some di erences in the focus of the ecolabels connected to intangible features and values (such as, the level of focus on enhancement of local features and social communities). (GreenKey [10], European Commission [11], Nordic Swan [12])
The criteria-sets of these ecolabels have imperative and recommended elements. These will be analyzed and positioned using the main conceptual frames of the existing models presented before (operational optimization, organizational transformation, system building) (Network for Business Sustainability [2]), in order to base some of the concepts that have been used for the model expansion in this study (incremental changes, cooperative/collaborative partnerships, green supply chain and procurement, local value networks). The expansion process will be detailed in Chapter 3.
The analysis aims to de ne and allocate the direction of the development of the future criteria-sets and covered issues, to prove that it fosters not just incremental operational optimization actions but partnerships, more integrated and green supply chains and also enhance the focus on local economy, environment and society. The expanded approach

actively involves and engages local communities and features. It triggers a shift in the understanding of synergies between tourism and local sustainable development, also in the enterprise level. (Ritchie et al. [50])

Figure 2.9: Overview of the structure, and comparison of the criteria groups of the three analyzed ecolabels for tourism accommodations (based on GreenKey [10], European Commission [11], Nordic Swan [12]

GreenKey

GreenKey was launched by HORESTA (Association of the hotel, restaurant and tourism industry in Denmark) in Denmark, in 1994. Since the international recognition in 2003, the GreenKey ecolabel scheme is developed and run by the Foundation for Environmental Education. (Foundation for Environmental Education [51]) This global network is recognized by the UNESCO as a leader in environmental and sustainable development education. Besides GreenKey, it works with the Blue Flag ecolabel as well for sustainable coastal areas that also mentioned in the criteria document of GreenKey. GreenKey has partnerships with more hotel groups such as Radisson Hotel Group or Marriott and overall, it has certi ed more than 2900 establishments in 57 countries. (Foundation for

Environmental Education [51])
GreenKey has six product/service categories: hotels and hostels, campsites and holiday parks, small accommodations, conference centers, restaurants and attractions. The evaluation and issuing of the certi cation is conducted by national NGOs that work with the GreenKey ecolabel. (GreenKey [10])

The criteria are structured into 13 groups covering a wide range of areas:

Environmental Management

Sta involvement

Guest information

Water

Washing and cleaning

Waste

Energy

Food and beverage

Indoor environment

Green areas

CSR

Green activities

Administration

(GreenKey [52])

The criteria-set includes imperative, compulsory requirements (I) and additional, recommended measures (R) (the number of the I/R requirements are indicated in Figure 2.10) that shows the directions of the future development of the imperative requirements, promoting conscious proactiveness of the establishments. Imperative requirements include basic operational optimization measures and also touch upon supplier and purchasing-related points, such as the need for active collaboration with relevant stakeholders or the annual increase of the share of organic, eco-labelled, fair-trade and/or locally produced food and drink products. ("Local" means products/services from a 100 km radium in GreenKey.) (GreenKey [52]) Also, there are embedded requirements under the di erent criteria groups for the procurement of ecolabelled products in some extent (EU Ecolabel,

Nordic Swan, Blue Angel, FSC, PEFC, Energy Star, EU energy label with minimum A class) however, it does not cover all product category yet as imperative requirement. (GreenKey [52]) For example, the need for ecolabelled dishwasher and laundry detergents is still included just as a recommendation. Recommended actions focus on optimization, transformation and system related measures as well, such as customer feedback about the environmental management, collection of rainwater, reuse of waste water, reduction of single dose packages, composting organic waste, usage of biodegradable disposable cups, plates and cutlery, the procurement of seasonal food and drink products or collaboration with local small entrepreneurs. (GreenKey [52]) (categorized in Figure 2.12) The ratio between the imperative and the recommended measures implies that in the future the focus of the imperative requirements will expand to cover a higher ratio of actions for organizational transformation and system building.

Figure 2.10: Number of imperative (I) and recommended (R) criteria in the criteria groups (based on GreenKey [10])

Currently, energy related actions has the highest percentage among the imperative requirements with 17 %. Moreover, both the water and waste category reached 14 % (Figure 2.11). A plus sign is indicated in Figure 2.11, where the ratio of the given group is increased after the inclusion of the recommended criteria. /Ration between only imperative and all criteria/). These requirements mainly connected to operational optimization.

Also in the case of recommended actions, the highest rations are connected to the energy, water and waste criteria groups with 27 %, 13 % and 12 %. However, the proposed actions under these foster not just operational optimization and incremental changes for sustainable resource use but also organizational transformation focusing on supply chain

Figure 2.11: Ratios of the di erent imperative (I) and recommended (R) actions (based on data from GreenKey [10])

and procurement. Furthermore, the focus on CSR, green activities, food and beverage and administration related measures is also increasing, with the enhancement of local features, communities and networks. (Figure 2.12)

Added value by the ecolabel: Sustainable resource use by increased sustainable methods, operations, technologies and focused management.

Figure 2.12: Categorized imperative (I) measures (based on data from GreenKey [10])

Ecolabels with both product and service categories

While GreenKey is especially focusing on tourism related services, the following ecolabels cover more, di erent product and service categories that also have been referred in some sections in the GreenKey criteria as requirements or recommendations.

EU Flower

The EU ecolabel scheme was established in 1992. The main parties in the development are the European Union Ecolabelling Board, the European Commission, Competent Bodies (independent organizations) and relevant stakeholders. (European Commission [11]) The new and revised criteria proposals are based on scope and de nition identi ca-tion, market and technical analyses and the analysis of improvement potential. (Garrido et al. [13]) For the engagement of consumers, the European Commission created the EU Ecolabel Tourist Accomodation Catalogue, a website with a search engine to nd EU Flower ecolabeled hotels/campsites. (European Commission [53]) Also, the website of the ecolabel category promotes and has a direct link to BookDi erent.com for the same purpose.
The ecolabel based on life cycle approach and aims to foster the transition towards circu-lar economy by the promotion of green innovation and sustainable industries, reduction of waste and CO2 emission, sustainable use of energy, water and raw materials and the increase of recycle and reuse. (European Union Publications O ce [54]) It does not have geographical restrictions for businesses to become EU Flower certi ed, the only requirement is to ful ll the criteria.

The current criteria-set for Tourist Accommodations is valid until 2022. Its structure is framed by ve main groups (European Commission [14]):

General management (EMS, sta training, information to guests, maintenance and monitoring)

Energy

Water

Waste and waste water

Other (no smoking, transportation and marketing with the ecolabel)

The requirements include and link the other EU Flower product categories as well as the EU energy e ciency classes to set minimum requirements, and promote the implementa-tion of ISO or EMAS environmental management systems. It also mentions the Nordic Swan and the Blue Anger ecolabels. Aspects such as local community, ecosystems or

culture are not dealt directly and the focus on supply chains is included mostly in the optional criteria section (for example, "EMAS registration or ISO certi cation of suppliers"). (European Commission [11]) After the revision of the previous version of the criteria, the rate of the focus on each of the category groups (based on the allocation of criteria points) have slightly changed. (Figure 2.13) The focus on energy, water and on general management have been increased while proportion of the other services/criteria criteria points have been decreased. The criteria in the separate categories of waste and detergent and disinfectants have been partly replaced and included in the waste and waste water category or have been relocated into other groups. (Garrido et al. [13])

Figure 2.13: Focus rates of each of the category groups in the previous and in the current version of the EU Flower ecolabel for tourism accommodations (based on Garrido et al. [13])

Figure 2.14: Number of imperative (I) and recommended (R) criteria in the current version of the EU Flower ecolabel for tourism accommodations (based on European Commission [14])

In the current version, the energy related actions has the highest percentage among both the imperative and the recommended requirements with 35 % and 31 %. (Figure 2.14 and 2.15) Among the imperative requirements, general management reached the second highest ratio (23 %) although this has the lowest level among the recommended optional requirements (11 %). Comparing the ratios between the criteria groups separately related to the imperative and recommended requirements, the focus on the water, waste and other criteria is increasing. The "other" criteria section covers requirements related to local and organic products (in EU Flower, "local" means product/service from a 160 km radium. It was de ned with 100 km in GreenKey.), no smoking policies, increase of unsealed surfaces, social policy, additional environmental and social actions and transportation. (Figure 2.9, European Commission [14])

Figure 2.15: Ratios of the di erent imperative (I) and recommended (R) criteria (based on European Commission [14])

The additional recommended criteria have optimization, transformation and system building elements too (Figure 2.16), just as in the case of the GreenKey ecolabel. However, while in GreenKey, due to the wide range of criteria categories, the correlation between the development stages are more articulated. (Figure 2.12) In the previous analyzes of the GreenKey criteria, the CSR, green activities, food and beverage and administration criteria groups included the most system building elements among the recommended requirements. In the EU Flower criteria, these are included or mentioned in the general management and in the other criteria groups. (Figure 2.16) Both of these ecolabels foster sustainable resource use, incremental changes, partnerships, greener supply chain management and procurement and local networks, however the EU Flower do not have speci c separated recommended requirements for the enhancement of local social communities and features. (European Commission [14])

Added value by the ecolabel: Sustainable resource use by increased sustainable methods, operations, technologies and focused management.

Figure 2.16: Categorized imperative (I) criteria (based on European Commission [14])

Nordic Swan

Nordic Swan was established in 1989 by the Nordic Council of Ministers from Denmark, Sweden, Norway, Finland and Iceland. The ecolabel can be used only by businesses located in Nordic or Baltic countries. Nordic Swan is a founder of the Global Ecolabelling Network (GEN). (Nordic Swan [55]) The ecolabel works with the concepts of life cycle perspective, circular economy and green public procurement. The certi cations are based on life cycle assessments. Furthermore, the ecolabel is a tool for the improvement of the business model of the businesses and to stimulate them to innovate through the life cycle processes of the given product. (Nordic Swan [56], Nordic Swan [57]) The criteria development starts with a pilot study that ground the drafting of the criteria that is consulted and revised by the relevant stakeholders. The nal validation of the criteria is made by the Nordic Ecolabelling Board. (Nordic Swan [55]) The revision of the criteria is a continuous process in collaboration with relevant stakeholders from the industry and academia that also ensures credibility. The general revision cycle of the product/service criteria sets is four year. (Nordic Swan [57])
Nordic Swan is highly recognized in the Nordic countries. Based on the Nordic consumer survey in 2017, 9 of 10 Nordic consumers are recognize the ecolabel and half of them consciously looking for it. (Nordic Swan [57])

The ecolabel has 58 main product/service categories, including "Hotels, Restaurants and Conference Facilities". This group has one criteria set with alternative requirements for restaurants, and the combination of these requirement for the di erent service pro les (for example, hotel with restaurant, hotel with conference facility or hotel with restaurant and conference facility). The criteria interconnect and embed the procurement of other Nordic Swan or EU Flower certi ed products or products with the same sustainability level as minimum requirements (for example, 90 % of the dishwashing as well as the laundry chemicals have to be ecolabelled in the hotel). Furthermore, there are speci c requirements for non-ecolabelled products. (Nordic Swan [12])

The main criteria groups are:

Basic requirements related to the general description of the business, suppliers (food and drinks), limit values, energy, chemicals, water, waste, purchasing, serving food and drinks, transportation and procedures.

Food

Guest rooms

Pools

Alternative requirements for restaurants

(Nordic Swan [12])
Under the basic requirements, the general description section includes basic information about the establishment (it is not included in the analysis here). The suppliers (food and drinks) section relates to documentation but the speci c requirements are under the serving food and drinks section. The limit values connected to energy, water and waste, also describing the monitoring processes. (Nordic Swan [12]) For the analysis of the relationships and ratio of the focus of the criteria groups, the following parts are included in the related other sections:

Suppliers (food and drinks) is included in Serving food and drinks (+1)

Limit values is included in Energy, water and waste (+1/sections)

Nordic Swan does not separate recommended requirements in the criteria-set. The future direction of the criteria development is directly stated in the end of the criteria document under "new criteria". These new criteria are only listed, not allocated speci cally to the criteria groups. (Nordic Swan [12]) For the analyses here, these possible new/improved

Figure 2.17: Focus rates of the category groups of the Nordic Swan ecolabel for tourism accommodations (based on Nordic Swan [12]

Figure 2.18: Ratios of requirements in the di erent criteria groups (based on Nordic Swan [12]

criteria are indicated by plus one point in the groups that the criteria addresses. (Figure 2.17 and 2.18)

The possible new criteria address issues connected to energy, chemicals, waste, purchasing, food, guest rooms and pools. (Nordic Swan [12]) A plus sign is indicated, where the ratio of the given group is increased after the inclusion of the new criteria. Figure 2.19 shows the categorization of the possible new criteria. Similarly to the EU Flower ecolabel, Nordic Swan has less concrete, direct focus on local ecosystems or social community building.

Added value by the ecolabel: Sustainable resource use by increased sustainable methods, operations, technologies and focused management.

Figure 2.19: Categorized future criteria (based on Nordic Swan [12])

Destination related ecolabels

Destination related ecolabels have top-down approach. Most of these ecolabels have modular structure that gradually increases the number and type of stakeholders involved. While the general focus of criteria in the tourism accommodation related ecolabels is on energy, water and waste related measures and actions, with a more technical approach (see analysis above), destination related ecolabels mostly work with policies (Global Sustainable Tourism Council [58]). Instead of the rather technical criteria groups like energy, water, waste, destination ecolabels categorize the requirements under local-scale and rather quality related issues, such as cultural heritage or environmental conservation. The more speci c energy, water or waste related requirements are organized under these criteria groups. (Global Sustainable Tourism Council [58])
The main link point between accommodation and destination ecolabels is CSR with the arenas of green supply chains, value chains, local networks and communities.

Biosphere

The Responsible Tourism Institute is an international organization that promotes sustainable tourism by summits and conferences, training and education, research and project development, international cooperation and by the Responsible Tourism System that is branded with the Biosphere ecolabel. (Responsible Tourism Institute [59])
The strategy and direction of the system is based on the 17 Sustainable Development Goals (SDGs), the World Charter for Sustainable Tourism +20 and the guidelines of the Paris Climate Summit. Furthermore, the Responsible Tourism Institute is member of the United Nations World Tourism Organization (UNWTO) and founding member of the Global Sustainable Tourism Council (GSTC). The ecolabel is mostly well-known in Spain, Portugal and South America. (Responsible Tourism Institute [15])
The Responsible Tourism System with the Biosphere ecolabel was developed in 1998. After the World Charter for Sustainable Tourism + 20, the Paris Agreement and the development of the UN SDGs, the Biosphere system have been revised. The current system consists four certi cation categories: destinations, accommodations, personalized products/services/attractions/businesses and hotel companies. These categories are based on the identi ed stakeholder groups: public organizations, tourism agencies and networks, private companies and tourists. The overall methodology is built up di erent steps, combining these categories. The rst step is to become a Biosphere Certi ed Destination that focuses on public policies. The next step is to involve the local companies and structure their commitments re ecting and complementing to the public policy directions. According to the number of partners who became certi ed by one of the Biosphere certi cation category, the destination can be awarded with golden and platinum level. (Responsible Tourism Institute [59])
The structure of the Biosphere Destination certi cation separates elements into the following main groups: responsible tourism policy, social and economic development of local community, preservation and enhancement of cultural heritage and environmental conservation. Like a modular system, the di erent certi cation categories have similar elements (however these apply to di erent scales) with the addition of more sector related elements as well. Figure 2.20 shows the correlations between the di erent certi- cation categories. (Responsible Tourism Institute [15], Responsible Tourism Institute [16])

Added value by the ecolabel:Inclusive and sustainable economic growth, empowerment of local community, resource e ciency and resilience, enhancement of environmental and cultural features and heritage, involvement of all related stakeholders, community and network building, mutual understanding, peace and security.

Figure 2.20: Correlations between the di erent Biosphere certi cation categories (based on Responsible Tourism Institute [15], Responsible Tourism Institute [16]

GreenDestinations

The criteria system of the GreenDestinations standard is recognized by the Global Sustainable Tourism Council (GSTC) and supports destinations to work with the UN Sustainable Development Goals. It is led by the Green Destinations Foundation and owned by the consortium of three organisations: Green Destinations, Coastal and Marine Union (EUCC), and European Centre for Eco and Agro Tourism (ECEAT). More than 120 destinations have joined to GreeDestinations from 60 countries. The organization is also active in marketing, have a partnership with BookDi erent.com that is partner of Booking.com. Moreover, BookDi erent.com also referred and linked in the website of the EU

Flower ecolabel for tourism accommodations. (GreenDestinations [60]) The BookDifferent.com website categorises destination using the methodology of GreenDetinations, the "Green Destination Rating methodology". (BookDi erent [61])
The standard has two recognition types: awards (it is di erent than the above elaborated awards. Here it means a pre-certi cation step. However, there is a connected annual Sustainable Destinations Top 100 Award that can be earned by the best GreenDestinations award holders.) and certi cation. Both of these recognition types have the same main criteria elements (GreenDestinations [62]):

Destination Management

Nature, Animals and Scenery

Environment and Climate

Culture and Tradition

Social Well-Being

Business and Hospitality

The di erence between them that awards require excellence at least in one of these elements while the certi cation covers all of them. There are two types of award: QualityCoast Award and GreenDestinations Award with di erent award levels (Bronze, Silver, Gold and Platinum) depending on also the number of the covered elements. (GreenDestinations [62]) Therefore, the awards mainly reward the quality of the tourism o ers of the destination in speci c elds connected to one or more elements while certi cations are more complex, rewarding not just the quality but the sustainable management of the combination of all elements in the overall destination. This approach is similar to the modularity of the Biosphere system that has been elaborated above. However, GreenDestinations does not have di erent award/certi cation categories that apply to di erent type of actors speci cally. The business related criteria are included in under the Business and Hospitality section. (Green Destinations [63]) It is possible to adopt the GreenDestination standard system to the national system. In Slovenia, Slovenia Green and in Portugal the ECOXXI system are the individualized systems of GreenDestinations. (GreenDestinations [62])

Added value by the ecolabel:Support and enhancement of local culture and tradition, ensuring human rights and accessibility, enhancement of local businesses and communities, ensuring public health, safety and sound environmental management, protection of nature, landscape and biodiversity.

2.1.3 Common directions in criteria development (Tourism accommodation ecolabels and EMS)

In the case of the analyzed tourism accommodation ecolabels, the recommended or new criteria elements are categorized and presented together in Figure H.1 in Appendix H. The percentages of the criteria by criteria groups and concepts (optimization, transformation, system building) are detailed in Figure 2.22. Among these recommended criteria, the CSR related elements have the highest rate with 20 %. These are mainly under the organizational transformation and system building concepts (9-9%). It is followed by the food and the energy related criteria group (17 % and 16 %), however these are connected to rather operational optimization and organizational transformation.

The addressed issues of the categorized recommended criteria (categorized by operational optimization, organizational transformation, system building) prove that the future criteria-sets will have more focus on not just incremental changes and sustainable resource use but on green supply chains and procurement, and on local features, communities and networks.

In the case of the ISO 14001 standard, the new version (ISO 14001:2015) has improved focus on the support of the implementation of proactive sustainable resource use measures, integrated management, life circle perspective along the entire supply and value chain and improved communication strategy with stakeholders. (International Organization for Standardization [17], International Organization for Standardization [18]) These complement and coincide with the above elaborated directions connected to the ecolabels. (Figure 2.21)

Figure 2.21: Correlation between the concepts from the models, the development directions of the analyzed tourism accommodation ecolabels and the ISO 14001:2015 standard (International Organization for Standardization [17], International Organization for Standardization [18], Network for Business Sustainability [2])

Figure 2.22: Percentages of the criteria by criteria groups and concepts (optimization, transformation, system building) (GreenKey [10], European Commission [14], Nordic Swan [12])

2.2 The UN Sustainable Development Goals related to tourism

As an e ect of the introduction of the UN Sustainable Development Goals, actors from several sectors likewise from tourism are working on the implementation of these global

goals into their strategies. (United Nations World Tourism Organization [19]) Due to the complexity and interrelation of the issues and the goals themselves, it is a challenging and long-term learning process binding stakeholders together by collaborations and better understandings of each others. (IHG [22], United Nations World Tourism Organization [19]) 2017 was dedicated to sustainable tourism for development. The international year was an important turning point, and as a result of the year-long direct focus, the UNWTO published a report about the most commonly mentioned and/or used goals related to the tourism industry (United Nations World Tourism Organization [19]). The publication is based on data from the analysis of Voluntary National Reviews on the SDGs of 64 countries (including Denmark), eight Mainstreaming, Acceleration and Policy Support country roadmaps and on the analysis of the Corporate Social Responsibility (CSR) of 60 global tourism companies from the accommodation, transport and tour operator sectors. These resources indicate the usage of the goals in national policy-making as well as in the private sector in global.
All in all, the UNWTO report (United Nations World Tourism Organization [19]) has an overall insight into the current trends of the application of the SDGs in both the public and private sector. It links all the SGDs to public policies and to CSR actions of private business. Based on the analyzes, ve main areas have been pointed out where the goals can contribute:

Sustainable economic growth

Social inclusiveness, employment and poverty reduction

Resource e ciency, environmental protection and climate change

Cultural values, diversity and heritage

Mutual understanding, peace and security
(United Nations World Tourism Organization [19])

Public sector, Policy-making

In the public sphere, the most commonly mentioned SDGs are 8 - Decent Work and Economic Growth, 12 - Responsible Consumption and Production, 17 - Partnerships for the Goals. Goal 17 is a core linkage element that is fundamental for the successful application of the goals. Furthermore, some public strategy documents analyze the relations in more details focusing on challenges and threats of tourism that the goals can address. (United Nations World Tourism Organization [19]) Figure 2.23 shows the summary of these goals organized into a SWOT-like matrix.

Figure 2.23: Challenges and threats linked to tourism, and related most commonly mentioned SDGs in the public sphere that can address them (based on United Nations World Tourism Organization [19]

Tourism related organizations

Some organizations connected to the tourism sector have recommendations for the application of the goals. The UNWTO report highlights the most relevant goals in di er-ent sectors based on the throughout analyzes of the collected data from stakeholders. (United Nations World Tourism Organization [19]) The International Tourism Partnership (ITP) also selected ve goals for the hotel industry and categorized them around action areas. For this, the organization collaborated with international hotel groups (such as IHG and Radisson) to provide strategic recommendations. The action areas (and the connected goals) are youth employment (SDGS: 4, 8), water (SDGS: 6), carbon (SDGS: 13) and human rights (SDGS: 8, 10). (International Tourism Partnership [20]) The Global Sustainable Tourism Council (GSTC) also applied all the 17 goals into their standard for destinations. However, it has not been done yet in case of the industry standard for hotels and tour operators. (Global Sustainable Tourism Council [58]) Since the GSTC standards base the criteria development of many ecolabel schemes, the organization's work with the UNSDGs can have a signi cant e ect on the approach and focus of ecolabel schemes that in uences stakeholders who aim to be certi ed.

Private sector, CSR in tourism related businesses

In the private sector, the most commonly mentioned UN SDGs connected to the CSR strategies and activities are 1 - No Poverty, 4 - Quality Education, 8 - Decent Work and Economic Growth, 12 - Responsible Consumption and Production, 13 - Climate

Action. (United Nations World Tourism Organization [19]) In the sustainability reports of many of the international hotel groups and chains (such as IHG, Radisson, Scandic, Accor), business goals, targets and key performance indicators (KPIs) are connected to the selected SDGs. The main drivers are to reach better e ciencies, cost savings and to be more competitive in the market also by the enhancement of CSR. (United Nations World Tourism Organization [19]) The selection of the most relevant SDGs for a given business and its stakeholders is based on stakeholder analysis. (Appendix A, IHG [22], Scandic Hotels [26])
According to the UNWTO report, the most common CSR actions in tourism accommodation related businesses are connected to:

Pollution reductions

Consumptions and e ciencies especially related to energy

Sta involvement and trainings

Partnerships, cooperations and memberships related to customers, partners and suppliers

Certi cations such as GreenKey
(United Nations World Tourism Organization [19])

In general, CSR actions addresses issues mostly related to environment. It is followed by social and multifaceted issues. The economic dimension is the least addressed in CSR actions. (Figure 2.24) In case of the rate of engagement in the di erent activity ares under CSR (Figure 2.25), the highest rates connected to the areas: business operations and host community support activities. The rates of the engagement in the areas of stakeholder involvement, supplier relations and customer service lag behind. (United Nations World Tourism Organization [19]) The focused analysis about the rates of the contribution of the SDGs in the CSR action areas is presented in Figure I.2 in Appendix I. The ratio analyzes is based on the data from the UNWTO report (Appendix I) I). (United Nations World Tourism Organization [19]) The analysis of the application rate of the SDGs in CSR action areas shows that the goals are most frequently (40%) connected to host community support actions. It is followed by the business operations area (30%). In general, goal 12 - Responsible consumption and production is the most frequently adopted SDG in CSR actions. (Appendix I)

Figure 2.24: Addressed sustainability dimensions by CSR actions (from United Nations World Tourism Organization [19]

Figure 2.25: The rate of engagement of the di erent CSR areas (from United Nations World Tourism Organization [19]

Consumer side, Choice-making

One of the modern trend shaping factors in the tourism industry is the internet. Informative and booking websites have a big in uence on consumer choices and in the overall planning process of travels and holidays. The online feedbacks, comments and ratings get high attention from both the demand and the provider side in uencing the market dynamics. (Ritchie et al. [50], Sziva [64],]) Some hotels have methods and tools to analyze these feedbacks and learn from them (for example, NEYA Hotels Lisbon,

Appendix B). Therefore, consumer choices directly e ect the development processes of the hotel industry as well. To ensure conscious choices, the booking websites need to provide complex information about the o ers. (BookDi erent [61])
The BookDi erent.com website was mentioned before in this chapter connected to the EU Flower and the GreenDestinatios ecolaabels. It works with the SDGs and selects goal 8 - Decent Work and Economic Growth, 12 - Responsible Consumption and Production, 13 - Climate Action and 14 - Life below water, as the most relevant ones. Ecolabels are directly linked to goal 12. (BookDi erent.com [21])

The SDGs which UNWTO, ITP and BookDi erent.com works with connected to the private sector are summerized in Figure 2.26.

Figure 2.26: Summary of the SDGs which UNWTO, ITP and the BookDi erent.com highlighted to be the most relevant in the private sector (United Nations World Tourism Organization [19], International Tourism Partnership [20], BookDi erent.com [21]

SDGs in the sustainability strategies of hotel groups

The more general selections of the goals in the public and the private sector are presented in the previous sections. The individual selection of SDGs by the IHG, Radisson and NH hotel groups are presented in this section, based on their sustainability strategies and reports. All three hotels are members of the International Tourism Partnership (ITP) (International Tourism Partnership [20]).

IHG Hotel Group

The IHG hotel group consists hotel chains such as InterContinental or Holiday Inn. The hotel group mainly operates in America (62% of the total number of rooms). While 13% of the rooms are located in Europe. (IHG [65])

The international hotel group de nes its responsible business priorities and focus areas with the involvement of stakeholders that mainly means third-party owners (The group franchises its brands and manages the hotels together with the third-party owners.) Stakeholders determine the relevant issues for them that need to be addressed. These priorities get aligned with the strategic model and main risks of the hotel group. For

this, a materiality index is used, where the horizontal axis consists a low-medium-high "relevance to IHG" scale, while the vertical axis indicates the importance of the given issues to the stakeholders (Figure 2.27). (IHG [65])
The company works with 17 priority areas grouped into four themes: business culture and responsibility (light blue), employees ("our people", dark blue), environmental sustainability (green) and community impact (red). (Figure 2.27). (IHG [22])

Figure 2.27: Materiality index for responsible business priorities used by the IHG hotel group (from IHG [22])

All stakeholders are engaged to the assessment and evolvement of the de ned priority areas: guests and corporate clients, owners, employees, investors, suppliers, academic institutions, NGOs, government and community organisations, industry associations. Targets have been set connected to the de ned priority areas. Moreover, seven of the UN SDGs have been selected where the hotel group have the greatest potential to have impact: goal 6 - Clean water and sanitation, 8 - Decent work and economic growth, 10 - Reduced inequalities, 11 - Sustainable cities and communities, 12 - Responsible consumption and production, 13 - Climate Action, 17 - Partnerships for the goals. (IHG [22], IHG [23]) The goals, the priority areas and the targets are linked together by the sustainability programs and actions of the hotel group. The table in Figure 2.28 shows these interrelations.

Figure 2.28: Connections between priority areas, target (linked to programs and actions) and the UN SDGs (based on IHG [22], IHG [23])

Radisson Hotel Group

The Radisson hotel group consists several brands such as Radisson Blu and Park Inn. The hotels are located in 78 countries. (Radisson Hotel Group [24])

Radisson identi ed eight responsible business stakeholder groups: employees, customers, property owners, shareholders and investors, suppliers, authorities, community, environment. With the involvement of these stakeholders, and based on other internal and external resources such as the International Tourism Partnership stakeholder dialogue platform or the UNWTO reports, the group identi ed the most relevant responsible business issues. After a materiality assessment, the hotel group identi ed three pillars for its responsible business program: ThinkPeople (employees and value chain), ThinkCommunity(contribution to local enhancement), ThinkPlanet (CO2, energy, water and waste). (Radisson Hotel Group [24])
Radisson won several awards and 80% of its hotel are ecolabel certi ed (mostly GreenKey). Moreover, the hotel group received the EcoVadis Silver recognition in 2017 for its sustainable supply chain management. The company also works with a supplier risk rating matrix to identify suppliers with low/high risk and poor/active risk management. (Radisson Hotel Group [24])
Radisson works with all the 17 SDGs linking their programs and action areas to them. (Figure 2.29) (Radisson Hotel Group [24])

Figure 2.29: Connections between responsible business, programs, targets and actions, and the UN SDGs (based on Radisson Hotel Group [24])

NH Hotel Group

The NH hotel group consists four brands. The most hotels are under the brand with the same name: NH Hotels. These three or four-star urban hotels are located in 29 countries. The hotel group works with global environmental (ISO 14001) and energy management systems (ISO 50001). Moreover, 131 hotels have ecolabels such as BREEAM, LEED, GreenKey and Hotels+Green. (NH Hotel Group [25])

The group also conducted a materiality analysis to analyze the relevant aspects to the business (impact on business) and to the stakeholders (impact on stakeholders) in CSR. The material aspects then were contrasting with the business goals and strategy to embed them in the management. (NH Hotel Group [25])

NH works with ve pillars: responsible business (suppliers, partners), employees, customers, community and planet (sustainable products, reduced consumptions). Aligning with these pillars, six SDGs have been selected: 3 - Good health (healthy breakfasts, local food), 8 - Good jobs and economic growth (Youth Career Initiative), 12 - Responsible consumption and production (reduction of footprints, involvement of customers), 13 - Climate action (ecolabels and certi cations), 16 - Peace, justice and strong institutions (involvement of stakeholders, code of conduct), 17 - Partnerships for the goals (international partnerships, platforms). (NH Hotel Group [25]) (Figure 2.30)

Figure 2.30: Connections between business responsibility pillars, programs, targets and actions, and the UN SDGs (based on NH Hotel Group [25])

See the summarizing table for the applied SDGs in Appendix J.

All in all, the most commonly applied UN SDGs in the CSR reports of the analyzed hotels are:

8 - Decent Work and Economic Growth

12 - Responsible Consumption and Production

13 - Climate Action

17 - Partnerships for the goals

These re ect to the action areas and the relevant stakeholder groups of the sustainability strategies of the hotels.

Chapter 3

Expansion and analysis of the sustainable development model for tourism

In Chapter 3, the conceptual framework, the structure and the analysis of the design process of the model expansion is presented. First, key concepts for the expansion and structural design of the model are anchored. The concepts are embedded in the horizontal and vertical logic of the model. Some of these concepts link back to the analysis of ecolabel criteria in chapter 2 (see Figure 2.21). After the elaboration of the concepts, the analysis of scales and characterization is discussed more in details.

3.1 Overview of the expanded sustainable development model for tourism - Conceptual framework, directions and goals of the model

To expanded model introduced in more steps (the overview is presented later in Figure 3.4). First, the structure and the logic of the horizontal and vertical axes are explained separately in order to ground the understanding of the model and then, to elaborate its conceptual framework.

3.1.1 Analysis of the horizontal axis

The model focuses on the hospitality industry and its connection with the destination scale. This connection lays a foundation for the extension of action, operation and

process scales and also increases the complexity of issues that have to be considered, understood, planned and managed by actors (Ritchie et al. [50], European Commission [28]). Therefore, the horizontal axis of the model is divided into enterprise /hotel/, value chain /suppliers, events/ and destination /networks, municipality/ scales.

To anchor and ensure the overall understanding of the scales, key concepts have been highlighted at each scale in relation with each other as it is showed in Figure 3.1). Later in this chapter, the used de nitions and understandings of these concepts will be described based on their horizontal connections.

Figure 3.1: Highlighted key concepts of the model

Enterprise scale

The enterprise scale covers incremental changes and internal innovations mainly within the boundaries of the enterprise. This means operational optimization focusing on e - ciency that typically can be achieved without major changes in the structure and business model of the rm (just as in the Canadian model: Network for Business Sustainability [2]). Moreover, in the extended model of this study, the focus of this rst stage already aims beyond the boundaries of the enterprise, grounding steps for activities that can a ect the supply chain, such as green demands towards suppliers (Darnall et al. [66]). The concepts connected to the enterprise scale are:

Incremental changes

Cooperation

Internal innovation

Green demands to suppliers

Value chain

Including the value chain perspective (from suppliers to consumers), the second stage of the model, the rm expands its sustainability approach in uencing suppliers, partners and end-users in a more complex, systematic and controlled way. "Value creation requires the management of relationships with multiple suppliers and multiple customers", Wagner and Eggert [67]) therefore "marketing and supply chain management should converge around the concept of a value network" (Wagner and Eggert [67]) For this, the rm also transforms its business model, sets long-term partnerships and continuously searches for new opportunities to work and innovate in network and by this, create and deliver value in a broader spectrum. By focusing also beyond the rst tier suppliers, indirect environmental impacts that relate to the second tier suppliers can also be decreased (Darnall et al. [66]). With this change of focus area, a wider circle can bene t from the activities of the hotel increasing also the resilience and competitiveness of the concerned parties and destination. For example, the purchase of fair trade or other eco-labelled products provide added value for consumers and therefore possible competitive advantage to the hotel (Font and Buckley [9]). Also, it is an incentive for the hotel to optimize its supply chain and work with greener partners in order to ensure the sound supply of products and delivery of services (Font et al. [49]).
The following concepts have been highlighted:

Shared responsibility

Partnership

Innovation in network

Expanded green supply chain

Destination scale

While the hotel and the value chain perspective have been viewed from a bottom-up approach, the complexity of the destination scale makes the involvement of a top-down approach indispensable. (Ramm [68]) Even if bottom-up measures can have an e ect at destination scale, it must follow the directions of the local strategies. The relationship between the bottom-up and top-down approach has been highlighted also in the Destination 21 project. Regulatory authorities have to determine baseline requirements, environmental quality standards that set the directions of the destination to be more sustainable while in the same time, local tourism businesses have to set environmental performance standards that follow the top-down directions. (Ramm [68]) Therefore,

actions that aim to have e ect on destination scale have to combine the two viewpoints and involve stakeholders that is not feasible without partnerships and collaborations. By this, value creation and delivery processes have a focus on the destination, citizens and intangible elements as well, providing space for networking and opportunity for open innovation. These can base and form complex value networks. For example, the (co-)organization of local events provide intangible experiences and by this, broad bene ts and values for stakeholders. (OECD [37])
The related concepts are:

Destination

Collaboration

Open innovation

Value network

In the followings, the concepts will be described based on their horizontal connections.

Incremental changes are smaller changes, adjustments in the organization that do not a ect the core functioning and structure of the organization. These changes have rather small-term perspective (Knaggard [69]). It can include cleaner production solutions such as implementation of good housekeeping practices, substitution of hazardous materials and chemicals, process optimization and technological innovations (Kornov et al. [70]). These changes tend to be connected to tangible assets. However, in tourism intangible assets are just as important for competitiveness, and these cross the boundaries of the enterprise. (OECD [37]) Therefore, working with Corporate Social Responsibility (CSR) can extend the scale and scope of the issues that the rm focuses on (see analysis in Chapter 2).

A shared responsibility model for global supply chains introduced by the Global Agenda Council on Human Rights in 2015 addresses weak governance and unsustainable upstream business practice issues, focusing on human rights challenges. It recognizes the need for industry-wide systemic and cooperative approaches that engage wide range of stakeholders, including local business partners as well. (World Economic Forum's Global Agenda Council [71]) As it is stated:

> "(...) risks are greatest among the least visible sub-tier suppliers with whom companies have the little contact or in uence." (World Economic Forum's Global Agenda Council [71])

Therefore, long-term agreements and service contracts are needed along the supply chain (at global and local level) to ensure the stewardship role of core actors, also in sustainability matters. For example, Waart and Kemper state that service supply chain (that includes also the after-sales support of the products) should be viewed as "cross-functional core process" (Waart and Kemper [72]). This type of strong and long-term agreements need stable and trusting relationships between the related actors. Therefore, creating partnerships is:

> "the creation of cooperative business alliances between constituencies within an organization and between an organization and its suppliers and customers. Business partnering occurs through a pooling of resources in a trusting atmosphere focused on continuous, mutual improvement"(Wong [73])

Common understanding among the partners and common visions and goals are essential for this type of agreements that therefore, again, potentially require long-term commitments.

One of the main resources of tourism are the features of the place where the business is located. (Sziva [64]) Therefore,destination scale can not negligible even at hotel scale. Based on Pechlaner's de nition, destinations are the space where tourists gain experiences looking at it from the demand side, while from the o er/supply side, destinations are market and marketing units. (Sziva [64]) Besides of this more economic focused de nition, Ritchie has an understanding from a rather tourism management view:

> "(...) the destination is a fundamental unit on which all the many complex dimensions of tourism are based."(Ritchie et al. [50])

The de nition developed by the UNWTO opens up this understanding specifying elements and features of destinations such as: physical space, administration, tourism products (as a combination of tangible and intangible elements), value chain, stakeholders.

> "A physical space with or without administrative and/or analytical boundaries in which a visitor can spend an overnight. It is the cluster (co-location)

> of products and services, and of activities and experiences along the tourism value chain and a basic unit of analysis of tourism. A destination incorporates various stakeholders and can network to form larger destinations. It is also intangible with its image and identity which may in uence its market competitiveness." (UN WTO [74])

Combining these di erent viewpoints, destination can be interpreted as a uni ed, integrated tourist service provider or a multi-product company. (Sziva [64], Krippendorf [75]) This formulation can bring the di erent scales closer to each other, and help to manage them simultaneously and together, utilizing synergies.

These terms are used with their di erent shades of meaning in this study.Cooperation is a capability to work together and share ideas based on shared directions, linked goals, mutual respect, communication and commitment. However, cooperation is independent and each parties in the group has its individual tasks, responsibilities and share in the solution of the problems. (Blomqvist and Levy [76], Spence et al. [77], Paldam [78])

The main di erences between cooperation andcollaboration is that in the former, partners are connected by di erent individual goals however linked and pointing to the same direction while in the latter, the partners have common goals. (Haghsheno and Gehbauer [79]) Because of these common goals, collaboration is a more dynamic process (Kernel [1]), an interactive, coordinated and synchronous activity. It aims to construct and maintain shared conceptions and work on common issues and solutions, while maximizing bene ts and values of partners. (Saito and Ruhanen [80]) According to Blomqvist and Levy, there is a strong connection between collaboration and innovation as well:

> "Innovations, by nature, emerge in social interaction in which diverse actors share complementary knowledge. Collaboration capability is considered a prerequisite for actors if they wish to leverage such knowledge(Blomqvist and Levy [76])

Therefore, applying Oke et al. and Blomqvist and Levy statement, collaboration (as a prerequisite for innovation) is potentially a required factor for competitiveness.

Partnership can be cooperative or collaborative, its distinctive feature is that it is a formal relationship between partners with contractual bounds. (Bramwell et al. [81]) Therefore, it is a bridging category in the model between cooperation and collaboration with the function to formally ensure partners' compliance with commitments, demands and requirements. According to Bramwell, partnerships are:

> "(...) regular, cross-sectoral interactions between parties based on at least some agreed roles or norms, intended to address a common issue or to achieve a speci c policy goal or goals." (Bramwell et al. [81])

The type of partnership depends on how close is the relationship between partners and what is the aim of the partnership. In tourism sector, partnerships between stakeholders can be formed based on interests in the destination that these stakeholders located in and operating, and also on interest in mutual issues, such as sustainability. In any case, the main driver to form partnerships is to gain competitive advantage. At destination scale, this involves not just the dimension of economic performance but also social, cultural, political, technological and environmental strengths as well. (Ritchie et al. [50]) Tangible and intangible assets are equally important.

With other words, partnerships are relationships between partners, while cooperation and collaboration are more open and inclusive processes (Aarons [82]) at di erent levels of commitment and dynamism. (Figure 3.2)

Figure 3.2: Di erences between cooperation, partnership and collaboration

These detailed theoretical di erences of the concepts can be less distinguishable in practice however, highlighting them contributes to the understanding of the di erent shades of the stages in the model.

Internal innovation means creating new knowledge, disseminating it through inside the boundaries of rm and embody it in products, services and processes. (Nonaka and Takeuchi [83]) As it is commonly stated and con rmed in literature and practice, "innovation is a key resource of competitive advantage" (Oke et al. [84]). Fundamentally this statement is valid for every kind of innovation, such as internal innovation, however the innovation climate among other actors and competitors is determinative in the competition. (Oke et al. [84]) To keep pace with competitors and with the changing environment, innovation in network is needed.

> "Technological knowledge is critical, but no longer a source of sustainable competitive advantage. A new, fundamental factor in wealth creation is continuous knowledge creation and innovation in networks; complementary knowledge is needed in breeding innovative ideas for products and services." (Blomqvist and Levy [76])

Therefore, cooperation, partnership or collaboration are needed to share knowledge that is fundamental to generate new knowledge and innovate. (Blomqvist and Levy [76]) Forming networks and positively in uencing the innovativeness of partners in the network are key factors for innovation performance and to gain competitive advantage. (Oke et al. [84])

The terminology of open innovation was introduced by Henry Chesbrough in 2003, however similar practices have been existing in the past. (Huizingh [85]) There are di erent de nitions for this new terminology even by Chesbrough. The more recent one is:

> "Open innovation is the use of purposive in ows and out ows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively. (...) assumes that rms can and should use external ideas as well as internal ideas, and internal and external paths to market, as they look to advance their technology."(Chesbrough [86])

Based on this de nition, the di erence between network and open innovations is that however network innovation steps over the boundaries of the enterprise, it still has some limitations regarding inclusiveness of actors. Open innovation gives the opportunity to co-create new ideas and share it actors without limitations. Ideas that can not be utilized internally or in the network of the given entity, can be shared openly and be matched with the needs of other actors. (Huizingh [85]) Of course, risks and advantages have to be analyzed before sharing innovation ideas to avoid any possible generation of

competitive disadvantages. Despite of this, open innovation has the potential since it can create and strengthen collaborations and networks that are core elements for future competitiveness (Oke et al. [84]). Working with destination scale and the sustainability of tourism justi es even more the need for this opening up. Based on the statements and resources above, open innovation has the potential to have a key role in the process to nd comprehensive, collaborative and inclusive future strategic development directions for sustainable tourism embedded in destination scale.

Supply chain consists suppliers, transporters, warehouses, retailers and customers as well, all parties who are involved in the ful llment and delivery of customer requests. Green demands to suppliers and code of conducts can e ect the rst tier suppliers reducing the direct environmental impacts of the enterprise by implementing measures that ensure product quality and reduction of waste. (Darnall et al. [66])

However, for green supply chain management, core actors with stakeholders have to take environmental considerations and actions through the entire value chain involving all parties (suppliers, transporters, warehouses, retailers, consumers, end-of-life treatment providers). This means that these parties take their environmental performance and the quality of their products and services into account. Thereby, the core organization or rm (eg. hotel) can reduce and mitigate their direct and indirect environmental impact as well. (Darnall et al. [66])

The value chain and network of the tourism industry is composed of many factors and actors since it is interdependent by many sectors such as transportation or hotels. (Ylmaz and Bititci [87]) Moreover, tourism is based on tangible features, attractions and intangible contents, experiences as well where customers also trigger and create value. (OECD [37])

> "The tourism product is produced in interaction with the customer and the customers have to be imported to the arena of production, to the destination" (Grangsjo [88], Ylmaz and Bititci [87])

Because of these features, the direction from chain to network understanding is implicit. Value network understanding and analysis is unavoidable especially for dematerialised products and services that are core elements of tourism. Moreover, instead of the linear, step-by-step concept of value creation from manufacturers/provides to end-users, "value

is co-created by a combination of players in the network". (Peppard and Rylander [89])

The common understandings of tourism value chain and network in the academic literature after the millennium consist elements from the decision-making of tourists until the evaluation of the experiences by the tourists. For example, Ylmaz and Bititci name these elements and parts: customer order (customer, tour operators or agents), pre-delivery (tour operators or agents), delivery (customer, suppliers and providers of transport, accommodation, activities), post-delivery support (customer, tour operators or agents, providers). (Ylmaz and Bititci [87]) Holloway works with similar elements and parts (private supportive services, public supportive services and providers, focusing on travel agents and tourists) but he broadens up this understanding and also covers educational institutions under the public supportive services category. (Holloway [90]) Following this direction, the expanded understanding of tourism value chain has even bigger emphasis on the destination and its residents, and therefore also on intangible contents and experiences (OECD [37]) that overlaps with the strategic directions of sustainable tourism.

3.1.2 Analysis of the vertical axis

The vertical axis of the model categorizes criteria groups. (Figure 3.3) The categorization is based on not only the existing models presented in Chapter 2 but also re ects back to the criteria groups of ecolabels (Chapter 2.1.2) and the action areas of the sustainability/CSR reports of the introduced hotel groups in Chapter 2.2.

The criteria group of operative actions covers more technical measures that focus mainly on e cient use and management of water, energy, renewables and waste. Major part of the ecolabels related to sustainable hotel management set criteria for this features (see Chapter 2). Besides these, there can be also di erent criteria categories such as measures related to social responsibility or the management of green areas/gardens. Depending on the scale and e ects of these measures, these type of actions can be included in and shift to the host community support group in the model of this study. For example, arranging the water catchment system of an area at a bigger scale (such as a park managed by a hotel) inherently can have e ects on the host community.

The group of common strategies and operational directions includes formal documents like environmental policy and commitments, environmental objectives, e ciency targets, statement of purpose and value, sustainability goals (etc.), and also the documentation of compliance with regulations. The broader is the scale that the company/organization wants to meet with, the broader the spectrum of partners and issues

Figure 3.3: Analysis of top-down and bottom-up perspectives in the vertical axis

that the documents have to apply to. Concrete actions that are planned, maintained or have been done in the company/organization, such as implementation of new technologies to reduce consumption or improve e ciency can be mentioned in this section as well.

The section of engagement of sta , guests, tourists and citizens focuses on approaches how to involve stakeholders in sustainability issues. It includes for example, speci c requirements towards sta for environmental friendly practices, surveys about customer satisfaction and perceptions, public participation or, from top-down approach, creation of industry-wide sustainability certi cation programs (Global Sustainable Tourism Council [58]).

The criteria group of partners and supply chain management includes for example code of conducts, green demands, initiatives to improve suppliers' sustainability performance or the support of local partners and suppliers.

There are speci cally close interconnections and signi cant overlaps between the section communication, knowledge management, innovation and the other sections. The inter-connectivity of this section is also indicated in Figure K.1 (elaborated later) by the circle layout with connection to all the other sections. Communication, knowledge management and innovation includes trainings, education programs, aspirations for continuous improvement or searching for new opportunities, markets, elds (Network for Business Sustainability [2]).

Monitoring and maintenance has a support and backup function. Its basic requirements are formulated also in the strategic and technical documents that are under the "common strategies and operational directions" criteria group. Monitoring and maintenance are fundaments of continuous improvements, therefore also connected to all the other criteria groups indicated again by the circle layout in Figure K.1. The detailed requirements and output data of monitoring and maintenance are included in this separated monitoring and maintenance section, such as design of reward systems, incentives or evaluations. Separating this section follows also the logic of the PDCA model that has been applied also in the ISO standards (International Organization for Standardization [18], International Organization for Standardization [8]).

The last group in the model is host community support that can cover actions that are planned, maintained or have been done in the company/organization connected to CSR focusing mainly on the local community. For example, donations, promotion of cultural heritage or organization of sustainable events.

Above, the separate analysis of the horizontal and vertical axes have been elaborated that showed the interdependence and complex relations between scales and criteria groups. Beyond this separative approach, the model sections horizontally and vertically also interconnected. With this in mind, the overview of the conceptual frame and structure, with the descriptive positioning of action areas is presented in Figure 3.4.

An elaboration on the relations between the two axes are presented in Appendix K.

Figure 3.4: Overview of the redesigned sustainable development model for tourism

3.2 The Canadian and the 4-step models - Adjustment of scales

Two existing sustainable development models have been analyzed and adopted to shape and frame the model used in this study. The models have been introduced in Chapter 2, align with the description of the development of relevant management tools. The comparative analysis of the models elaborated in this section.

Figure 3.5 shows the four-step sustainable development model with the toolbox expansion for sustainable development in tourism enterprises. (Kernel [1]) In each steps (good house-keeping, environmental management, front-runners, sustainability), the possible indicators are grouped up to activity indicators, performance indicators, communication elements and stakeholder relations following the possible di erent management departments in enterprises. The activity indicators provide the basis for the other indicators since it founds the sustainability attitude and directions in the company by formulating the environmental policy, appointing the responsible people and ensuring the compliance with the basic requirements and regulations. (Kernel [1]) The performance indicators cover more concrete actions and measures that can be implemented. The communication elements cover the transparent information dissemination internally and externally, related to sustainability in the enterprise. Moreover, it also consists the engagement and

Figure 3.5: Kernel's detailed four-step model (Kernel [1])

awareness raising of the local community and tourists. Finally, stakeholder relations focus on the network building and engagement of employees, local networks and suppliers in order to expand the value chain and to not just mitigate and prevent negative impacts but also enhance positive e ects on the local community. (Kernel [1])

One the other hand, the three steps of the Canadian model (Figure 3.6) focuses on operational optimization, organizational transformation and systems building. (Network for Business Sustainability [2]) The operational optimization consists e ciency measures, while the organizational transformation aims to discover new market opportunities by the redesign of the business model of the company. The systems building step fosters the creation of networks in large-scale. The indicators in the vertical axis are divided into eight groups as it can be seen in Figure 3.6.

The combination of the two models founded the structure of the expanded model of this study. The comparison of the structures of the two models and the implementation of these into the expanded model are presented in Figure 3.7 (horizontal structure) and 3.8 (vertical structure).

Figure 3.6: The detailed Canadian model (Network for Business Sustainability [2])

The enterprise scale of the horizontal axis of the expanded model consists element of good house-keeping, operational optimization, environmental management and also internal elements and changes that drive organizational transformation. The value chain scale covers external elements for organizational transformation focusing on external relationships between partners. This leads to system building also beyond the boundaries of the enterprise that can make it front-runner among its competitors. And nally, for the destination scale, overall sustainable system building and its complex management are needed that inevitably involves the top-down approach perspective.

Figure 3.7: Comparison of the horizontal structure of the models

In the vertical axis, common strategies and operational directions aligns with activity indicators, targets and guidelines and leadership, governance and planning. In the models, these sections cover environmental policies, goals and directions set by top management. Performance indicators are provided and used for monitoring and maintenance that is based on organizational structure (reviews, transparent sustainability reporting). It is also connected to the planning and implementation of operative and host community support actions that aligns with the more concrete tools and platforms section from the Canadian model (for example, "resource and energy reduction" or "learning from local rms"). There is a clear straight connection between the three models in relation to communication and knowledge management, however the expanded model also speci es innovation (for example: trainings, tourist information, internal communication). And nally, the stakeholder relations has di erent sorting in the models. The extended model focuses on "upstream" and "downstream" stakeholders in the sense that it groups the engagement and management of stakeholders based on their direct or indirect connection to "end-users" (tourists, citizens).

Figure 3.8: Comparison of the horizontal structure of the models

3.3 Ecolabel requirements - Indicators

The requirements of the EU Flower, GreenKey and NordicSwan ecolabels are analyzed in Chapter 2 focusing on the recommended or possible new requirements that indicate the directions of the criteria development. (GreenKey [10], European Commission [14], Nordic Swan [12]) Some requirements have been highlighted and categorized. These requirements are also included in the expanded model as indicators.

Figure L.1 in Appendix L shows the detailed structure of the expanded model. The elements in red are the requirements from the ecolabel analysis that indicate the directions of the criteria development. (see Chapter 2.2.2)

The requirement for the procurement of ecolabelled products is already in the enterprise scale of the expanded model. However, the complex purchasing policy for the procurement of ecolabelled and fairtrade products in uencing also suppliers is in the value chain scale. The destination scale adds up to this with the focused strategic procurement of local products, working with local suppliers.
In case ofenvironmental management systems , it is already included at in the rst stage. In the value chain scale, the enterprise has a requirements also towards suppliers and partners to be certi ed. In the destination scale, integrated destination management with sustainability strategies and multi-stakeholder engagement is needed.

See Figure L.1 in Appendix L

Chapter 4

Application of the expanded model to case studies

As a theoretical map for the case studies in this study, relevant basic actors and stakeholders are organized and positioned in a simpli ed value network of tourism destinations. (Figure 4.1) Collaborations and sustainable management of service providers such as hotels can enhance the destination and therefore provide added value for stakeholders. Besides management, informative marketing is also an important factor to raise awareness, change behaviour and in uence the choice-making of tourists. (Font and Buckley [9], GreenKey [10], BookDi erent [61])

The case study of Scandic Hotels is included in this study as an example for the enterprise level. The case study is introduced by applying the expanded model with the recommended ecolabel criteria as indicators. Finally, possible applications of the UN SDGs are presented with the attempt to nd strategic linkages between the scales.

Figure 4.1: Added value input points of ecolabels in a theoretical value network of tourism (simpli ed)

4.1 Scandic Hotels

The rst hotel opened in 1963, that time the name was Esso Motor Hotel. It has benn changed to Scandic in 1984. Scandic Hotels operates under one, fully-owned brand. The international chain located in Sweden, Norway, Denmark, Finland, Germany and Poland. (Scandic Hotels [26])
Responsible business is a core topic for the enterprise. The hotel chain is a frontrunner in sustainability since decades. As it is formulated in the group's 2017 annual report: "Sustainability is not just a responsibility for Scandic, it is a business opportunity." (Scandic Hotels [26]) The rst innovative idea was triggered by economic reasons to save money. But it became a game changer for Scandic. The idea was the reuse of towels: guest can decide and show if they want their towel to be washed which case they can throw it on the oor. If it is hanged it means that they will still use it. It saves money, water and chemicals. This idea from 1994 became a standard in the whole industry. (Appendix A) Scandic is continuously working on nding new ways and smart solutions in the every-day work of the hotels.

> "We are trying to get the new towel idea. To take care of the planet, also maybe to save some money and do a new branch or industry standard." /Nina Carlslund, General Manager of Scandic Aarhus City Hotel, and CSR Coordinator of Scandic Hotels in Denmark/ (Appendix A)

Environmental strategy and operational directions

The sustainability strategy of Scandic is based on a materiality analysis (relevance and importance) with all the relevant internal and external stakeholders: owners, investors, sta members, employees, future employees, guests and customers, non-governmental organizations, business partners. (Scandic Hotels [26]) The general core question was that what sustainability related issues are important to work with in a hotel business. What are the expectations of the customers and what issues are important to other stakeholders and for Scandic. Economic sustainability is needed for responsible business practice. (Appendix A) The materiality analysis is re-evaluated annually ensuring topicality and continuous improvement.
Four main focus areas have been selected for the sustainability strategy (Appendix A, Scandic Hotels [26]):

Diversity and Inclusion

Health

Reduction of CO2 emission

Waste reduction

These areas are the main points where the hotels with concrete actions and programs can engage to global sustainability issues. Besides these areas, Scandic also identi es basic responsibility issues and the perspective to inspire in a larger scale. (Figure 4.2) (Scandic Hotels [26])

The Executive Committee of Scandic is in Stockholm. The decisions about the set sustainability targets and goals are decided by them. Beyond the goals and targets of the sustainability strategy and the requirements of the ecolabels, the level of proactiveness and innovativeness can signi cantly depend on the general manager and on the hotel. The CSR of Scandic covers all the identi ed sustainability areas. The social dimension is driven by mostly the human resource department which works with the goals health and well-being, and diversity and inclusion. The environmental dimension with the goals related to CO2 emission and waste are in the CSR coordinators' and the General Managers' responsibility. (Appendix A)

> "The best place for CSR to be is everywhere but we are not there yet."
> /Nina Carlslund, General Manager of Scandic Aarhus City Hotel, and CSR Coordinator of Scandic Hotels in Denmark/ (Appendix A)

Figure 4.2: Categorized sustainability action areas in Scandic sustainability strategy (Scandic Hotels [26])

The responsible people for the direct management of CSR are the director and the sustainability o cer of the human resource department in Stockholm. Connected to the department, all countries have one or more CSR coordinators. A sustainability group have been founded where the coordinators meet twice a year besides the regular communication. Moreover, the General Managers of each hotels have the responsibility to ensure that the hotel follows the CSR requirements. (Appendix A)

Scandic does not work with the ISO standard for environmental management. The hotels frame their environmental management using the ecolabels as management tools. (Appendix A) Scandic works with the Nordic Swan ecolabel in the Nordic countries and with the EU Flower and the GreenGlobe ecolabels in Poland and Germany. 90 % of the hotels are certi ed. (Scandic Hotels [26])

Employees, suppliers and guests

Scandic works with a Code of Conduct for employees that is based on the ten principles of the UN Global Compact. (Scandic Hotels [91]) It is in line with the diversity and inclusion policy, and the health related strategic goals and targets as well. Several programs and actions are embedded in practice, such as work experience program for people outside the labor market. Healthy meals and good work-life balance are also

focal points in the strategy. All in all, one of the visions of Scandic is to be a "corporate citizen" at all levels. (Scandic Hotels [26])

The hotel group has a Code of Conduct also for suppliers that is also based on the ten principles of the UN Global Compact. The Code of Conduct speci es four environmental requirements: reduction of impacts, environmental program, risk management plan, policy and procedure for the traceability of speci c mineral. (Scandic Hotels [92]) All suppliers have to pass a sustainability screening and sign and follow the principles of the policy. (Scandic Hotels [93] The compliance is checked by self-audits and some cases by on-site inspections by Scandic or third-parties. All supplier agreements and contracts are looked through by the procurement department. (Appendix A)
Connected to the supply chain, Scandic have a Food for All strategy that ensures diverse selection of food including gluten-free, vegetarian, organic and local options. 25 % of the breakfast items are ecological. (Appendix A) For the reduction of food waste, the hotels collaborate with Karma, Too good to go and with Win-now. (Scandic Hotels [26])

Guest are encouraged to take part in the sustainability initiatives of the hotels. Information about sustainability are displayed in the hotel and the website. For example, there are selective waste bins in the rooms and information about the towel policy. The hotels use and promote tap water, the only bottled water are in the shop, and they are also CO2 neutral. The use of tap water also reduces the impacts of transportation. Moreover, some of our bu ets serve mealworms as a sustainable food option. (Appendix A)

> "We try to push our guests a little bit to be a little more aware that we have to take care of our planet, but in a fun way."/Nina Carlslund, General Manager of Scandic Aarhus City Hotel, and CSR Coordinator of Scandic Hotels in Denmark/ (Appendix A)

Communication, knowledge management and monitoring

Scandic Hotels work with a new digital learning and communication tool that enables employees to keep in contact and share knowledge internationally. Leadership training programs have been established with the tool but it also provides trainings to other employees since the end of 2017. (Scandic Hotels [26]) Connected to CSR, personal meetings are organized twice per year with the involvement of all CSR coordinators. (Appendix A)

Scandic Hotels has an own reporting system that works with the data of the individual hotels. (Scandic Hotels [26]) An assistant is responsible to collect all the data from the

navigator system of the hotels where the technical department reports the data every month. From 2018, the system will make the data available also for the centralized analysis and documentation. (Appendix A)
Scandic monitors energy consumption, CO2 emissions and the amount of generated waste. The CO2 emission of the hotels signi cantly decreased mainly because of the better monitoring, updated emission indicators for CO2. The monitoring process considers direct (for example heaters), indirect (bought energy from suppliers) and other indirect emissions (travels of employees, based on third-party reports), broadening the scope and complexity of the monitoring. (Scandic Hotels [26])
Moreover, safety inspections, employee and guest surveys, and personal dialogues between managers and team members also ensure feedbacks. The results of the analyzes are communicated by the annual sustainability report of the hotel group. The report follows the General Reporting Initiative (GRI) standard (Scandic Hotels [26]).

Host community support

Scandic has a Scandic in Society program. According to this, hotels have to take part in and provide resources for at least three activities per year that support local communities. These can be both internally or externally organized events or other actions. (Appendix A)
The hotel group has several cooperations with companies, organizations and authorities with the aim to create social value. In Denmark, Scandic is member of Dansk Erhverv CSR netvrk (industry network) and ReFood (collection and distribution of leftover food). (Scandic Hotels [26])
The hotels have focus on the local features that are presented on the individual websites of each hotels. (Sandic Aalborg City [94]) However, the degree of the additional, proactive dialogue with the given municipalities (beyond compliance) depends on the General Managers and the given hotel. By complying with the ecolabel requirements, there are already actions and initiatives embedded in the environmental management that have an e ect on local communities directly and/or indirectly. (Appendix A, Scandic Hotels [93])

Recommended requirements of the ecolabel schemes

The criteria of di erent ecolabel schemes have been analyzed in Chapter 2. The ratio of the recommended and the imperative requirements, and their topic areas have been studied. The recommended elements have been included in the expanded model as indicators. The model is applied to this case. (Figure L.1)
Current sustainability related programs and actions of Scandic have been collected based on the interview (Appendix A) and the CSR related documents (Code of Conduct for employees and for suppliers (Scandic Hotels [92], Scandic Hotels [91]), Environmental Policy (Scandic Hotels [93]), Diversity and Inclusion Policy (Scandic Hotels [95]), 2017 Annual Report (Scandic Hotels [26]) and Guideline to Sustainable Procurement (Sandic Aalborg City [94])). These actions and programs are applied to the expanded model and compared to the recommended requirements of the analyzed ecolabels. The Scandic actions and programs that are align with the recommended requirements are red in Figure 4.3. The recommended requirements that have not been mentioned in the resources are:

Reuse of waste water

Collection and use of rainwater

On-site composting

On-site renewable energy generation also for local suppliers

(These are based on the general CSR data. The elements may di er in the di erent individual hotels.) Detailed description of the procurement of materials is available in the Guideline for Sustainable Procurement (Sandic Aalborg City [94]) that have a life-cycle perspective however, it does not mention speci cally the use of local materials to re ect local features. Lastly, Scandic prioritizes partners with third-party ecolabels and certi- cations however highlights the requirement for ecolabels rather than for environmental management system standards (like ISO 14001). (Appendix A) Most of the initiatives are in the enterprise and value chain scale. The elements that reach the destination scale are:

Procurement of local food

Focus on working with local partners

Local employment

Vision to be "Corporate citizen"