

## **Green meetings in the hospitality industry**

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Bachelor's Thesis  
DP in Hotel, Restaurant and  
Tourism Management  
2013



Degree Programme in Hotel, Restaurant and Tourism Management

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<p><b>The title of your thesis</b> Green meetings in the hospitality industry</p>	<p><b>Number of pages and appendices</b> 56 + 10</p>
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<p>The object of this research thesis is focused mostly on green meetings in the hospitality industry to be environment friendlier. It concerns what the hospitality industry and especially hotels can do within their meeting facilities to be environment friendlier and sustainable.</p> <p>The research will start with an introduction and a first impression of the reasons for the appearance of green meetings. Then the theoretical framework starts with the summary of green meetings and green technology. It will also provide information about possible certifications for the hospitality industry in the field of green meetings.</p> <p>The study includes both primary and secondary data, which were all collected, from books, websites, articles, interviews and observations. So it is a qualitative method which was chosen for this thesis.</p> <p>Furthermore it will also show if there is a customer demand for Green meetings and an analysis of the results which were found during the research.</p> <p>Lastly there is the conclusion of this thesis which will review the whole research. It will provide answers to the research questions as well as evaluate the whole process of the thesis. Furthermore it will provide suggestions and recommendations for future studies in this field.</p>	
<p><b>Key words</b> Green meetings, green technology, sustainability, environmental awareness, hospitality industry.</p>	

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# 1 Introduction

The hospitality industry comprises a wide range of businesses that provide different services and facilities such as accommodation, food and beverage, entertainment, gaming, technology and lots of other related products. This means, that this industry sector has to concentrate not just on one part, but on the whole sector itself to keep customers happy and satisfied. The following report will provide the reader with information about the domain of green meetings and technologies within the hotel sector.

The statement “going green” is no longer just a trend, but it has become a really important topic and it should be considered in today’s businesses to remain competitive. This thesis will describe and analyze the trend of green meetings and the technology which is used within the hospitality industry. It will provide information about positive and negative aspects of these trends from the industry’s point of view and the customers view. Furthermore it will expose if the industry may have to change some of their operations or strategies to keep up and be on top of this trend of green meetings. Especially in these days, with the globalization growing faster, it is getting more important to be environment friendlier and sustainable. In the last few years the hospitality industry grew faster than every other industry branch, with new destinations, locations and new trends and it became more and more interesting to today’s consumers. These consumers are more aware and curious of the issue of being “green” and also concerned about the environment.

For the hotel business this means that customers and guest are more interested about new inventions in the ecological field and how hotels handle them to create new unique selling points for their businesses. Furthermore it is important for hotels how they can reach their customer target group in that domain. The author believes that particularly the hospitality industry can take a step forward in being more ecological and sustainable.

## **1.1 Research Subject and Question**

The research subject of this thesis is “Green meetings in the hospitality industry”. As the author of this thesis was really interested in the topic of being ecologically aware, especially in the hospitality industry it was not hard to find the right topic. After lots of research in hospitality magazines, the internet, several kinds of articles and brainstorming with the supervisor it concluded with this research subject.

Within the research problem there are several questions chosen by the author, of course with the help of the supervisor about the topic. The research questions of the study of this thesis are the following:

- 1) What are the reasons for the appearance of green meetings and green technology?
- 2) Is there any special technology which could help to be greener within the meeting facilities of a hotel?
- 3) Is this a competitive advantage against other hotels or businesses, of providing a green meeting service?
- 4) Are green meetings and green technologies good investments for hotels to be more sustainable and to save costs?

## **1.2 Aim of the Study**

The aim and the important focus of this thesis will be on the green meetings and green technologies hotels are using presently to be environment friendlier and sustainable.

The first person to benefit from this thesis is the author herself as she will learn new objectives which are related to green meetings and the different kinds of technologies used in these days. Companies within the hospitality industry may use this thesis to get

an overview of what they can change in their business to be ecologically friendlier and sustainable, especially in the field of the meetings.

The author hopes hotels or even businesses which are working in the meeting sector may use the recommendations and suggestions to keep on moving and work on future projects of green meetings. It is also the aim to present technologies that minimize pollution and the carbon footprint of hotels in the field of green meetings within the hospitality industry.

### **1.3 Research Methods**

In order to reach the best results of the thesis the author used different research methods. To receive a first overview about the topic literature reviews like: books, journals, newspapers, magazines and the internet were chosen. It helped to understand the topic and to give first impressions how to work with the topic.

For the second part, the author participated in the “greenmeetings und events Konferenz 2013” in Darmstadt, Germany, from the 26.02.2013 to the 27.02.2013 (Green meetings und events 2013a). It helped to become an even closer look at the topic This conference gave the opportunity to receive different views from experts in the field of green meetings which assisted the author a lot in writing this thesis.

Furthermore primary research was done by interviewing experts in this field. These interviews took part mostly within the conference in Darmstadt, but also via face to face meetings.

Within studies at the Haaga Helia University of Applied science the author had to fulfill a six months internship in a hotel. During that time the author also had the opportunity to get the matter of being more environmental friendly and sustainable, better in view. The internship was a good way to find out where the hospitality industry is heading and found positive and negative aspects in this industry.

The reason why all these methods were chosen was the possibility of getting to know different views to ensure that the topic is understood and implemented correctly for this thesis.

Within a detailed analysis of the primary and secondary research, a huge amount of data was to be analysed, but the outcome at the end was worth the invested time.

#### **1.4 Research Purpose and Justification**

The main purpose and motivation of choosing this topic, was the personal interest the author has in the field of “green meetings to be environment friendlier and sustainable”, especially in the hospitality industry. The author believes that hotels can do more in the field of green meetings and technology to be more effective.

#### **1.5 Contents of the following chapters**

In the following chapters (chapter 2, 3 and 4) the author provides the reader of this research with the theoretical framework. The reader will be presented with information to enable a good understanding as to the field of green meetings and also some facts about green technology in the hospitality industry.

Chapter 5 will briefly explain certification options for the hotels in the field of green meetings and green technology.

The methodology will be clarified in Chapter 6 with the methods used in detail and the way in which the research was conducted. Furthermore it will be shortly discussed if there is a customer demand in the hospitality industry.

The last two chapters, 7 and 8, are about the findings and data analysis and the conclusion of this research. Additionally the reader will be provided with suggestions for further research and possible improvements of the delivered topic.

Finally, there is the Bibliography showing all used literature and medias which were used for this thesis.

## 2 Reasons for the Appearance of Green Meetings

There are lots of different reasons for the appearance of Green meetings. Just to write this thesis about green meetings is not enough, the reader also has to understand why they appeared and that it is important to keep them and to develop them further. This chapter discusses the reasons for their appearance with a particular view on the climate change, change of travel behavior, the social change and corporate social responsibility.

### 2.1 Climate Change

The climate change is a huge and important topic. The need for environmentally friendly products and services can somehow partly be explained by the climate change. Evidence for changes in the climate can already be seen, such as the temperature increase of the earth. Due to the temperature rise the glacier and the Polar ice caps are melting and are followed by a rise of the sea level (Latif 2006, 32).

One cause of the climate change is the greenhouse gas emissions, which daily reach constantly the atmosphere. The global CO<sub>2</sub> emissions in 2011 were 34 billion tons. This was an increase of 3% compared to 2010. The fact is that the CO<sub>2</sub> emission in some countries which belong to the Organization for Economic Co-operation and Development (OECD), was decreased. In the European Union by 3% and in the United States by 2%. But on the other side there are countries like China and India where the emissions increased by 9% and 6%. Even if one side lowers the emission of CO<sub>2</sub> like the European Union or United States, in the developing countries the emission rises due to the economic growth of the countries. This creates a balance of the emission or an even higher CO<sub>2</sub> emission which has happened in 2011. It should be the other way around, all countries should decrease the CO<sub>2</sub> emission (PBL 2012).

Europe wants to achieve the goal of cutting emissions by over 80% by the year 2050 and therefor created the Energy Roadmap 2050 (Oettinger 2013, 14-15). Energy Commissioner Günther Oettinger stated during a conference on the 15. December 2011 in Brussels:

Only a new energy model will make our system secure, competitive and sustainable in the long-run. We now have a European framework for the necessary policy measures to be taken in order to secure the right investments (Europa 2011).

The new energy model shows that by the year 2050 renewable energies will have a share of around 55% in the European Union. As Mr. Oettinger says it is a long term goal and all have to be on the same side to reach this goals. It is the aim of the roadmap 2050 to achieve a low-CO2 energy system by the year 2050 in that way the competitiveness and energy security in Europe can be improved (Oettinger 2013, 14-15).

The Climate change is a serious issue and there must be a development to work together towards sustainable lifestyle changes to reduce the climate change and to stop it permanently.

## 2.2 Travel Behavior

As the diagram from the world Tourism Organization shows the travel behavior changed a lot from 1995 until today. In 2012 it was the first time that, in just one year, over one billion international arrivals were made worldwide. These are not just tourists but also people who may participate in events and meetings even if they are just staying overnight. Probably in the future this rate will be even higher.

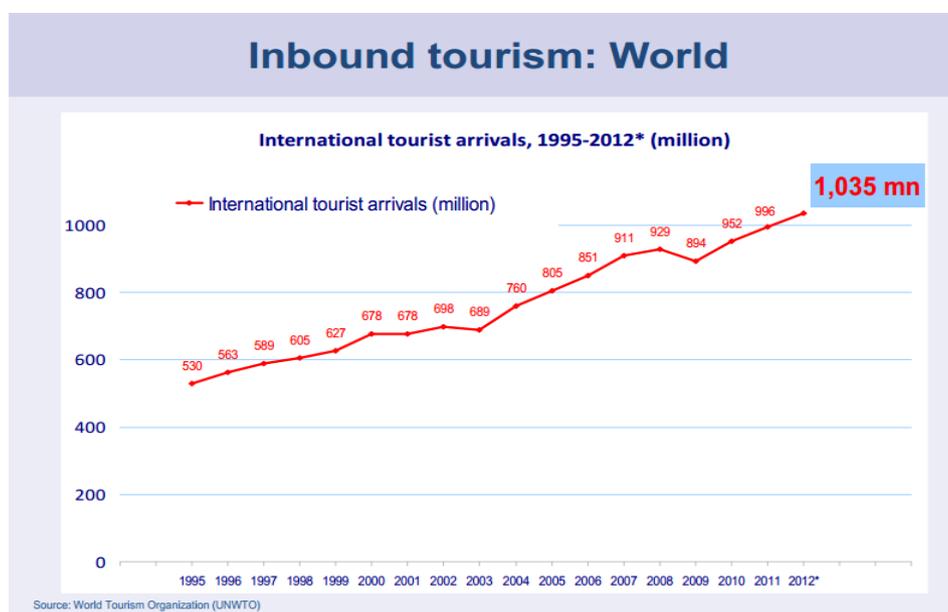


Figure 1: International tourist arrivals, 1995-2012 (UNWTO 2013a, 4).

It also shows that it is getting easier to travel and that people want to explore and see the world. Especially hotels should pay a special attention to this diagram due to the fact that there will be more and more travelers in the world in the future. What are the reasons why they travel? The World Tourism Organization found out that:

- 51% are leisure, recreation and holiday travelers
- 27% visiting family and friends, health or others
- 15% business, professional
- 7% not specified (UNWTO 2013b).

As it was said there were 1,035,000,000 billion travelers 2012 and 15% of them were business or professional travelers. All in all that makes a number of 155,250,000 million business travelers. Probably not all of them stayed in a hotel but still this huge number is also a good example for the hospitality industry and hotels to work with.

Petra Hedorfer, Chairman of the German National Tourist Board (DZT) and Chairman of the board of the GCB (German Convention Bureau eV) said during the 2<sup>nd</sup> green meetings and events conference: "It is our job to pick up the customers and to supply them with arguments to practice sustainability" (Hedorfer, P. 26 Feb 2013). This is a really good point as hotels should take this quote in consideration to create a strategy or even work together with other hotels to share new ideas and inventions to be more sustainable and environment friendly.

It is hard to tell what this means for green meetings. On one hand if the number of business and professional travelers is rising the hotels and meeting facilities have to be more sustainable than ever before, on the other hand, as companies are also starting to think more sustainable it could also mean that the number of this travel group could decrease due to better communication technologies like telephone or video conferences instead of traveling to a meeting. It could defiantly mean that the travel behavior in this group is changing but in which direction only the future can tell.

### 2.3 Consumer Change

Probably, some years ago society was not really interested in being green, but since the mega theme “climate catastrophe” came up, it is in our daily practice to be environment friendlier and greener (Wenzel, Kirig & Rauch 2008, 10). The media has still a huge role in the social change and is also a reason why green meetings are important. The ever increasing presence of the climate change has ensured that the population is sensitized to sustainability. With the changing society from fun towards nature and authenticity the preservation of the environment is becoming more and more important. Especially in the branches of food, bio-food, health and also tourism the trend is fast growing.

A good example for this social change is perhaps the group LOHAS, which means Lifestyle of Health and Sustainability. The first time it was really mentioned was in 2000. These people are interested in health, community, nature, quality and a healthy way of living. Everyone can join and it does not matter what age they are or from which population class they come. The Natural Marketing Institute in the United States estimates the potential market for LOHAS in 2010 of about 424 billion. US-Dollars. This money is divided in: personal health \$118 billion, eco tourism \$24.2 billion, alternative energy \$400 billion, alternative vehicles \$6.1 billion, green building \$49.7 billion, natural lifestyles \$10.6 billion and socially responsible investing \$ 215. Furthermore the Natural Marketing Institute prognoses that until 2015 the figures are expected to be doubled (Wenzel et al. 2008, 17).

As the example shows there is a consumer change which started several years ago. These people are more focused on being green and environment friendly and they expect the same when they travel. The group does not just include leisure travelers but also business people who have these expectations as well. For example during a meeting they want seasonal food from regional farms just to mention one. Another section in the hospitality industry where sustainability can appear is in the field of green meetings which will be explained more thoroughly in the next chapter.

## 2.4 CSR (Corporate Social Responsibility)

Corporate Social Responsibility or abbreviated CSR, is also a major topic at present and thus includes a part of the hospitality industry and green meetings.

Corporate Social Responsibility is an extremely complex term and it is hard to find the right definition because it is a varied and diverse topic. Besides that probably each company has to find their own Corporate Social Responsibility guidelines which are fitting to their business. There are two really good definitions for Corporate Social Responsibility. One, is from the European Commission, states:

A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis. To fully meet their corporate social responsibility, enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders, with the aim of:

- maximizing the creation of shared value for their owners/shareholders and for their other stakeholders and society at large;
- Identifying, preventing and mitigating their possible adverse impacts (European commission 2011).

The other one is from Hai Van Duong Dinh, who wrote a dissertation about corporate social responsibility and he explains it like this: That CSR is the proactive transfer of ethical and philanthropic responsibility which is conditioned on compliance with legal commitments and the desire for economic goals (Dinh 2011, 17).

Both definitions mean that Corporate Social Responsibility should and must be a statement of the companies specifying their approach towards a better environment and more sustainability. The interest of Corporate Social Responsibility has importance for both sides as it is an interest for the companies and also for society. In detail it also means to encourage the company to stand up for their employees, the environment and all other stakeholders and work together as one (Lotter & Braun 2011, 9). Every single one in a company should also take responsibility and not just wait on what others are doing.

Especially in the hospitality industry you have to be honest with everyone, regardless if it is an employee, a guest in your business or a partner company you are working with. The customers and guest are becoming more aware of the topics sustainability, green meetings and being more environmental. They want to know where the products are coming from and also the service which stands behind it. Due to this honesty and kindness a hotel or a company can separate itself from its competitors and can ensure that guests/customers return even if times are more difficult. It is a long term goal and it is built on a good relationship with employees, customers, partners, and communities. All in all it can be said that CSR is also a reason why green meetings play a part in today's hospitality industry.

### **3 Green Meetings**

“Every year over 80 million people around the world attend a meeting or conference and even more attend trade shows or exhibitions.” (Manchester city council, 2).

As this quote states millions and millions of people attend meetings around the world every year, it is therefore indispensable to think sustainably, especially with this large number in the meeting segment.

As an example in Germany a third of all hotel stays comes from the meeting and convention business. In 2011, 2.25 million congresses, conferences, meetings and seminars were organized with 101.5 million participants all over Germany. The event industry is an important economic factor. In 2011 it achieved revenue of 66 million euros, which is an increase of 3.5 percent compared to the year 2010. Of the approximately 11,150 event facilities in Germany, 93 percent take place in hotels (Kwidzinski 2012).

In the following chapter the author will provide the reader with information as to the main topic of this thesis. It starts with the definition and significance of green meetings, followed by the environmental impact of a meeting in the hospitality industry. Furthermore it will give facts as to what is included in a green meeting and what an hotel should pay attention to in that particular field. At last there is the aspect of why an hotel should plan green meetings and what motivations they have for doing this.

#### **3.1 Definition and Significance of Green Meetings**

The term green meetings describes a designed, organized and implemented method to minimize negative environmental impacts and leave a positive legacy for the community. When pointed toward a green meeting in the international debate it includes health and social aspects, which should also be taken into consideration when aiming for a ‘sustainable’ event (UNEP 2009, 9).

Green meetings do not just include the environmentally friendly arrival at the hotel, waste management or catering just to mention some examples, but also the whole concept of the event, all aspects of the planning process have to be included, like:

- Preparation
- Implementation
- Follow up of the meeting

Furthermore the hotel or company has to make choices on all planning levels of the meeting, for example, serving condiments like ketchup and sugar from bulk containers. Green meetings should also include combining social aspects, like charitable donations or projects, that favour the community (Meet Green 2013).

### 3.2 Environmental Impact of a Meeting

During a meeting the environment will be burdened in different aspects. It is difficult and complicated to tell which aspect harms the environment the most, because often at a meeting several different influences occur. Besides the extent and the duration of the meeting other factors play an enormous role. Probably the most relevant environmental aspects within meetings are: travel (arrival and departure), lodging, food, energy requirements of the infrastructure (Atmosfair 2013a).

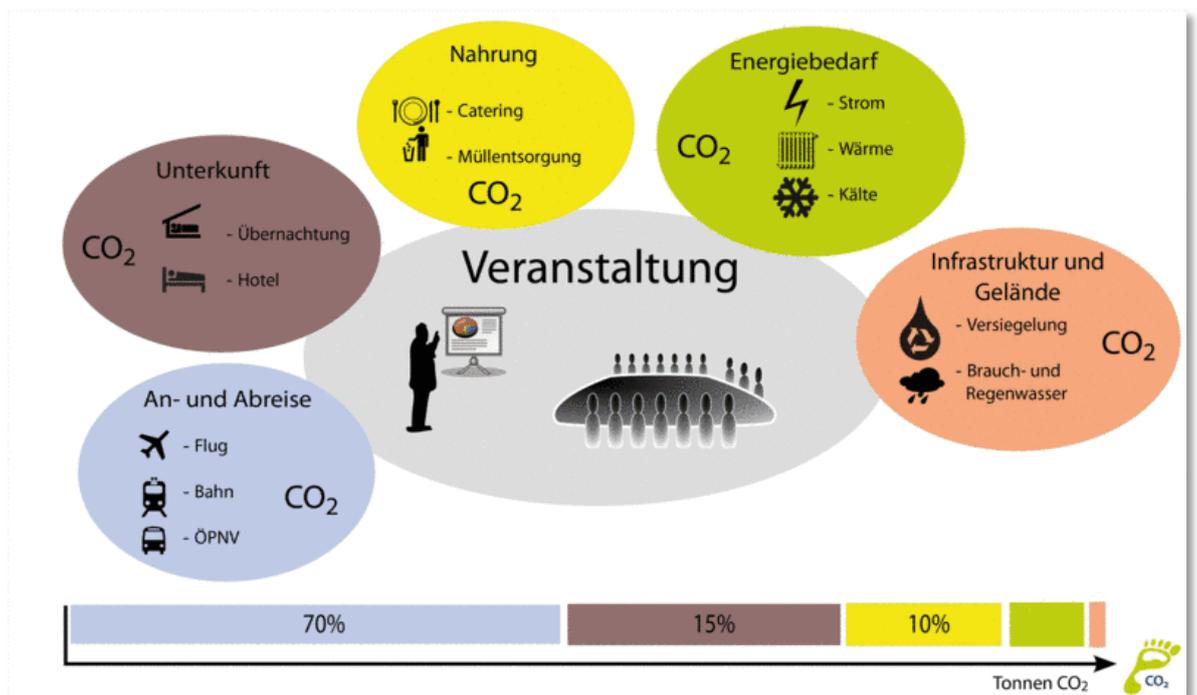


Figure 2: Emission sources of a typical event (Atmosfair 2013b).

The above figure 2 shows the environmental impact on an event in a detailed form. As the figure is in German, the author will explain it. The figure presents the emission sources of a typical event, regardless if it is in an hotel or convention center or elsewhere. It is divided into five groups with aspects which influences these groups.

1. Arrival and Departure

How the customer arrives at the meeting. For example, are they using train, airplane, car or public transportation services. This sector has an effect of around 70% on the environment and thus has the biggest influence.

2. Accommodation

This includes where the guests are staying, is it in a hotel or an overnight stay close to the location. It has influence of approximately 15% on the environment.

3. Food

It is not only the catering which is included here but also the waste management of the meeting. Where the food comes from and, when finished where it goes to. In this group pollution affects the environment by around 10%.

4. Energy Demand

It includes electricity, heat and the cold during a meeting and has an impact of around 3%.

5. Infrastructure and Terrain

This has the lowest impact on the environment with around 2%. It also includes the thermal sealing as well as the used water and the rainwater (Atmosfair 2013a).

### **3.3 Developments and Opportunities for the Implementation of Green Meetings**

This chapter gives firstly some general information about green meetings and how companies can handle this sector. The author took notice of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety in Germany due to attendance at a green meetings and event conference. There was a guideline introduced and discussed which will help the branch to be more sustainable. Especially for hotels this guideline is very useful to plan green meetings with all important aspects behind this topic.

The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (short BMU) and the Federal Environment Agency in Germany have produced a guide for the sustainable organization of events and green meetings.

This guide will provide assistance to the organizers and planners of events (such as conferences, meetings, summits, etc.) to identify necessary requirements with a special view on sustainability (Dubrikow, Jaeckel, Schmidt-Räntsch & Kase 2010, 4).

Furthermore, it is said that sustainability must consider all aspects in terms of ecological, economic and social impacts in the future and should be held at local, national and global levels. The developed concepts in that guide should be a support for organizers and event planners which have a special interest in keeping their meetings environmental friendly and green. Even if they are under time pressure and accelerate they should not forget the essential aspects of sustainability. With these guidelines to sustainability the environmental impact will be significantly reduced and it will also make a significant contribution to the implementation of sustainable development strategies. The ideas and concepts which stand behind the guidelines of sustainable organization of meetings the author will discuss in the following points. In the submission the author will follow the guidelines of "BMU" and the Federal Environmental Agency. In figure 3 the reader gets a first overview which aspects should be brought into consideration in the field of green meetings. Furthermore in one of the following chapters these aspects will be explained in more detail.

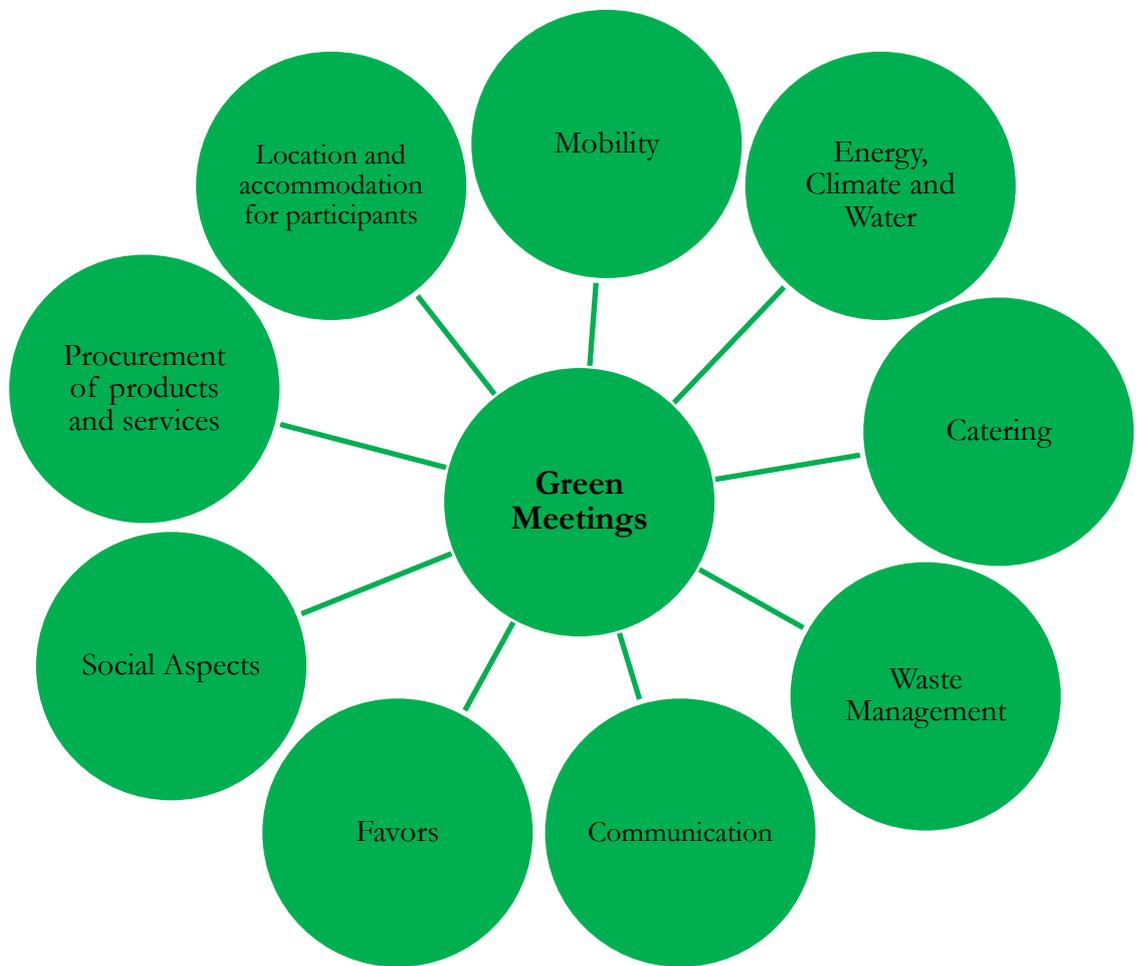


Figure 3: Aspects that should be considered in Green meetings.

### 3.3.1 Mobility

This topic describes all aspects of the arrival and departure of the participants as well as the mobility during meetings between different locations within the venue.

The major causes of environmental pollution are mostly the arrival and departure of the conference participants and also the transportation within the meeting. Of course, if the meeting is within a conference Hotel, the hotel has only limited influence on the transportation. Certainly the hotel can actively advertise and support the environmentally friendly journey by train or by carsharing, but at the end the decision lies by the participants of the meeting or in the company's policy which is holding the meeting. Presently there are plenty of options as to how the participants and companies travel. For example Deutsche Bahn, which is the German railway company, created a so

called “Ökoticket” for corporate travellers. The energy requirement for the purchased business trip will be pre calculated by Deutsche Bahn and for an additional fee of about 1% Deutsche Bahn supplies the amount of energy which is required for the trip in the form of green energy in their electricity grid. Thereby they reduce the CO2 emission (Spiegel 2009). The hospitality industry could use and support this ticket in collaboration with Deutsche Bahn. Especially hotels offering green meetings could inform their clients which are organizing a meeting within their facilities, about this offer for their employees. They could support the hotel in this initiative and gain experience from it and perhaps introduce it into their business.

Cost, time and environmental impact can be saved by the organizers insofar that they check in advance whether a meeting is relevant or not. If not, the organizers should, as we are in the age of technology, make use of virtual meetings. For example video conferences.

In recent years, more importance was set on carbon-neutral mobility. Described here are certain compensatory measures which are related to the environmental impact of traffic measures. This is possible in the form of financial support to developing countries or the purchase of greenhouse gas emission certificates.

In the following paragraph presents an overview about all environmentally friendly mobility measures:

- Virtual meetings as an alternative
- Good public transportation and access to the venues
- Put conference and meeting times such that participants can easily travel with public transportation
- Compensatory measures, for example financing in developing countries or purchase of greenhouse gas emission allowances
- Provide incentives for participants and organizers to take part in the climate protection
- Use of low-emission vehicles, like natural gas vehicles or vehicles that are powered by alternative energy

- Organizing of a shuttle service for transportation within the venue where the meeting takes place (Dubrikow et al. 2010, 7).

### 3.3.2 Energy, Climate and Water

Referring to Sloan in his book “Sustainability in the hospitality industry”, he writes:

Hotels are the largest consumers of energy not only in building construction but also as establishments with complex installations, which provide guests with high levels of multi-faceted comfort and exclusive amenities, treatment and facilities. Many of the services provided to hotel guests are highly resource-intensive whether it concerns energy, water or raw materials (Sloan, Legrand & Chen 2013).

This quote can only be agreed with, as most hotels within the hospitality industry are operating 365 days a year. Of course in each hotel the energy consumption varies as it depends also on size and location of the property and as well how old the building is.

For many lighting applications, LED technology has matured into a very manageable and economical alternative to bulbs and energy saving lamps. LEDs have 20 percent more energy efficiency than even energy saving lamps (Camphausen 2010). Often it happens that the meeting facilities are artificially lit, even though daylight would be quite sufficient. It also occurs that the light in the lobby is switched on during the meeting, although there is no coffee break and nobody in the lobby. A good alternative would be that hotels equip these facilities with time switches or movement detectors. Hoteliers can also use movement detectors in the toilet facilities which only switch on if needed.

Energy and climate play an important role in the context of mobility as well as in the selection of a suitable event location. In handling valuable resources such as water, organizers should pay particular attention as to how they deal with its use and how to reduce the amount of wastewater within the location. In all, the aim of this topic is the minimization of energy and water consumption through the economical use of electricity and water. Measures can be found, in this case, to:

- Consider the energy supply in the selection of the event location

- Pay attention to labels and registrations
- Use of energy-efficient equipment
- Financial investment by organizers and participants in compensation projects for eco-friendly organization of meetings and conferences (Dubrikow et al. 2010, 10).

Consideration of water consumption in the hospitality industry is essential and in some situations should be viewed critically. According to Solan (Sloan et al. 2013) the water consumption per guest per night lies between 170 and 440 liters in an average five-star hotel. Hotels have options to change this. They can collect rainwater as a low cost way of reducing the demand on the local water supply. The collected rainwater can be used for example to flush toilets and water the grounds around the property, as well as in dishwashers and washing machines (IHG 2011a).

To be evaluated critically is that often venues in terms of their structural circumstances, can hardly be changed. This is partly due to the fact that some conference buildings or hotels have been in existence for a long time and therefore no architecturally can be made or allowed to be altered.

### **3.3.3 Catering**

In the field of catering it is necessary, on one hand, to address the issue of procurement of food and, on the other hand the delivery and transportation of the food. Furthermore, it should be ensured that the waste produced during the meeting or services, is properly disposed. The following criteria should be considered by the organizer:

- Preference of seasonal products from organic farming, originating from fair trade. This, for example, can include Juices, coffee and tea
- The products should be transported environmentally friendly
- Selection of catering partners should take place according to certain characteristics, such as Proportion of organic products of the caterer and the dispensing of coffee and tea from fair trade
- Use of piped drinking water in jugs, instead of delivered and packaged bottles

- For the supply of fish and meat always avoid endangered species, particularly fish. It should only be MSC-certified fish (Dubrikow et al. 2010, 12).

### **3.3.4 Waste Management**

The waste management refers to the ways of limiting and reducing the waste produced in the stages of preparation (like delivery of handouts and conference papers), implementation (like catering and conference materials) and follow-up (including recycling). Meeting venues and organizers should not only limit the resulting paper floods, but also the ecological packaging, such as the separation of waste by setting up appropriate separation containers. The waste is to be divided into several categories of residual waste, organic waste without food leftovers, paper, card- and paperboard, packaging, glass and hazardous waste. The non-compostable waste should be recycled (Dubrikow et al. 2010, 13).

The hospitality industry especially the hotels are large consumers of food and beverages. The hotels could donate the food which is left over from meetings or the buffet to local charities like food banks to support them. Unwanted leftovers could also be composted and used to create a rich fertilizer for the plants and the grass around the hotel property (IHG 2011b).

### **3.3.5 Communication**

Once an operator has chosen the implementation of a green meeting, content and objectives should be communicated to the decision-making level as early as possible. Employees should receive special training as to these meetings and an information service should also be available to the public. Participants should be informed in advance about the environmental concept of the event. All in all, the organizer is obliged to clarify the environmental concept to all participants of an event and the appropriate actions (Dubrikow et al. 2010, 14).

Employees should set a good example, such as reducing the use of paper. In the days of e-mails, Skype and videoconferences it should be easy to reduce the use of paper

and to use the electronic equipment instead. So employees can set an example and also encourage the companies and participants of a meeting to present information electronically rather than relying on handouts. This can also help to reduce the energy which is used in paper manufacturing and additionally it saves the environment (IHG 2011c).

Furthermore it is important that training is carried out regularly for the employees of the hotel. This regards the sustainability and environmental protection in every department of the hotel. A possibility is to set up, internally, a written environmental commitment, like a guideline, where all the actions and targets are defined. In this way the employees have the opportunity, if something is not clear, to read through the guidelines again at any time. It could also be an advantage to have an environmental protection officer in the hotel. This person should only be concerned with the environmental matters in the hotel and also could help to implement and improve the field of green meetings.

### **3.3.6 Gifts**

When handing out gifts to participants the hotel should ensure that these favors are made of environmentally friendly material and also delivered environmental friendly. Especially helpful is to choose gifts that do not produce waste. When food is purchased as gifts, organizers should be sure that it is seasonal, organically grown and transported environmentally friendly to the event and that these products are fair trade products. Furthermore, the organizers should pay attention to eco-labels for products (Dubrikow et al. 2010, 14).

Hotels can also self-manage the topic of gifts for participants of a meeting or hotel guests by, for example, offering homemade cookies or seasonal fruit give a ways. It is a nice gesture and the guests will remember it.

### **3.3.7 Social Aspects**

This field concerns the organization of events for disabled people and gender mainstreaming. This means that not only the needs of disabled people receive attention, but also their independent and active participation in events. Furthermore, particular attention is paid to the aspect of gender mainstreaming. Which means the gender equality between men and women. Social aspects can be integrated as follows:

- Barrier-free access for wheelchair users to the respective events
- Toilet facilities should be designed for the disabled
- Gender-sensitive written and spoken formulations throughout the whole event
- For people with other handicaps (eg, visual and hearing disabilities) it is necessary to implement measures to enable their participation in the meeting (Dubrikow et al. 2010, 15).

Even if this may not fit in the topic of green meeting and green technology it is an important theme that is worth noting.

### **3.3.8 Product and Service Procurement**

Through the increasing demand for environmentally friendly products and services the positioning of the hotel on the market will be strengthened. Accordingly, the application and use of environmentally friendly innovations are supportive for everyone who is interested and has a knowledge of the industry.

The following measures are used for environmentally friendly products and services procurement: like to avoid excessive use of paper, for example by minimizing the number of handouts, print on both sides of the paper which is used gathering the distributed brochures and information materials. 100% recycled paper should be used in the preparation and implementation of an event and use of environmental criteria which are characterized by eco notes (like eco label "Blue Angel" or the European Eco-label) (Dubrikow et al. 2010, 11).

### 3.3.9 Location and Accommodation for Participants

When choosing the event location and the accommodation for participants special attention should be paid to selecting the right place where participants can stay. The accessibility of the venue, to the town center by walking for example or public transport, is central in minimizing the local transport needs. (UNEP 2009, 24). Furthermore, it is important that the overall running of the event is designed environmentally friendly and adapted to the specific situation of the event location (such the cultural, regional or economic situation). A major support in finding the right location or conference hotel can be special environmental labels, like EMAS (Figure 3) or ISO 14001 (Figure 4).



Figure 4: EMAS (EMAS 2013a)



Figure 5: ISO 14001 (ThinkFirstFresh 2012a)

The EMAS and ISO 14001 certification as well as the Nordic Ecolabel will be explained in more detail in chapter 5.

### 3.4 Motives and Benefits of Green Meetings in the Hotel Industry

Due to the research in the afore going chapters, it can be concluded that the hotel industry can use this knowledge and implement it in the field of green meetings. This section of the chapter will provide the reader with motives and benefits of green meetings in the hospitality industry.

Probably each hotel has a different view why they want to become greener and offer green meetings within their event and meeting facilities. Perhaps some hotels want to save money and costs or they want to protect the environment and reduce the carbon

foot print of the property. Maybe they are just following the trend, which would not really be good as they are not really interested in the topic of being greener. Hotels that want to take responsibility and wish to be more sustainable, have to take the topic more seriously.

Guests and participants of meetings are more demanding and more informed nowadays, so hotels which offer green meetings have a good opportunity to win new guests and companies. Accordingly, hotels with this visible demonstration of their green meetings can help to raise awareness amongst the participants of meetings. This visible demonstration can also help hotels with their marketing and public relations, because it is a commitment of the hotel's sustainable practices. Additionally it can help to improve the image of the hotel. Furthermore by minimizing the use of resources and reducing the waste through energy efficiency, hotels can save money at each single event (Moon 2012). Because of the sustainability and the offer of greener meetings and events, hotels can have access to new target groups and have the opportunity to expand their market share by positioning their hotel as environmentally protective. It can be a competitive advantage compared to other hotels and it can also support their relationship to their guests.

Hotels which consider the environmentally friendly aspects of construction, technology, equipment and service can secure a competitive advantage. It is also advantageous to have meeting locations that are easily accessible by public transport, since the volume of traffic will increase even further in the future. The participants of a meeting expect high quality furnishings in the function rooms, modern audio-visual equipment with internet access and natural light. Hotels have the advantage, as far as meetings are concerned, that they can organize everything under one roof: accommodation, the meeting, food and leisure (Kwidzinski 2013).

According to Sloan (Sloan et al. 2013) the advantages for hotels, also in the field of green meetings, can be divided in the following three groups.

**Environmental advantage:** Lower company environmental footprint, avoiding short and long term environmental damage, saving the environment within the hotel and

the area around the property, improving the internal environmental performance of the hotel (Sloan et al. 2013, 6).

**Economic advantage:** saving costs by reducing the resource consumption, business benefits such as improved relationships with stakeholders, improved employee morale and motivation, competitive advantage in comparison with other hotels, increased market share (Sloan et al. 2013, 6).

**Social advantage:** Support the local economy, using seasonal and regional products from regional providers around the surrounds of the hotel, motivation and employee loyalty (Sloan et al. 2013, 7).

Due to the above mentioned motives and benefits of green meetings in the hotel industry, such hotels have a huge advantage compared to normal conference centers. Everything is gathered under one roof and it is easier for the participants and for the hotel to organize everything. Even if presently there are only a few hotels offering green meetings, in the future there will be more and more hotels on the market which are offering this within their facility.

## 4 Green Technology

This chapter is actually the second part of the theoretical framework of this thesis and deals with green technology. The chapter is mostly a subchapter and will provide the reader with a short overlook about the topic. Green technology is also a part of green meetings not just in the hospitality industry but also in every other industry. The word green technology is probably in comparison to green meetings relatively new term and has been adopted just over the past decades (Green technology definition 2013).

The author will provide the reader with a definition of green technology, different kinds of technology, followed by how the hotels can utilize the technology to cut costs within the property.

### 4.1 Definition

The term green technology means technology that is environmental friendly, developed and used in a way that it does not harm or distract the environment and furthermore protects natural resources. Terms which the same meaning and which are related to green technology are also environmental technology as well as clean technology.

The main purpose of green technology is to reduce the global warming and to minimize the greenhouse effect. (Green technology definition 2013). Due to the help of green technology it will improve the cleanliness and reduce the pollution too. Within the meeting facilities of a hotel its purpose is also to reduce the energy consumption and to minimize the waste management (Fischer, M. 18.03.2013a).

Especially in the hospitality industry it is important to work with green technologies. The hoteliers can make huge amounts of savings and improvements within their property. Of course they have to stay ahead of the game and always be informed what new trends and technologies are coming up (Parkin 2010).

## 4.2 Types of Green Technology

As there are lots of different technologies which are called green or renewable technologies in the author decided to provide the reader with the most interesting and common ones. So the author will concentrate in this chapter on solar energy, hydropower and wind energy. Furthermore this chapter is a bit more general held about what the hotel can and not just about the meeting facilities within the hotel. The author thought it is better to explain this more in general as nearly everything can be implemented within the meetings facilities.

### 4.2.1 Solar Energy

The field of solar energy can be divided in several different types: passive solar energy, active solar energy and photovoltaic solar energy.

1. **Passive solar energy:** Means to use the orientation of the building. It refers to the use of sun energy without using any mechanical devices. For hotel meetings facilities it means to use the windows to provide light and at the same time also heat for the room (Solar energy 2012). It will help to save money and also provides the meetings facilities and the hotel with a naturally comfort.
2. **Active solar energy:** It uses the heat of the sun to warm up for example the water. It uses solar collectors to capture the solar energy and transform it into heat. The active solar energy uses mechanical systems to capture the energy from the sun. Due to that it reduces the electricity demand of the property or the building (Solar energy 2012).
3. **Photovoltaic solar energy:** Produces energy. It is the energy which is created by converting solar energy into electricity. This happens by using photovoltaic solar cells (Solar energy 2012). Photovoltaic solar energy is a entirely renewable technology. But there is one disadvantage of this technology. The photovoltaic cells cannot produce energy during night time or clouds but even if the supply

is interrupted the long term supply is still 100 percent sustainable (Grahame 2013).

The benefits and a positive aspect about the solar technologies is that it is a renewable resource, because it does not produce any greenhouse gases and does not release any harmful contaminants into the atmosphere (Crawford 2013).

A good example for a hotel which uses solar energy technology is the Crowne Plaze in Alice Springs in Australia. In 2009 the system was implemented and the hotel has installed over 1300 photovoltaic module's which are part of the 304.98 kW photovoltaic systems. Per year the system will reduce the hotels CO2 emission by around 420 tones. The technology will also supply up to 80 percent of the instantaneous power demand during the day (Crowne Plaza 2013). Therefore it can be said that solar technology is useful not just for the meeting facilities but for the whole hotel to create clean and green power.

#### **4.2.2 Hydropower**

Hydorpower is one of the most reliable sources of renewable energy and technology. For hotels which are located near a river or the ocean this could be a huge advantage. This technology system converts the energy from flowing water into electricity. For a hotel this could mean that the electricity could be used to offset the costs of buying electricity power. Furthermore the energy which is not in use can be sold back and it could create another income for the hotel (Hotel energy solutions 2013a, 1).

Within this technology there are also several advantages and disadvantages. The advantages on one hand are that is has a positive environmental effect like flood control, it is a proven and reliable technology and it reduces the land requirements. The disadvantages on the other hand are that this technology may disrupt the natural flow of rivers which could lead to damage to the ecosystem, also it has high initial costs and there is always the possibility of flooding (Hotel energy solutions 2013b).

The Bio-Seehotel Zeulenroda in Germany is a good example for a hotel which is using hydropower. They purchase the electricity for the whole property from hydropower. As the hotel is located near a dam it was only natural to gain electricity from hydropower. Nevertheless this is just one aspect why the hotel is sustainable and environmental friendly property (Fischer, M. 18.03.2013a).

### **4.2.3 Wind Energy**

This is created through changes in the atmospheric pressure near the Earth's surface. The wind turbines are using the wind's kinetic energy. In these days wind parks can be place everywhere like on coastal areas, offshore or on mountain. A modern facility produces during its average lifetime of around 20 years about 40 to 70 times as much energy as it is used for their production, usage and disposal. Furthermore these modern power stations are almost completely recyclable (Schad 2013, 30). Of course there are also advantage and disadvantages for this technology. Advantages for this renewable energy are: it has a low expense, it is quick to install and produces little environmental pollution. On the other side there are also a couple of disadvantages like: that it is quiet noisy, the electromagnetic interference can distort TV and radio reception locally and the visual impact is not really nice to see (Hotel Energy Solutions 2013c).

A good example for wind energy as a renewable technology for hotels is the InterContinental New York Barclay Hotel. In this hotel the electricity is 100% garnered from renewable wind power. A leading renewable energy provider supplies the hotel with wind energy; this wind energy comes from nationwide wind sources. Furthermore this hotel was one of the first in New York to source 100% wind energy (Sterling Planet 2010).

All of these different types of renewable technology can be implemented in the whole property of a hotel as well as in the meetings facilities. In the authors opinion the previously explained energies would be the first steps for the hospitality industry to be more sustainable and this has been transferred to the meeting facilities. Nevertheless there are also green technologies that can be implemented directly in the meeting facilities they will be explained deeper in the next chapter.

### 4.3 Utilize Technology

Really important is that the technology which is available in hotels and meeting facilities has to be used to cut costs. Probably the waste of paper is the biggest aspect before, during and after a meeting or event. It already starts with the first contact of the hotel and the potential new customers or company who want to perform an event or meeting at their hotel. Due to computers and the internet it is getting easier to get in contact with a company or the participants of a meeting. For example a participant gets an invitation for a company's meeting via e-mail. With this invitation they can sign up for this particular meeting through the internet. It is easier and everything is in control for both sides the hotel and the participant of the meeting. Furthermore meeting details and information's can be send via e-mail as well. This can all be done before a meeting starts, this helps to decrease the use of paper in the property (Cvent 2013).

During the meeting it is as important as before the meeting to implement technologies. The hotel should encourage the participants to present information's electronically rather than in handouts. For example the Bio-Seehotel Zeulenroda in Germany bought in 2012 a whiteboard for their meeting facilities. It is an interactive board and this technology helps to reduce the waste of paper and also materials like pencils. So participants of meetings can write on this board and at the same time it appears in the computer which is connected to the board, also they can present their presentation on the board so again the handout paper won't be needed. Furthermore, the hotel has inside the meeting facilities and also in the whole property no air conditioning system but a climate-venting system, which regulates the air in the room. This means that during the winter time the meeting rooms are warmed by recirculating air and in the summer time it will be cooled down by a conduction system. Additionally to that they use office supplies and printed materials from sustainably produced commodities and the hotel only prints green by the use of climate neutral printing devices (Fischer, M. 18.03.2013a).

When the meeting or event is finished there can be send a personalized follow-up email to the attendees. This will save money and the environment and at the same time

the hotel can ask via an online survey for a feedback of how the meeting and the hotel was experienced (Cvent 2013).

These mentioned aspects within the meeting facilities are all helping the hotel to save money and defiantly cut costs. This is not all furthermore it helps the hotel to stay sustainable and environmental friendly. Due to new technologies the hotel stays up to date and additionally collects more and more experience in this field. In addition to that it helps also to stay in a better contact with companies and participants of meetings for future events.

At the end of this chapter it is to say that green meetings are not working without green technology. In these days hotels have to spend money to implement green technology everywhere in the hotels facilities. It will ensure to win new customers and they prove that they are interested to stay environmental friendly. Furthermore new technologies are helping as well to save money and energy of the hotel which is a huge advantage. Green technology is important in today's business and new technologies are helping stay competitive against their competition on the market.

## **5 Certification Opportunities for Green Meetings and Green Technology**

This chapter will provide information about certification opportunities for green meetings and green technology for hotels presently.

Existing certificates cover a wide range of business needs and the different levels of sustainability. The associations who created these certificates try to promote the latest techniques and practices to guarantee that hotels will be a step ahead of governmental rules and regulations. Of course, hotels could possibly do without these certificates, but it is still beneficial if hotels join and it is probably more efficient and easier to win new target groups.

Even if certification relates to the entire hotel operations and not specifically to the meeting department, they can also help to improve and communicate green meetings and green technology within the hotel facilities.

Since there are numerous certifications in circulation the author chose three certifications which are the most useful and important ones: EMAS, ISO 14001 and Nordic Ecolabel. EMAS is created for the European market and ISO 14001 is an international certification system.

Since this thesis topic concentrates mostly on the part of green meetings and green technology the certification opportunities will be explained only briefly in the following chapters of this thesis. Furthermore the certifications will be introduced and explained only generally as the certifications systems apply mostly to all sectors.

### **5.1 EMAS**

EMAS is the short form for Eco-Management and Audit Scheme. It was developed by the European Communities in 1993 and is a tool for companies which want to evaluate, report and improve their environmental performance (EMAS. 2013b). Furthermore it is a community system for environmental management and it is also used to

inform the public that they know where companies and organizations may participate voluntarily (GCB 2013, 2). EMAS is performance-based: The company is expected to improve on the environmental legal requirements (EMAS. 2013b). The outcome for companies and hotels are a better management of environmental issues and credible information on them.

The following figure 6 briefly presents how companies can register for EMAS.

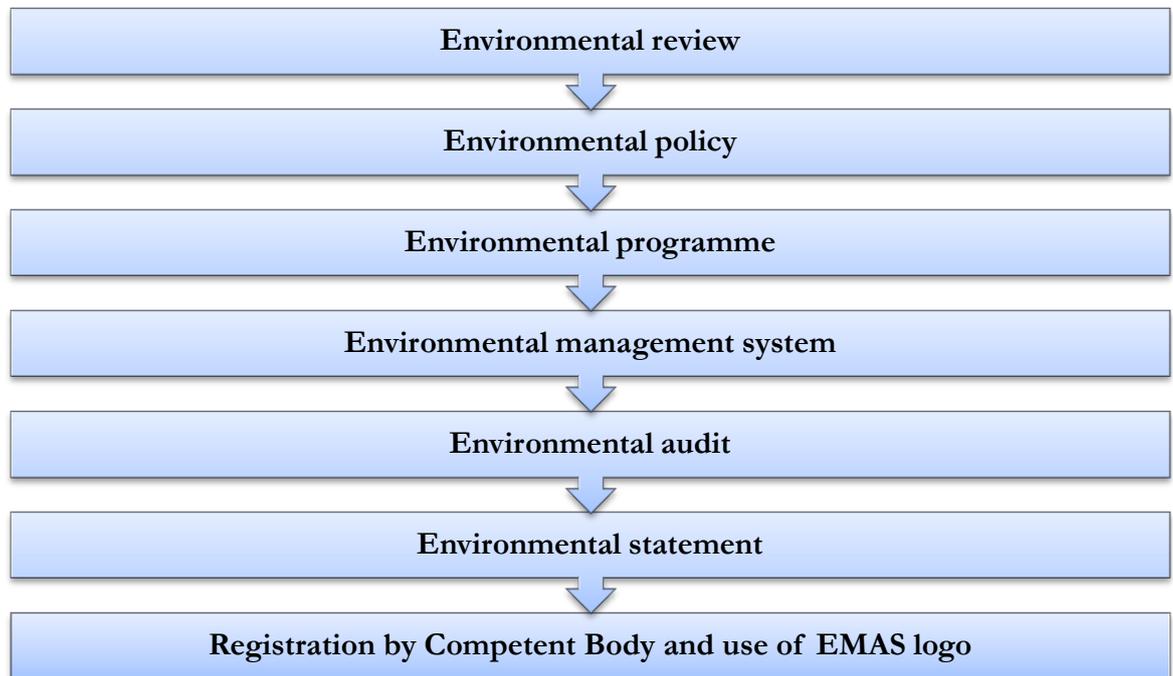


Figure 6: Steps to the registration for EMAS

The advantages for EMAS certified businesses are:

The entire business is assessed, not only individual facilities. It will help to reduce costs, due to the optimised management of resources (e.g. energy and resources efficiency). Furthermore the involvement of the employees within the organization and operation creates a general awareness as to the benefits of environmental protection.

Organizations and businesses interact with one of the state approved environmental experts to present a critically verified environmental statement to the public. They inform about their environmental policy, environmental activities and environmental aims and opportunities for improvement. EMAS organizations aim to improve the environmental impacts of products, activities and services. They make an important contribution to the sustainable improvement of the environment and a better quality of

life. An EMAS registration can also lead to improved market access and increased market share (EMAS. 2013c).

Even if the EMAS certification is quite heavy for hotels it is a really good certification. The Bio-Seehotel Zeulenroda is also EMAS certified and during the interview with Mr. Fischer came up that they are really proud of it. Further he said the author should put it in the thesis as it is a European standart certificate and important for the buissnes (Fischer, M. 18.03.2013a).

## **5.2 ISO 14001**

ISO 14001 was established in 1996 by the International Standards Organization (ISO) and has been updated in 2000 (Lexikon der Nachhaltigkeit 2012). The international environmental management standard ISO 14001 specifies globally accepted firm requirements for an environmental management system. ISO 14001 puts a focus on a continuous improvement process to achieve the goals, which are defined differently for each company, regarding the environmental performance of the organization (GCB 2013, 4).

It specifies appropriate requirements that are applicable to organizations of all types and sizes or different geographical, cultural and social conditions (Tuev Sued 2006). It is addressed to all companies that want to make a difference and want to improve the operational environmental activities in the daily working activities. The standard requires companies and organizations to identify environmental impacts and aspects and to implement measures which improve processes in the different departments of a company (DNV 2013).

The following figure 7 will show how companies can register and which steps they have to follow for ISO 14001.



Figure 7: Steps to the registration for ISO 14001

Advantages and benefits of being certified with ISO 14001 are:

- Reduce emissions, waste and wastewater
- Saving money through targeted use of resources
- Reduce environmental risks of liability.
- Secure the fulfillment of requirements of customers and authorities.
- Encourage environmentally responsible behavior of employees
- Improve the companies image with customers, partners and the public.
- Reach self-imposed environmental targets (Tüv Rheinland 2013).

The ISO 14001 covers every type of organization, from businesses to charitable organizations. It ensures an efficient environmental management and it is not only helping to reduce environmental impact, but greatly improves the organization's extended viability and it is identifications (ThinkFirstFresh 2012).

### 5.3 Nordic Ecolable

This certification comes from the Scandinavian countries and was invented in 1989 by the Nordic Council of Ministers. It is a working guide for the Nordic countries which

helps to save the environment. The purpose of the label is, to provide an environmental classification scheme that contributes to a sustainable consumption (Nordic Ecolabel 2013). The sectors which can be awarded for the Nordic Ecolabel are hotels and youth hostels, restaurants, conference facilities and geographical restriction, so mainly every department in the hospitality industry (Nordic Ecolabelling 2013, 2). For the business this label is cost effective and a easy way of communicating environmental work and obligation to customers and suppliers. Furthermore it reduces the environmental impact by cutting the energy consumption and reducing the amount of waste just as examples.

The following figure 8 will show how different industry sectors can apply for the Nordic Ecolabel and which steps they have to follow.

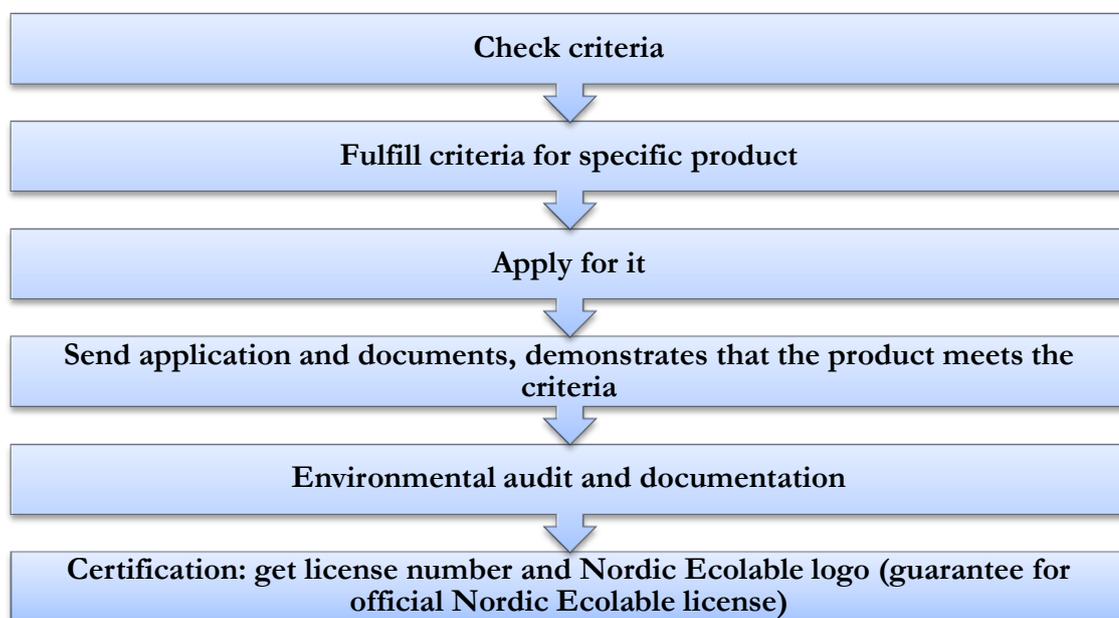


Figure 8: Steps to apply for Nordic Ecolable

The way of applying to this certification is easier than the mentioned before EMAS and ISO 14001. The best way of applying is electronically by using the electronic application guide where everything is mentioned what must be put in consideration and what has to be fulfilled. By accessing the electronic applications guide the business receives a password which is valid for a limited period during the process. But once the license is achieved the period is extended to apply as long as the criteria are valid (Nordic Ecolabelling 2013, 3).

The requirements for the Nordic Ecolabelling are made really clear and are also divided in several subgroups like: Suppliers, limit values, energy, chemicals, water, waste, purchasing, accessibility, serving food and drink, transport and procedures. Applicants have a well-defined structure what to follow and how to implement it (Nordic Ecolabelling 2013, 1).

Even though this certificate is mostly for the Nordic / Scandinavian regions the author chose the Nordic Ecolabel as it is a really good example of how to be more environmental friendly and sustainable. This label makes it clear and easy for hotels to integrate it in their daily work life and it is also a long-term goal for them. Furthermore it makes suggestions of how to improve their business.

As the reader probably can see, all certifications have nearly the same goal to implement an efficient environmental protection system within a company. All of them are created to be more environmental friendly and sustainable. As regards to customer accessibility, it is easier for ISO 14001 to reach companies who are interested since it is a global certification, and not just accessible in Europe such as EMAS.

In the authors opinion probably the best of the three certifications which were presented and explained is the Nordic Ecolabel, because it is excellent to implement in the daily business of the hospitality industry and the best to understand. Even if it might be not recognized at the moment by hotelleries which are not located around the Nordic region, this certification should be put in consideration for the business to create a environmental friendly and sustainable atmosphere. Nevertheless each company has to decide for itself as to which certification is the best for it's business.

## 6 Methodology

This chapter presents the empirical part of the thesis. It will deliver all information about the research which was done for this paper. It will also explain the methods which were chosen for this paper and the way the data was collected, handled and analyzed. Primary and secondary data were used to receive information about the thesis topic green meetings and green technology in the hospitality industry. The theoretical framework which was presented in the above mentioned chapters is based on different research methods started by literature which included professional books and magazine articles as well as internet pages which all will be explained in the following chapters.

### 6.1 Chosen Methods and Material

The author chose different methods and material for this thesis. Primary and secondary data were collected to ensure that every aspect is covered within this thesis.

The primary collected data are information which helped investigating the topic. According to Churchill and Brown (2004, 42), researchers have two different options for obtaining primary data:

1. by communication, like in interviews
2. by observation like participating in events which helped to understand the topic  
(Churchill & Brown 2004, 42)

For this research the author used both primary research methods to collect the relevant data. By interviewing experts of the field of green meetings and green technology the author was able to receive a good overview about the topic. Furthermore the author took part in a green meeting conference to observe which steps companies or participants of meetings have to go to create a green meeting or to take part in one. This primary research helped with the secondary research as well and the author was able to receive information which fitted directly in to the research purpose. Both of these methods will be explained in chapter 6.

As this bachelors thesis is not written together with any hotel or organization all of the secondary research falls into the category of external data. General sources are professional book, newspapers, academic journals, internet search and online platforms. These researches were done at home and also most of the time in the library of the University of Applied Sciences in Erfurt, Germany.

Due to the primary and secondary collected data the theoretical framework describes and informs the reader about green meetings and green technologies in the hospitality industry.

For this research the qualitative methods which rely on words and images for data analysis (Veal 2006, 125) were the best opportunity. Due to the participation of the green meetings and event conference in Darmstadt, Germany the author had a good basis and overview of the topic. As interviews were held with experts in this field and also the participation in the above mentioned conference it was getting easier to work on the theoretical framework of this thesis. Furthermore an internship in the industry also served as a good fundament for the topic of green meetings and green technology.

The interview, information's about the conference and the internship will be given in chapter 7, findings and data analysis. The gained information during the research will help answering the researched questions.

## **6.2 Selection and Justification of Method**

The purpose of this thesis is green meetings and green technologies in the hospitality industry. All steps of the theoretical framework are of importance and together with the literature research which were used it creates a research topic that hotels could use to integrated green meetings in their hotel business.

The author decided not to create a questionair for collecting data as it would be hard to find and reach the right target group. Mostly, if green meetings are held big companies are standing behind it and it was hard to receive any information about it. The author could not even get a questioner trough to them. Furthermore as hotels cannot pass on

any data of the companies they are working together with the author had to forget about the questionnaires and did just primary and secondary research with interviews, participation in a green meeting and the knowledge which was received during an internship.

Due to lots of research also in the internet the author came across the green meeting and event conference in Darmstadt. This was a possibility to receive valuable knowledge in the field of green meetings. This conference helped a lot, especially with difficulties in the theoretical framework of this thesis.

### **6.3 Description of the Research Procedures and Research Analysis**

The author chose different procedures. For the interview the questions were given in advanced to the interviewed person. To make sure that he knows what the interview is about and to give him time to go through the questions. By the time of the interview parts of the theoretical framework of green meetings and green technologies were already done. This was useful that the researcher already had some knowledge about the topic and also had more specified questions for the interviewed. To get in contact with the hotel and the right person who was the expert in this field was no problem at all. It was easy and fast to find a date for the interview.

As mentioned before the research analysis of this topic will be provided and discussed in more depth in chapter 7. The best and most valuable way to do the research analysis and to get to results came from the interviews and the knowledge the author received during the participation of a green meeting and internship. The author will discuss this in the following chapter. The analysis could not have been made properly if interviews and the observation of the meeting had not been made.

### **6.4 Validity and Reliability**

This part of the chapter will concentrate on the validity and reliability. According to Bryman and Bell (2007, 41) “Validity is concerned with the integrity of the conclusions that are generated from a piece of research”. To ensure that this thesis is valid the au-

thor checked literature, magazines and also internet websites. The data was collected from interviews and observations of a green meeting. All interview partners were experts in the field and so all of the asked questions during the interview should be valid for this thesis. Of course it always depends on the interviewed what he/she reveals and what not. There has to be some kind of trust between interviewed and the interviewer.

As stated by Bryman and Bell (2007, 40): “Reliability is concerned with the question of whether results of a study are repeatable”. In this case it is hard to say, as green meetings and green technology in the hospitality industry is still at the beginning. The results for the next research will be even more positive. Furthermore the author thinks that in studies or investigations never the same results will occur, they might be similar, but never the same.

In this particular research it has already positive results, but there will be even better in the future. Probably more companies and participants of meetings want to think about the environment when participating or organizing a meeting. For sure in the future will be even more eco-friendly inventions made, which will help hotels to be more environmental friendly and green within their business. There will be defiantly changes in the result of green meetings.

## 7 Finding and Data Analyzing

The theoretical framework and empirical part has been analyzed and this chapter will provide the reader with the information about the findings and data analyzing. It will provide the reader with facts about the interview with an expert in the field of green meeting and technology. It continues it with the green meetings and event conference the author participated in and the internship in which the author also received valuable knowledge which was used for this thesis.

The results of the research, interviews and observation will be provided in the last part. Furthermore the last part of this chapter will show if there is a customer demand within the field of green meetings and green technologies in the hospitality industry.

### 7.1 Interview

The interview was held with the sales director of the Bio-Seehotel Zeulenroda, Germany, Mr. Manfred Fischer. During the interview several questions were asked, which the reader can find in attachment 1 of this Thesis. The interview was a good opportunity for the author to get the thesis in the right order. As already some research was done the author could ask specific questions which helped with difficulties in the thesis.

The hotel was opened in 2001 and already during the construction special attention was on natural wood flooring, large windows, a breathable wall construction for healthy indoor climate and on harmonic color, lighting and art concepts. Even at that time it was ensured that the redevelopment measures corresponded to the latest technology in terms of energy-saving, heat-insulation and double glazing.

Here are just some general facts about the hotel, to have an overview about the hotel:

- 158 rooms
- 12 different meeting rooms
- Panorama Restaurant with breathtaking views
- Beauty & Wellness Lounge

- Sauna and Fitness area
- Fireplace with a "Glass Kitchen" lobby bar, beer garden by the lake (Fischer, M. 18.03.2013a)

In 2005 it is one of the best meeting and conference hotels in Germany in the category of congress hotels. Furthermore in 2006, the hotel changed to complete biological products in each department.

The environmental strategies of the hotel are:

- 100% food and 90% beverages are certified organic quality
- Certified water saving measures throughout the whole building
- Purchase of electricity from hydropower
- Use of biodegradable cleaning agents and detergents
- Waste separation, composting and further use
- Hotel has nine elektrosmog reduced room
- Use of office supplies and printed materials from sustainably produced commodities
- Print Green - use climate neutral printing devices
- All construction work will be carried out from an ecological point
- Food and other products purchases from suppliers around the region to avoid long transport routes
- Avoidance of CO2 emissions (Fischer, M. 19.03.2013b)

The environmental efforts of the hotels are also reflected in the offers within the meeting area. Therefore all meeting arrangements are carbon neutral by compensation payments. The emission damage caused by an event are calculated and offset by compensation payments into different projects where the hotel is involved. After the interview and a tour around the property it is to say that the Bio-Seehotel is a really good example how hotels can be more sustainable and environmental friendly within the meeting facilities.

## 7.2 Green Meeting and Event Conference

The author did not just do research on the topic of green meetings, but also took part in one green meeting to receive a better overview and more information about the topic. This chapter will provide the reader with facts about how the author felt during the meeting and if there were any differences to other meetings.

Firstly there will be given information where the conference took part and about the meeting facilities. Followed by an overview of the meeting and people how took part in the meeting. The third part will be a short conclusion about that special green meeting and the feeling the author had during the conference.

The meeting took part in the “Darmstadtium” in Darmstadt, Germany. The property was opened in 2007 in the town center of Darmstadt, Germany. Here are just some small facts about the location, to help the reader imagine the property in a better way:

- it has a total area of 18,000 m<sup>2</sup> (disabled facilities)
- biggest room the Convention hall with 1,300 m<sup>2</sup>, with up to 1,677 seats in rows can be divisible into two or three separate rooms
- it has 21 flexibly combinable conference rooms for up to 1,300 people
- variable room sizes and all rooms with daylight
- a foyer area with 1.800 m<sup>2</sup> which are mostly used for exhibitions (Green meetings und events 2013b)

The owners and architects created a center which uses geothermal energy, solar energy and biomass to achieve an overall balance of the building to complete supply with renewable energies. Especially in the area of green meetings it is a showcase for sustainability, the conservation of resources and intelligent use of energy. As a result it is an overall climate-friendly event-location. They also made special contracts with Deutsche Bahn to allow participants of meetings a CO<sub>2</sub>-neutral arrival. Furthermore the building is “Green Globe” certified. Due to all these effects the Darmstadtium has an extremely small carbon footprint and is one of the environmental friendliest and sustainable meeting and conference centers in Germany (Darmstadtium 2013).

The green meetings and events conference is an international conference for sustainable event management. This meeting takes place every two years in another city in Germany. The first time it took place 2011. In 2013 it was the second time that this meeting took place. The meeting location was this time in Darmstadt, Germany from the 26.02.2013 to the 27.02.2013. Professionals and experts from different industry sectors came together and showed the audience what has changed after the last meeting. The patron of this meeting was the Federal Environment Minister of Germany Peter Altmeier (Green meetings und events 2013a). The organizers have made thoughts on the fields of action and activities before there can be such a meeting. Like in which fields they can be more environmental friendly and also rules that participants should follow. They invented fifteen areas in advance, before the meeting started to support the environment:

1. **Mobility:** Arrival and departure via Deutsche Bahn and completely CO<sub>2</sub>-free, caused by the arrival emission CO<sub>2</sub> is compensated
2. **Subscriber Management:** Invitation procedure completely electronically, renunciation of feedback signals via fax, all relevant information's and services can be found on the homepage and only made available electronically
3. **Advertising:** Disclaimer on speakers Gifts, sustainable conference bags made of felt
4. **Catering:** Using regional and seasonal food, use of fresh produce - disclaimer of convenience products, waiver of exotic food from overseas
5. **Decoration:** Using reusable decorative elements, use of natural materials and durable decorative materials
6. **Equipment:** Exhibitors are made aware with a guideline on sustainable event, like to do car sharing for the journey to the location
7. **Social Services:** The organizers support a local school project for children's rights with 500,00 Euro
8. **Hotel Selection:** Good public transportation to the hotels
9. **Location:** Darmstadtdium compensates all CO<sub>2</sub> emissions from the stationary events in 2013, event location is certified by Green Globe seal, rental of electric bicycles possible

10. **Water, Waste:** Recycling, waste collection not regularly only when needed, rainwater collection and extraction of the air through the roof, economical vacuum toilet system, rain water treatment plant needs to reduce consumption of water
11. **Energy:** Use of renewable energy, use of modern energy-saving lamps, use of 100% green electricity from hydropower
12. **Print:** Print of the conference brochures on paper “Blauer Engel”
13. **Communication:** Exhibitors will be informed in advance of the issue of sustainability in the form of a guideline
14. **Event Management:** GCB and EVVC are Green Globe certified, necessary documents printed on both sides and in black / white, use of recycled paper and energy-efficient office equipment
15. **Compensation:** Organizers take responsibility for the environment and organize the green meetings and events conference carbon neutral (Wegweiser 2013, 10-14).

Due to this areas mentioned above the conference was sustainable and the participants could learn from them how to deal with green meetings and sustainability as well. Lots of different people supported the conference from diverse industrial sectors who have something to do with this topic likewise from the field of architecture, tourism, music, sport and of course the hospitality industry just to mention a couple (Green meetings und events 2013c). Several professional forums were held during the meeting and due to this it gave companies, students or interested the opportunity to get to know the matter of green meetings and sustainability better.

For the author of the thesis this was a really good way to observe how green meetings are working and operate. It is not just important to do research about it, but also to take part in one to get an even deeper look in the field of green meetings and to see how it works in real life. The information and facts the author received during the meetings were a good help for the thesis. It was interesting to see how much input the creators of this event had to do to receive a really good outcome and a low carbon footprint. During the meeting one could see what effect this important topic had on the people who participated. As mentioned they came from different industries and all

of them had in some points different views, but at the end they all had the same interests in being more environmental friendly and sustainable.

### 7.3 Internship

The following chapter will give some information about the internship the author completed. There will be given general information about the hotelchain Starwood and then about the hotel Fuerstenhof, which is where the author worked for. Furthermore there will be shown what Starwood and the hotel, are doing to be more sustainable and environmental friendly. It was important to see how some environmental features were implemented in the daily working life and how a huge hotel chain deals with the important topic.

Starwood Hotels and Resorts Worldwide, Inc. is an American company and a hospitality ownership and management organization. Starwood is one of the world's largest hotel companies and it owns, operates, franchises and manages hotels. The Starwood Company owns nine brands, which are: St. Regis, W Hotel, Sheraton, Element, Westin, Four Points, Aloft, LeMeridien and the Luxury Collection. The total properties of Starwood are 1.089, with approximately 322.300 rooms (Starwood 2012).

Frits van Paasschen, Chief Executive Officer of Starwood since 2007 said that:

At Starwood, doing the right thing for the environment and for our communities is more important than ever. Our customers and owners are asking for it. Our guests expect it. And our associates are passionate about it. That's why global citizenship will play a key role in all of our activities. We aspire to be as respected for these efforts as we are today for our innovation and our brands (Starwoodmeetings 2013a).

The company has an environmental sustainability policy, where they point out where their responsibilities are laying. It explains to the hotel owners, franchisees, suppliers and business partners what Starwood is expecting and where the practices aimed lies, to: conserving natural resources, minimizing waste and pollution, enhancing indoor environmental quality, establishing and reporting on key envi-

ronmental performance indicators and raising environmental awareness among our associates, guests and communities.

They want to achieve these goals together with their employees. The effort they put in will help to be more sustainable (Starwood 2012).

Within the meeting facilities Starwood tries to meet the needs and wants of their guests and customers in a way to reduce the environmental impact. The company already implemented the program successfully in North America and it is implemented expanding on the other continents where Starwood has hotels. The program for meetings is split into five sections:

1. Paperless Meeting Planning
2. Sustainable Meeting Services
3. Sustainable Food & Beverage Practices
4. Impact Assessment Tools
5. Socially Conscious Activities (Starwoodmeetings 2013).

Within in these five sections Starwood covers important parts to think global and more environmental friendly in every department of their hotels.

The Fuerstenhof belongs to the Luxury Collection. The Luxury Collection has a wide selection of hotels and resorts which offer unique experiences for unforgettable memories. To this Brand belong more than 75 of the world's finest hotels and resorts, in more than 30 countries. The history of the brand started in 1906 with the Italian hotel group Compagnia Italiana Grandi Alberghi (CIGA). In 1985 Starwood Hotels & Resorts took over the Italian hotel group and most of these CIGA hotels became the brand "the Luxury Collection". The Luxury Collection offers the best destinations and the brand tries to make it an unforgettable experience for their guests, with extensive historical background of the different properties in the world (The Luxury Collection 2012).

The hotel Fuerstenhof has a huge history and belonged to Leipzig since the 17<sup>th</sup> century. The famous writer Goethe described Leipzig once as “little Paris”, because he wrote their parts of his the tragedy “Faust”. The hotel Fuerstenhof is located close to the historic and cultural city centre of Leipzig. With its big history, famous people and lots of sightseeing points, tourist from everywhere in the world come to Leipzig and to the Fuerstenhof (Leipzig 2013).

It is the only five-star superior hotel in Leipzig and presents to his guests a timeless elegance since over 100 years. The historic house speaks for itself and reflects the past, future and present of the hotel, property and also of Leipzig. It has 5 floors and in totals 92 elegant rooms. Each of the rooms has exclusive materials, exquisite fabrics and furniture of fine grained italian myrtle wood. In every room the guest has spacious marble bathrooms. Each floor has a similar construction and every room category is as well in the construction similar so it becomes easier to give guests information's about the rooms and categories.

The Fuerstenhof makes a major effort in the field of being environmental friendly and sustainable which includes in the banquet department with the concept of the green meetings. During the stay at the hotel guests and customers can experience different eco-friendly and green initiatives, such as:

Energy and water conservation which includes night lighting which is that part of the light which will be reduced during the night. The use of energy saving lamps and LED lights in all facilities of the hotel. Towels and sheets are not changed every day until guests require it and stove stations with induction fields are used.

Waste minimization and environmentally responsible purchasing includes recycling, environmentally preferred suppliers and bulk purchasing via the head office. Furthermore they purchase local and regional products around the area of Leipzig and make an in-house production of jam and bread. The hotel makes a charitable donation of disused cosmetic products to beneficial associations within the area of Leipzig.

Enhanced indoor environmental quality means a green housekeeping and an active use of blackout curtains to minimize the air conditioning performance.

Raising awareness with the "Starwood Green Card Program" as well as online transfer of meeting offers. Likewise that the banquet department is an eco-friendly counsel to help customers with their meeting requests.

The hotel offers environmentally friendly transportation with an optimal connection to the public transportation system in the center of Leipzig and also LPG and biodiesel filling stations in the area. Furthermore they have a contract with Deutsche Bahn. They offer DB Meeting Special with special conditions and environmental friendly to the meeting destination of the customers.

Besides that, the hotel offers sustainable conference practices with: online transfer and event planning on an electronic basis as well as the possibility of joining STAR-GROUPS - the Starwood online tool for event planning and group reservations. Guests have the opportunity of using the Starwood meeting specials with Deutsche Bahn with special rates and environmentally responsible travel to the conference site. In all of the meeting rooms of the hotel individually controlled air conditioning systems and recyclable flipcharts-paper which are water-based are installed. During the meeting use of PET bottles is undermined and the menu or buffet offer regional products and supplies (Hotel Fuerstenhof 2013).

In addition the hotel Fuerstenhof has also formed a green council. This council meets regularly and the employees can bring in ideas or can participate actively in the green council. They want to transpose the proposals and ideas in the hotel to contribute and support sustainability (Employee Handbook 2012, 31).

In the housekeeping department they have a green room program. The "green room" - is a program, where guests can choose whether they want to have bed linen and towels changed or not. With this program laundry costs and labor are saved at the same time.

There a white card is placed in the room. If this card is on the bed the complete bed linen will be changed for the residing guest. Towels will be changed when they lie on the ground. If there is no card on the bed, it will be made and the housekeeping places another card on the bed with “Thank you, you make the difference” (Employee Handbook 2012, 32).

The Fuerstenhof is doing its utmost to be environmental friendly and sustainable, not just in one department where the green meetings are taking place, but in the whole hotel.

#### **7.4 Results of the Research**

For the author the above mentioned observation methods and the interview were really important, as it helped to receive a feeling for the topic and to get an idea where to start. The researcher also wanted to clarify, by explaining the methods, that it was important to receive different views through the industry to ensure an understanding of the topic.

To implement green meetings within a hotel some steps have to be taken and it is not just done by talking about it. It is not possible to do this in a short time period. Research has to be done and then hotels have to evaluate where to start. Everything has to be done step by step to ensure success. Especially in the present time where the public’s awareness for sustainability and environmental friendliness is increasing constantly. The industry has to understand that greening your meeting is not just a trend anymore. It is important to implement green meetings within the daily hotel business.

The interview and the participation in a green meeting made clear that companies are interested and they want to see that hotels are offering green meetings. In 2012 the German Best Western hotels performed another a MICE study. The aim was to learn about current trends in meeting bookings and the criteria when companies select a hotel and also to identify developments. One conclusion of this study was that the demand for green meetings is increasing. For 20 percent of the companies, when they decide to book a hotel for a meeting, it is important that they offer an environmental

friendly green meeting. For the other 80 percent of the companies which are booking, it is at the moment still not a conclusive criterion for the selection of a hotel. In comparison to 2011 it is an increase of 1,7 percent (TW 2012, 46). Even if these are at the moment just small numbers and small steps there is an increase and a demand for green meetings within the companies. It can be seen that companies want to be greener and environmental friendly and they can start this by greening their meetings. Hotels have to adapt this and use it as selling point and marketing tool to show that it is possible to have a meeting and at the same time being sustainable.

Since the successful implementation of green meetings demands a large time frame, the introduction of these meetings should be started early. In the short term, the successful development of green meetings and green technology cannot be realized. Also for the introduction of green meetings a huge budget is not necessary. Because, even if hotels just make a small investment, results can be achieved with a great effect. For example by putting recycling bin in the meeting facilities or by providing drinks in durable and reusable glass. Green meetings create a possibility to establish sustainability and environmental awareness within the whole hotel and not just in the meeting department and facilities.

The author mentioned a little about the customer demand of green meetings and after the interview with Mr. Fischer from the Bio-Seehotel in Zeulenroda, Germany it was made clear that still much has to be done to raise the awareness. There is definitely a demand for green meetings, but it is still limited. At the moment the awareness is still not pounded, especially in smaller companies. Mr. Fischer mentioned during the interview that bigger companies have a higher demand for green meetings and they are interested that their meetings are performed environmental friendly surroundings and they are willing to pay more for them. On the other hand there are the smaller companies, although they are interested and ask for an offer, somehow they do not understand the reasons why they have to pay more and for what. So the employees of the sales department have to explain everything in detail to them and apply lots of effort (Fischer, M. 18.03.2013a). Nevertheless the author can tell that there is a customer demand for green meetings and green technology but there more information has to be provided for these smaller companies to create more interest in this target group.

## 8 Conclusion

The author of this thesis researched about reasons, content and applications of green meetings and green technology in the hospitality industry. This last chapter will provide the conclusion of this thesis. In the first part there will be an analysis about the research questions which were asked in chapter 1.1. Finally there will be an evaluation of the thesis process as well as recommendations for future studies.

### 8.1 Answers to the Research Questions

This chapter will summarize the findings from the research questions, which were presented in the introduction. There were four major research questions asked. During the research and writing of the thesis the author found answers to all four questions.

The first question was: What are the reasons for the appearance of green meetings and green technology? This question was answered in detail in chapter 2 of this thesis. The author concluded that climate change, travel behavior, consumer change and corporate social responsibility are the most important reasons why Green meetings and Green technology appeared. There are probably many more reasons but the researcher decided to explore these four in detail. It was good to ask this particular question in the thesis because it was significant to actually find out how it came this far.

In the second question was asked: Is there any special technology which could help to be greener within the meeting facilities of a hotel? This question is answered within the chapter green technology extensively. There is already a lot of special technology which is used to be more environmental friendly and sustainable within the meeting facilities of hotels. For example that they use interactive whiteboards in the meeting facilities, this helps to reduce the use of paper, the waste and also the usage of writing materials. Also the use of energy saving light bulbs or LED lights is a huge advantage and it helps to cut cost and minimizes the energy consumption. It may also be mentioned that, if the meeting facilities are provided with enough daylight, it won't be necessary to turn on the lights during the day at all. This is also an advantage and helps to be greener. After lots of research the author is able to tell that it is really important to have the

right kind of technology within the meeting facilities. Important to mention is that the technologies which are used in the meeting facilities can also be used in the whole area of the hotel and it is the same the other way around. The technology is a significant aspect because technology is used every day and with the right type it ensures to be greener in all departments of the hotel. So it is important that hoteliers always pay attention to new green technologies which are appearing on the market. It will help to be even greener and maybe to create a competitive advantage.

The third question that was asked: Is this a competitive advantage against other hotels or businesses, to provide a green meeting service? The author can answer this question with yes and no. In times where more and more attention lays on sustainability and environmentally friendliness, it is important that hotels offer green meetings. Hotels which offer green meetings are associated with economic, environmental and social benefits. Hotels that deal with green meetings at an early stage and create attractive offers defiantly have a competitive advantage compared to other hotels. Nevertheless it is also possible that green meeting packages, which are required, are taken for granted in the future. In addition, companies are getting more informed and involved in being environmental friendly so they have certain expectations from hotels with meeting facilities if they want to preform green meetings.

The last of the four research questions was: Are green meetings and green technologies a good investment for hotels to be more sustainable and to save costs? After lots of research in this field the answer to that question is yes. If a hotel decides to be more sustainable and environmental friendly certain investments have to be made. Firstly it will appear as higher costs for the hotel, but the future will show that it is worth the money. The author believes that it is not possible to see these investments for green meetings and green technologies as a short term goal. Modern technology and especially Green technology is expensive, but it helps to improve the environmental friendliness of the hotel. Hotels have to see this as a long term goal and an investment which helps to cut costs not just for the meeting facilities but for the entire property and that the hotel is more sustainable.

## 8.2 Evaluation of the Thesis Process

As the thesis topic green meetings and green technology in the hospitality industry has always interested the author it was only a logical conclusion that this topic was chosen. Furthermore, it helped that this topic was not researched before at the Haaga-Helia University of Applied Sciences.

Before the writing started the author had to concentrate what all comment to, in the thesis as it is to some extent quite a general topic. It had to be somehow limited. Finally, this done, it became easier for the author to start. The writing process of the theoretical framework was, in some situations, the most difficult part. It was difficult to compare the set research questions with the research that was done on the topic. Nevertheless it helped a lot that the author took part in a green meeting conference, made interviews and also did an internship in a hotel where sustainability and environmental awareness was a huge topic. With these prerequisites, it became easier to use the results found and put everything together as one.

A suggestion for improvement of this thesis is that the author probably would have had to carry out more interviews with experts. It would have helped to receive more details and to go deeper into the field of green meetings. Maybe it would have been even easier to write the thesis. Another suggestion would be questionnaires. They would have helped to get more details about the key issues of the topic. While writing the thesis a lot was learned about the field of being more sustainable and environmental friendly which the author could also use in her daily life. For example the author started to buy products from local farms with seasonal products. Furthermore it will help the author to deal with the thesis topic in the working life within a hotel in future and maybe provide them with suggestion what could be changed.

By evaluation of the thesis process it may be concluded that longer term enhancements have to be made in the hotel industry. An hotel whose environmental protection efforts are only limited to the conference area, loses its credibility. If the saving made in the green meeting department is lost in another area, this is not helping the environ-

ment and the operational environmental performance can hardly be improved in the whole hotel.

### **8.3 Suggestions and Recommendations for Future Studies**

The field of green meetings in the hospitality industry is a major one and there are lots of suggestions and recommendations for future studies, which can be done. During the research process a couple of possible topics came up for future studies.

One of them concerns the certifications which are offered. At the moment there are no certifications available just for green meetings in a hotel. The certifications which are available are all for the whole hotel. So it would be good to find out if there are any plans in the future for certifications which are created for green meetings. Also it would be necessary to establish what kind of guidelines should be followed for the different certifications. Of course they have to be explained and it could be an opportunity to work together with an hotel which is planning to implement a certification to get results at first hand.

Another possible topic would be about green technology. In this point the thesis may be bit to general but it is a good topic for others to get started and to go deeper into the topic of green technology. Students could explain in more detail the different kinds of technologies which are offered and how they influence the daily working of a hotel.

One more idea for more research could be to globalize the field of green meetings. Such as interviews with hotel managers from other countries to see what they are doing and how they implement green meetings in their daily business. Also if they involve employees in the topic with special trainings or information maps in that field. In addition to this it could be compared to the own country with similarities and differences.

## Bibliography

Atmosfair. 2013a. Think go climate conscious. 2013. Corporate services. Climate-friendly events. URL: <https://www.atmosfair.de/en/corporate-services/climate-friendly-events/>. Quoted: 24.02.2013.

Atmosfair. 2013b. Figure2. Nachdenken Klimabewusst reisen [Think go climate conscious]. 2013. Fuer Unternehmen [Corporate services]. Klimafreundliche Veranstaltungen [Climate-friendly events]. Emissionsquellen einer typischen Veranstaltung [Emission sources of a typical event]. URL: <https://www.atmosfair.de/fuer-unternehmen/klimafreundliche-veranstaltungen/>. Quoted: 24.02.2013.

Bryman, A. & Bell, E. Business Research Methods. Criteria in business research. Oxford University Press. Inc. New York. USA.

Camphausen, H. 06.11.2010. Effiziente Technik senkt Energieverbrauch [Efficient technology reduces power consumption]. Allgemeine Hotel und Gastronomie Zeitung [General Hotel Business & Gastronomy newspaper], 2010, 48. Quoted: 11.03.2013.

Churchill, G. & Brown, T. 2004. Basic Marketing Research. 5. Edition. South Western. Thomson Corporation. Ohio. USA.

Crawford, N. 2013. What Are the Benefits of Solar Powered Energy?. eHow. URL: [http://www.ehow.com/facts\\_7883781\\_benefits-solar-powered-energy.html](http://www.ehow.com/facts_7883781_benefits-solar-powered-energy.html). Quoted: 31.03.2013.

Crowne Plaza. 2013. Alice solar city. URL: <http://www.alicesolarcity.com.au/iconic-projects/crowne-plaza>. Quoted: 31.03.2013.

Cvent.2013. Green Meetings Made Easy. URL: <http://www.cvent.com/en/event-management-software/green-meetings-made-easy.shtml>. Quoted: 31.03.2013.

Darmstadttium. 2013. Green meetings. Go Green! Climate friendly meetings at the darmstadttium. URL:

[http://www.darmstadttium.de/index.cfm/content/green\\_meetings/pa\\_li\\_id/318/sp\\_id/1/sp\\_id/2/sp\\_id/1//sp\\_id/2/](http://www.darmstadttium.de/index.cfm/content/green_meetings/pa_li_id/318/sp_id/1/sp_id/2/sp_id/1//sp_id/2/). Quoted: 01.03.2013.

Dinh, H. 2011. Corporate Social Responsibility. Determination der Wahrnehmung, Wirkungsprozesse und Konsequenzen [Determination of perception, action processes, and consequences]. 1. Edition. Gabler Verlag. Springer Fachmedien. Wiesbaden. Germany.

DNV-Det Norske Veritas . Business Assurance. Zertifizierung. Managementsystem-Zertifizierung. Umweltmanagement. ISO 140001. [Certification. Management System Certification. Environmental management. ISO 140001]. URL:

<http://www.dnvba.com/de/zertifizierung/Managementsystem-Zertifizierung/Umweltmanagement/Pages/ISO-14001.aspx?gclid=CI7Kt5rh97UCFVEwzQodISYAWQ>. Quoted: 12.03.2013.

Dubrikow, K., Jaeckel, U., Schmidt-Räntsch, A., Eggers, H. & Kase, D. 01.11.2011. Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit-BMU [Federal Ministry for the Environment, Nature Conservation and Nuclear Safety]. Leitfaden für die nachhaltige Organisation von Veranstaltungen [Guidelines for the sustainable organization of events]. 2 Edition. URL:

[http://www.bmu.de/fileadmin/Daten\\_BMU/Bilder\\_Unterseiten/Themen/Wirtschaft\\_Produkte\\_Ressourcen/Produkte\\_und\\_Umwelt/Umweltfreundliche\\_Beschaffung/broschuere\\_leitfaden\\_umweltgerecht\\_bf.pdf](http://www.bmu.de/fileadmin/Daten_BMU/Bilder_Unterseiten/Themen/Wirtschaft_Produkte_Ressourcen/Produkte_und_Umwelt/Umweltfreundliche_Beschaffung/broschuere_leitfaden_umweltgerecht_bf.pdf) Quoted: 09.03.2013

EMAS. 2013a. EMAS Logo. URL:

[http://www.emas.de/fileadmin/user\\_upload/01\\_allgemeines/Logos/emas-geprueftes-umweltmanagement\\_ohneReg\\_600dpi.jpg](http://www.emas.de/fileadmin/user_upload/01_allgemeines/Logos/emas-geprueftes-umweltmanagement_ohneReg_600dpi.jpg). Quoted: 10.03.2013.

EMAS. 2013b. Was ist EMAS? [What is EMAS about?]. URL:

<http://www.emas.de/ueber-emas/was-ist-emas/>. Quoted: 12.03.2013.

EMAS. 2013c. Teilnahme [Participation]. Vorteile [Advantage] URL:

<http://www.emas.de/teilnahme/vorteile/>. Quoted: 12.03.2013.

Employee Handbook 2012. Hotel Fuerstenhof. Informationen von A bis Z. Green Council . pp. 31-32. Quoted: 18.02.2013.

Europa. 15.12.2011. Energy Roadmap 2050: a secure, competitive and low-carbon energy sector is possible. URL: [http://europa.eu/rapid/press-release\\_IP-11-1543\\_en.htm](http://europa.eu/rapid/press-release_IP-11-1543_en.htm) Quoted: 08.03.2013.

European commission. 25.10.2011. Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the Regions. URL: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0681:FIN:EN:PDF>, pp. 6. Quoted: 08.03.2013.

Figure 6: Steps to the registration for EMAS. URL: [http://ec.europa.eu/environment/emas/pdf/EMAS\\_General\\_Presentation\\_2011.pdf](http://ec.europa.eu/environment/emas/pdf/EMAS_General_Presentation_2011.pdf). Quoted: 12.03.2013.

Figure 7: Steps to the registration for ISO 14001. URL: <http://www.bsigroup.de/Audit-und-Zertifizierung/Managementsysteme/Standards-und-Systeme/ISO-14001/>. Quoted: 12.03.2013.

Figure 8: Steps to the registration for Nordic Ecolable. URL: <http://www.svanen.se/en/Svanenmarka/to-apply/>. Quoted: 05.05.2013.

Fischer, M. 18.03.2013a. Bio-Seehotel Zeulenroda. Sales director. Interview: Zeulenroda.

Fischer, M. 19.03.2013b. Bio-Seehotel Zeulenroda. Sales director. Power point presentation. environmental strategies. Email message.

GCB 2013. German convention Bureau. Green meetings Standards. URL: [http://www.gcb.de/assetfile\\_4facde114c9fc4ee2a00000c\\_0f0.pdf](http://www.gcb.de/assetfile_4facde114c9fc4ee2a00000c_0f0.pdf), pp. 2. Quoted: 12.03.2013.

Grahame, A. 2013. The Advantages of Solar Photovoltaic Energy. eHow. URL: [http://www.ehow.com/list\\_7472082\\_advantages-solar-photovoltaic-energy.html](http://www.ehow.com/list_7472082_advantages-solar-photovoltaic-energy.html). Quoted: 30.03.2013.

Green meetings und events. 2013a. Die internationale Konferenz zur Organisation Umweltgerechter Veranstaltungen [international conference on the organization of Environmental friendly Events]. URL: <http://www.greenmeetings-und-events.de/>. Quoted: 18.02.2013.

Green meetings und events. 2013b. Die internationale Konferenz zur Organisation Umweltgerechter Veranstaltungen [international conference on the organization of Environmental friendly Events]. URL <http://www.greenmeetings-und-events.de/vorort/darmstadtium.html>. Quoted: 01.03.2013.

Green meetings und events. 2013c. Die internationale Konferenz zur Organisation Umweltgerechter Veranstaltungen [international conference on the organization of Environmental friendly Events]. Programm und Referenten für die Konferenz 2013 [Program and speakers for the 2013 Conference]. URL: <http://www.greenmeetings-und-events.de/programm-2013/1-kongresstag-26-februar-2013.html>. Quoted: 01.03.2013.

Green technology definition. 2013. Deep Green. Definition. URL: <http://www.deepgreenrobot.org/green-technology-definition.html>. Quoted: 18.03.2013.

Herdorfer, P. 26.02.2013. Green meetings und event konferenze. Chairman of the German National Tourist Board (DZT) and Chairman of the Board of the GCB German Convention Bureau. Quoted: 26.02.2013.

Hotel Energy Solutions. 2013a. Micro Hydropower System, pp. 1. URL: <http://dtxqt4w60xqpw.cloudfront.net/sites/all/files/docpdf/re10microhydropowersystemfaq20062011okfinal.pdf>. Quoted: 31.01.2013.

Hotel Energy Solutions. 2013b. Energy School - RE – Hydropower. URL: <http://hotelenergysolutions.net/en/content/energy-school-re-hydropower.n> Quoted: 31.03.2013.

Hotel Energy Solutions. 2013c. RE - Wind Energy. URL:  
<http://hotenergysolutions.net/en/content/re-wind-energy>. Quoted: 31.03.2013.

Hotel Fuerstenhof. 2013. Green initiatives at Hotel Fuerstenhof, Leipzig: sustainability and eco-friendly green meetings. URL:  
<http://www.hotelfuerstenhofleipzig.com/en/green-initiatives>. Quoted: 18.02.2013.

IHG InterContinental Hotels Group. 2011a. Innovation Hotel. Rainwater harvesting. URL: <http://innovation.ihgplc.com/exterior/rainwater-harvesting>. Quoted: 09.03.2013.

IHG InterContinental Hotels Group. 2011b. Innovation Hotel. Meeting room. Waste food. URL: <http://innovation.ihgplc.com/meeting-room/food-waste>. Quoted: 09.03.2013.

IHG InterContinental Hotels Group. 2011c. Innovation Hotel. Meeting room. Reduced paper meetings. URL: <http://innovation.ihgplc.com/meeting-room/reduced-paper-meetings>. Quoted: 09.03.2013.

Kwidzinski, R. 29.06.2012. Green Meetings sind gefragt [Green Meetings are required]. AHGZ-Allgemeine Hotel und Gastronomie Zeitschrift. [Hospitality newspaper]. URL: <http://www.ahgz.de/marktdaten/green-meetings-sind-gefragt,200012196950.html>. Quoted: 10.03.2013.

Latif, M. 2006. Klima [Climate]. 2 Edition. Fischer Verlag. Frankfurt am Main.

Leipzig 2013. Facts about the city. URL:  
<http://www.leipzig.de/de/tourist/leipzig/wissenswertes/flair/>. Quoted: 18.02.2013

Lexikon der Nachhaltigkeit [Encyclopedia of Sustainability].13.09.2012. Umweltstandards: ISO 14001 & EMAS [Environmental standards: ISO 14001 and EMAS]. URL:  
[http://www.nachhaltigkeit.info/artikel/umweltstandards\\_iso\\_14001\\_emas\\_1563.htm](http://www.nachhaltigkeit.info/artikel/umweltstandards_iso_14001_emas_1563.htm).  
Quoted: 12.03.2013.

Lotter, D. & Braun, J. 2011. Der CSR-Manager. Unternehmensverantwortung in der Praxis [The CSR Manager. Corporate Responsibility in practice]. 2 Edition. Altop Verlag. München. Germany.

Manchester city council. 2013. GreenGuide. A guide to greening your event. URL: <http://www.manchester.gov.uk/downloads/download/2697/greenguide>. Quoted: 22.02.2013.

Meet Green. 2012. Connect Sustain Thrive. What is a green meeting? URL: <http://meetgreen.com/free-info/tips/what-is-a-green-meeting/>. Quoted: 22.02.2013.

Moon, S. 04.07.2012. Corporate meetings Network. Major benefits of green meetings for event planners. URL: [http://www.corporatemeetingsnetwork.ca/vreports/1\\_11/Major-benefits-of-green-meetings-for-event-planners-306-1.html](http://www.corporatemeetingsnetwork.ca/vreports/1_11/Major-benefits-of-green-meetings-for-event-planners-306-1.html). Quoted: 10.03.2013.

Nordic Ecolabel. 2013. URL: <http://www.nordic-ecolabel.org/about/>. Quoted: 27.03.2013.

Nordic Ecolabelling of hotels, restaurants and conference facilities. 28.01.2013. Draft of version 4.0 for consultation. URL: [http://www.ymparistomerkki.fi/files/3190/72HRK\\_Draft\\_4\\_0\(eng\).pdf](http://www.ymparistomerkki.fi/files/3190/72HRK_Draft_4_0(eng).pdf). Quoted: 27.03.2013.

Oettinger, H. 2013. Ist Europa bereit fuer den Energiefahrplan 2050? [Is Europe ready for the Energy Roadmap 2050?]. Forum Nachhaltig Wirtschaften. Das Entscheider-Magazin[Expert journal], 01, 1, pp. 14-15. Quoted: 07.03.2013.

Parkin, P. 26.05.2010. Green Technology: Green Technology for Hotels. Hotel industry UK. URL: <http://www.hotel-industry.co.uk/2010/05/green-technology/>. Quoted: 18.03.2013.

PBL. Netherlands Environmental Assessment Agency. 17.07.2012. Trends in global CO2 emissions; 2012 Report. URL: <http://www.pbl.nl/en/publications/2012/trends-in-global-co2-emissions-2012-report>. Quoted: 08.03.2013.

Schad, V. 2013. Die Elemente des Wandels [The elements of change]. Forum Nachhaltig Wirtschaften. Das Entscheider-Magazin [Expert journal], 01, 1, pp. 30. Quoted: 31.03.2013.

Sloan, P., Legrand, W. & Chen, J. 2013. Sustainability in the Hospitality Industry: Principles of Sustainable Operations. 2. Ed. Routledge. New York. USA. URL: <http://books.google.de/books?id=Tm1xvG0GAMUC&printsec=frontcover&dq=Sustainability+in+the+hospitality+industry&hl=de&sa=X&ei=xUM7Uc32I4jWswaO7IGAAQ&ved=0CDkQ6wEwAQ>. Quoted: 10.03.2013.

Solar energy at home. 2012. Types of Solar energy. URL: <http://www.solar-energy-at-home.com/types-of-solar-energy.html>. Quoted: 30.03.2013.

Spiegel. 02.11.2009. CO2-emissionfreies Reisen: Bahn bietet Großkunden Ökotickets an [CO2-emission-free travel: Bahn offers wholesale Ecological tickets]. URL: <http://www.spiegel.de/reise/aktuell/co2-emissionfreies-reisen-bahn-bietet-grosskunden-oekotickets-an-a-658668.html>. Quoted: 09.03.2013.

Starwood 2012. Corporate. URL: <http://www.starwoodhotels.com/corporate/about/index.html>. Quoted: 01.03.2013

Starwoodmeetings. 2013. Green and sustainable meetings. Reduce Impact and Increase Responsibility. URL: <http://www.starwoodmeetings.com/starwood-experience/green-initiatives/>. Quoted: 18.02.2013.

Sterling Planet. 09.12.2010. InterContinental New York Barclay Hotel Energizes With 100% Wind. CSRwire. URL: [http://www.csrwire.com/press\\_releases/31268-InterContinental-New-York-Barclay-Hotel-Energizes-With-100-Wind](http://www.csrwire.com/press_releases/31268-InterContinental-New-York-Barclay-Hotel-Energizes-With-100-Wind). Quoted: 31.03.2013.

The Luxury collection 2012. History. Facts. URL: [http://www.starwoodhotels.com/luxury/about/detail.html?section=about&category=history\\_heritage&parentCategory=about](http://www.starwoodhotels.com/luxury/about/detail.html?section=about&category=history_heritage&parentCategory=about). Quoted: 18.02.2013.

ThinkFirstFresh. 18.05.2012. Business management. ISO 14001 Certification. URL: <http://thinkfirstfresh.blogspot.de/2012/05/iso-14001-certification.html>. Quoted: 12.03.2013.

Tuev sued. 05.2006. Product information on ISO 14001 [Product information on ISO 14001], pp. 3. URL: [http://www.tuev-sued.de/uploads/images/1151052092524137100484/PI\\_iso14001\\_2\\_D06.pdf](http://www.tuev-sued.de/uploads/images/1151052092524137100484/PI_iso14001_2_D06.pdf). Quoted: 12.03.2013.

Tüv Rheinland. 2013. ISO 14001: Zertifizierung des Umweltmanagementsystems [ISO 14001 Certification of environmental management system]. URL: [http://www.tuv.com/de/deutschland/gk/managementsysteme/umwelt\\_energie/iso\\_14001/iso14001.jsp](http://www.tuv.com/de/deutschland/gk/managementsysteme/umwelt_energie/iso_14001/iso14001.jsp). Quoted: 12.03.2013.

TW Tagungswirtschaft. 27.07.2012. Best Western Umfrage. Nachhaltig Tagen mehrheitlich nicht relevant [Best Western survey. Sustainable meetings mostly irrelevant]. Journal, 03/2012, pp. 46. Quoted: 15.03.2013.

UNEP. 2009. United nation environment program. Green Meeting Guide 2009. What is a green meeting? PDF file. pp 9, pp. 24. URL: <http://www.unep.fr/shared/publications/pdf/DTIx1141xPA-GreenMeetingGuide.pdf>. Quoted: 22.02.2013.

UNWTO World Tourism Organization. 2013a. World Tourism Barometer. Presentation (1 slide): 2012 International Tourism Results and Prospects for 2013. URL: [http://dtxq4w60xqpw.cloudfront.net/sites/all/files/pdf/unwto\\_fitur\\_2013\\_fin\\_1pp.pdf](http://dtxq4w60xqpw.cloudfront.net/sites/all/files/pdf/unwto_fitur_2013_fin_1pp.pdf), pp. 4. Quoted: 07.03.2013.

UNWTO World Tourism Organization. 2013b. Why do they travel?. URL: <http://media.unwto.org/en/news/2012-12-12/infographics-turning-one-billion-tourists-one-billion-opportunities>. Quoted: 07.03.2013.

Veal, A.J. 2006. Research Methods for Leisure and Tourism: a practical guide. Pearson Education Limited. London.

Wegweiser. 2013. Green meetings und events Konferenz 2013. Informations for the conference. Greennote. Journal of the conference.

Wenzel, E., Kirig, A. & Rauch, C. 2008. Greenomics. Wie der Grüne Lifestyle Märkte und Konsumenten verändert [Greenomics. How the green lifestyle changed markets and consumers]. Redline Wirtschaft. FinanzBuch Verlag GmbH. München. Quoted: 10.03.2013.

## **Attachments**

### **Attachment 1. Interview questions with Mr. Manfred Fischer, Bio- Seehotel Zeulenroda, Germany**

1. What are the main activities of your company in terms of sustainability? And what do they look like at events or in your meeting rooms?
2. Where do you see the differences between regular meetings and Green meetings?
3. What makes your green meeting special compared to others?
4. What kind of audio-visual equipment do you have in your meeting rooms to make them more eco-friendly?
5. How do you stay up to date with regard to green meetings and green technology?
6. What are the future trends and techniques to be more sustainable in the meeting room facilities?
7. Is there a customer demand for sustainability?
8. Consider at the guests and in general is there a need for information? In terms of sustainability and green meetings.
9. Are companies and meeting guests willing to pay more for the
10. Are Green meetings less expensive for the hotel? What and where are the savings?
11. Do you feel that the number of certificates on the national and international markets can lead to confusion?

12. How do you train your employees?

13. How do you see the development in the coming years?