

VANESSA MEINEN

STEERING SUSTAINABLE EVENTS

PERFORMANCE:

TOWARDS A MORE BALANCED ASSESSMENT
OF SUSTAINABLE ASSOCIATION EVENTS

Steering sustainable events performance: Towards a more balanced assessment of sustainable
association events

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Samenvatting

Voortdurende economische groei test de grenzen van wat de aarde kan bieden, maar stimuleert ook een nieuw bewustzijn voor duurzaam denken en handelen. Taken zoals het rapporteren over maatschappelijk verantwoord ondernemen en de veranderende eisen van klanten zetten de evenementensector onder toenemende druk om het belang van duurzaamheid te erkennen en duurzame strategieën voor evenementenbeheer te implementeren. Evenementen van allerlei organisaties hebben vaak een economische, sociale en milieu-impact op de plaatsen waar ze plaatsvinden. Deze effecten kunnen zowel positief als negatief zijn. Zij kunnen ook aanzienlijke multiplicators zijn, kunnen worden gebruikt om het bewustzijn van duurzaamheid nog verder te vergroten en, belangrijker nog, helpen dit bewustzijn om te zetten in actie, bijvoorbeeld door het gedrag van betrokkenen te beïnvloeden en verschil tussen doelstelling en gedragspraktijk te minimaliseren.

De evenementen- en vergaderindustrie heeft zich van oudsher gebaseerd op economische prestatemaatstaven, waarbij de sociale en milieukosten en -baten buiten beschouwing zijn gelaten. Recente studies hebben echter de noodzaak onderstreept van een meer holistische benadering. Deze benadering wordt in dit onderzoek verder uitgewerkt. De theoretische en empirische bevindingen van dit proefschrift zijn geschikt om de praktijkgerichte duurzaamheidsdoelen te bereiken die aan het begin werden ontwikkeld. Het proefschrift wil belanghebbenden, besluitvormers, eventmanagers, verenigingen en congresorganisatoren een strategisch instrument aanreiken om de economische, sociale en milieu-impact van een gepland evenement in kaart te brengen, om deze vervolgens gericht en duurzaam te benutten binnen het betreffende werkterrein.

De strategische maatregelen voor het optimaliseren van de effecten van evenementen zijn afgeleid van de resultaten van de empirische studie. Bovendien zullen deze maatregelen dienen om de duurzame verenigingsevenementstrategie te verankeren binnen de bedrijfsvoering en de interne en externe communicatie. Gifford's Dragons of Inaction kunnen worden toegepast om mogelijke barrières te bepalen en, tenslotte, om te streven naar het minimaliseren van de kloof tussen duurzaamheidsbewustzijn en duurzaam gedrag. Daartoe kan de doeltreffendheid van relevante attitudes, gedragsgerichte vormen van interventie evenals intenties of stimulansen voor handelingen, en waargenomen gevolgen worden beoordeeld en geëvalueerd in termen van hun essentiële factoren.

Binnen dit model zijn een aantal onderzoekstappen genomen: een literatuuronderzoek legt de basis voor latere empirische onderzoeken die in de vorm van semi-gestructureerde interviews werden uitgevoerd, een online Delphi-voorspelling en een enquête onder deelnemers van een verenigingsevenement. De bevindingen van deze mixed-method aanpak zijn gebruikt om een model te ontwikkelen om de duurzaamheid van evenementbeheer te integreren, te meten en te sturen vanuit het perspectief van eventplanners en verenigingen, en om een nieuw concept voor te stellen voor het omzetten van de theorie in toegepaste praktijk voor de industrie.

Abstract

Perpetual economic growth tests the limits of what earth can provide, but it also spurs new awareness for sustainable thinking and action. Duties such as corporate social responsibility reporting as well as shifting customer demands are placing increased pressure on the association events industry to acknowledge the importance of sustainability and implement sustainable event management strategies. Association events tend to have an economic, social and environmental impact on the places in which they occur. These impacts can be both positive and negative. They can also have substantial leveraging and multiplier effects, can be used to elevate awareness of sustainability even further and, most importantly, help transform this awareness into action, for example by influencing stakeholders' behaviour and minimising behavioural gaps.

The events and meetings industry has traditionally relied on economic performance measures, eschewing social and environmental costs and benefits. However, recent studies have underlined the necessity for a more holistic approach. This approach is fleshed out in the present research. The theoretical and empirical findings of this dissertation helped to achieve the practice-oriented sustainability goals developed at the outset. The dissertation aims to offer stakeholders, decision-makers, event managers, associations and congress organisers a strategical instrument with which to identify the economic, social and environmental impacts of a planned event in order to utilise them in a targeted, sustainable fashion within the respective field of operation.

The strategic measures for optimising event impacts were derived from the results of the empirical study. Moreover, these measures will serve to anchor the sustainable association event strategy within business operations as well as internal and external communications. Gifford's Dragons of Inaction can be applied to determine possible barriers and, finally, to strive to minimise the gap between sustainability consciousness and sustainable behaviour. To this end, the effectiveness of cooperating attitudes, behaviour-oriented forms of intervention such as intentions or incentives for actions, and perceived consequences can be assessed and evaluated in terms of their essential dimensions.

A number of research steps have been undertaken within this model, beginning with a literature review. This laid the foundation for subsequent empirical studies conducted as semi-structured interviews, an online Delphi forecast as well as a survey among participants of an association event. The findings of this mixed-method approach were used to develop a model to integrate, measure and steer event management sustainability from the perspective of event planners and associations, and propose a new concept for converting theory into applied practice for the industry.

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“We’re free to go where we wish to go and to be what we are.”

Richard Bach, Jonathan Livingston Seagull

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List of Abbreviations

ACEM	Australian Centre for Event Management
AIPC	International Association of Convention Centres
BMU	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
BSC	Balanced Scorecard
CIC	Convention Industry Council
CO ₂	Carbon dioxide
CSR	Corporate Social Responsibility
DNK	German Sustainability Codex
EIA	Environmental Impact Assessment
EMAS	European Management Audition Scheme
e.V.	Registered association
EVVC	European Association of Venue Centres e.V.
EUA	European Environment Agency
FAMAB	Association of direct Economic Communication e.V.
GCB	German Convention Bureau e.V.
GMIC	Green Meeting Industry Council
GRI	Global Reporting Initiative
IAPCO	International Association of Professional Congress Organisers
ICCA	International Congress and Convention Association
IHK	Industrie- und Handelskammer
IMEX	Exhibition for Meetings and Incentive Travel
ISO	International Standard Organisation
ITB	Internationale Tourismus Börse / International Tourism Trade Fair
IUCN	International Union for Conservation of Nature
JMIC	Joint Meetings Industry Council
MICE	Meetings, Incentives, Congresses and Events
MPI	Meeting Planners International
OECD	Organisation for Economic Cooperation and Development
RFP	Request for proposals
SIA	Social Impact Assessment
SDGs	United Nations Sustainable Development Goals
TBL	triple bottom line approach
UIA	Union of International Associations
UNEP	UN Environment Programme
UNWTO	World Tourism Organisation
WBCSD	World Business Council for Sustainable Development
WWF	World Wildlife Fund

1 Foundations

The first chapter will introduce the research objectives and their aim, thus presenting the background of the study.

1.1 Introduction

While writing this thesis, the SARS-CoV-2 pandemic hit the world full force, shaking the events industry to its foundations. Person-to-person contact and interactions were curtailed, even partially forbidden during the strictest lockdown periods. Several countries implemented severe travel restrictions and health safety regulations. As this dissertation analyses the German association events industry, most examples are taken from there; however, the meeting and events industry is truly a global one and it is not an exaggeration to say that it is at a precipice. While sparse few events are currently permitted, the vast majority remain outright forbidden or subject to a wide range of restrictions and many conferences have been postponed or were planned for 2021 with highly dynamic parameters and a growing focus on hybrid event formats.

This dissertation argues that hybrid meetings should be perceived as an important part of sustainable event management, a notion which the current pandemic has only reinforced. However, most of this dissertation – including primary and secondary research, as well as the methodological design and interpretation of results – was written before Covid-19 emerged. But this sudden pandemic has changed the world as we know it, thus the last chapter will take this into account and provide an outlook into a post-pandemic association events industry, including synergies with current trends such as sustainability and digitalisation.

It should be noted that prior to the pandemic, the association events industry was already undergoing massive transformation: rapid technological development, demographic shifts, societies in motion, a growing demand for safety and security, and increasingly heterogeneous target groups demanding more sustainability in tourism have been exerting pressure on event organisers and meeting planners for some time.

The meetings and event market in Germany was booming pre-pandemic (Meeting- and Event-Barometer 2018/2019). Statistics showed that in 2018 more than 412 million participants attended some 2.89 million events and, as in previous years, congresses, symposia and seminars formed the largest segment at 60.9%. This segment also showed a growth of 3.1%. Germany is again the leading destination for scientific congresses and association events, in terms of both national and international figures. When comparing all global congress destinations, Germany is number one in Europe and number two worldwide behind the USA according to international statistics (ICCA, 2018). This is based on 642 international association events reported in Germany in 2018. Congresses, conferences, conventions, seminars, symposia, meetings and association events are platforms for interaction and exchange, for presenting and transferring knowledge, and for networking. Although there has been a significant shift towards hybrid events, which has gained even more momentum in the pandemic, live events will nevertheless remain important, as face-to-face professional exchange remains a key element valued by many.

1.2 Background

“Business as usual within the events industry can’t continue. Our industry can’t keep producing mountain ranges of rubbish, or leave clouds of CO₂ in legacy. No matter the

type of event, every coming together of people for a purpose can be done so with consideration for sustainability” (Jones, 2011:12).

Frost, Mair and Laing (2014) state that the future of events is green; an appraisal which is supported by results of the industry study Meeting and Event Barometer (2014): The interviewed suppliers and organisers dubbed “green meetings and events” a new megatrend. Moreover, they noted that sustainability components such as the integration of regional products or compensating for CO₂ emissions are of increasing importance (EITW *et al.*, 2014:29).

But does the present zeitgeist with its focus on “green” meetings and events, also evident in the “Fridays for Future” movement and Hall’s statement that “the concept of sustainability is now integral to the lexicon of tourism and is increasingly becoming part of the discourse of mega-events” (Hall, 2012) and Holmes’ that “the role of sustainability in events and festivals is becoming increasingly important” (Holmes, 2015:xvi) actually correspond to behaviour, i.e. are sustainable events truly becoming more frequent? Evidence shows that the actual demand for sustainable events is low (Holmes, 2015; Meeting & Event Barometer, 2014). There are certainly efforts being made in terms of conserving resources, but they are not anchored in a holistic strategy nor measured and optimised, but rather concentrated primarily on environmental impacts within the broader concept of sustainability.

A current survey of the events industry shows that only ten percent of all event briefings require sustainability measures and only one client out of 100 actually books a “green event” (Shinde, 2012:13). Thus, growth of sustainable meetings and events is evidently slow. The increasing interest in this topic is still nascent and has only been observable a few short years (Große Ophoff, 2012:185). This is supported by Mair and Jago (2010:78) who state that “the topic of corporate greening has been covered in the business literature, there are few models to explain this very important process which is a gap in the literature” (Mair and Jago, 2010:78; Prakash, 2000).

Thus, achieving sustainability can be seen as a major trend and has become one of the fundamental goals of many associations or event organisers in the past decade. Growing interest in the concept of sustainability has led to various studies among researchers and the development of strategies for implementing sustainable events. While an all-encompassing definition for sustainable association events has yet to be found, indicators for sustainable event management developed by the research conducted here help to assess if an event is moving towards sustainability. Defining terms and identifying both indicators and implementation strategies are key to making this concept more focused and quantifiable.

The ecological footprint of the average convention delegate is 3.5 kg residual waste, 5.5 kg wastepaper, 15 l of wastewater and 204 kg of CO₂ (N. N. a., 2015:23). The necessity of the topic, i.e. making events more sustainable, is based on the following considerations:

- Events are based on the three branches of trade responsible for 70 to 80% of all environmental impacts: food and beverage, location and mobility (Trillig, 2013:255);
- Awareness for sustainable event management has increased in recent years; and

- The entire German meetings and events industry has grown continuously to nearly three million MICE¹ events and 412 million delegates (Meeting and Events Barometer, 2018/2019; EITW *et al.*, 2014:10).

This means that sustainable association events have a significant leverage and multiplier function, which can potentially influence sustainability measures in our broader society and contribute to achieving the global 1.5-degree-target set forth by the UN climate conference in Paris in December 2015 to fight climate change. Sustainable development and sustainability have gained global recognition as fundamental issues closely connected to the continued survival of humanity. The idea of sustainability has penetrated all aspects of society and should thus be an important consideration in event development as well (Holmes, 2015:2).

Sustainability is in a bit of a bind: the topic is covered in many industries, dubbed a trend in numerous areas of business and society and, in theory, most people are aware of the need for sustainability in sectors such as lifestyle, food, clothing, and also event management. But reality shows a different situation: though sustainable event management regulations exist for hallmark events such as the FIFA World Cup or the Olympic Games, binding guidelines for the meetings and events industry are still rare. According to the German Convention Bureau (GCB, 2013), the same can also be said for most association events organised with sustainability in mind. This could be due to vague definitions, missing laws or lack of demand from clients. With continued economic and population growth came the realisation that there are indeed limits to earth's capacity to provide, resulting in rising global environmental concerns (Grober, 2013; Carson, 1965). "Our Common Future", a UN report more commonly referred to as the Brundtland Report², summarised these new environmental challenges and introduced this imbalance to the global agenda.

The concept of sustainability impacts not only our daily lives, but many industries including the association events industry as well. Although the broader concept of sustainability focuses on environmental issues (Schreiber, 2011; Jones, 2014), another issue which will be highlighted throughout this dissertation, this thesis encounters a holistic approach. A growing number of events, association publications as well as industry and journal articles confirm growing awareness and debate on the topic of sustainable meeting management (GCB, 2013; ICCA, 2014). This is underscored by Rogers, who highlighted that "sustainability issues are becoming mainstream concerns and challenges within the conference and conventions industry" (2008:313). Moreover, the White Paper of the MPI Foundation of Canada, entitled "The Economic Impact of Meetings and Events" (2006), described the potential of "green" meetings and events to improve the eco-efficiency of hosting facilities as an "important trend with significant economic potential for the meetings industry" (Rogers, 2008:313).

Employees, social and environmental groups, communities and governments are placing increasing pressure on associations and organisations to be more transparent with their sustainability-related performance, i.e. implementing, measuring and reporting on it. At the same time, information requirements have grown in proportion to the number of stakeholders. Many organisations and associations responded by implementing new practices in corporate social responsibility and introducing their own sustainability guidelines. However, the traditional style

¹ MICE is an industry-sector-specific acronym for *Meetings Incentives, Conventions und Exhibitions* and is defined by Kim *et al.* (2011) as follows: "The meetings, incentives and exhibitions that comprise the MICE sector all aim to bring together people whose purpose is to share updated information and ideas, to sell or buy new products, or launch new products to reach a consensus on various challenges."

of accounting eventually proved insufficient (Elkington, 1999a), with many businesses incorporating the *triple bottom line approach* in their reporting. Here, environmental and social aspects are considered next to traditional economic aspects (Elkington, 1999a). These efforts were supported with materials such as the *Sustainability Reporting Guidelines* (Global Reporting Initiative 2006b) and the development of organisations such as the *World Business Council for Sustainable Development*, which provides assistance in developing indicators.

Nevertheless, some sceptics argue that the *triple bottom line approach* measures only singular aspects without highlighting how they influence each other. Thus, this study aims to test whether a model such as the *sustainable association event steering wheel* (SAESW) could be an option for quantifying sustainable association event management. The concept of sustainability encapsulates the overall process of the proposed research project, while models such as the SBSC, Oblasser and Riediger's Portfolio-Matrix, Köhler's conceptual framework and Wall and Behr's model form the theoretical underpinning for the analysis employed by this study.

Rigid and inflexible models cannot cope with the pace of change in organising and communicating event design: flexible and agile processes and concepts as well as strategic frameworks are demanded to answer fundamental questions such as how the association is creating value, for whom, and whether the value created is in line with an organisation's mission and vision, including their sustainability goals. To achieve prosperity in today's world, associations need flexible models that demonstrate the ability to identify new opportunities, embrace change with a flexible strategy and not only implement, but optimise sustainable event management measures.

The meetings and events industry is a resource intensive one with many topics and effects that impact itself and many others as well. This will be highlighted in more detail over the following sections. As the focus of this research lies on the meetings and events industry, the next paragraphs will cover sustainability in events operation and evaluation.

1.3 Justification of research

Despite the fact that the meetings and events industry is a leading global industry, generating 280 billion USD in direct spending for the US economy alone (CIC, 2013), academic literature covering this sector was sparse in the past (Ladkin, 2002), but appears to be growing currently. Studies such as the UNTWO have analysed the economic significance of the industry (2014) and demonstrated the growing importance of this sector. Moreover, an increasing number of journal articles related to the meetings industry are being published (Sherwood, 2007; Hede, Jago and Deery, 2002; Sherwood, Jago and Deery, 2005) with a growing emphasis on sustainability (Jago and Shaw, 1998). This view is supported by Mair and Jago (2009:77), who stated that there were only few papers covering the meetings and events industry and its side effects. Furthermore, they adhere that there is no tourism without travel; a challenge for the industry. Many delegates travel to one destination to meet. This has both a global impact (greenhouse gas emissions) as well as a local impact, and poses an inherent challenge to implementing sustainable meetings. Not surprisingly, Mair and Jago, as cited in Merrilees and Marles (2011:364), determined that the meetings industry was still "in an embryonic stage of greening."

In Germany and many other European countries, many destinations, convention bureaus, professional congress organisers, scientific associations and businesses have incorporated sustainability into their operations or strategies, as it has become clear that sustainability is not merely a trend, but an the opportunity for attracting participants, garnering more media coverage and

destination branding and tapping into other economic benefits (Carlsen, Getz and Soutar, 2001; Jago, Chalip, Brown, Mules and Ali 2002).

One example is the *German Convention Bureau e.V.* (GCB), the leading association in the German meetings and events industry, which has committed to supporting sustainable development in Germany. As previously mentioned, 2.89 million meetings with more than 412 million delegates were held in 2018 (GCB, 2018). However, there is currently no consistent standard for sustainable events and event managers generally do not make use of sustainable concepts (GCB, 2014). Therefore, a training programme for sustainability advisors was developed by the German Federal Environmental Foundation (*Deutsche Bundesstiftung Umwelt*). The aim is to create advisors who will act as sustainability multipliers in businesses, giving event managers a greater pool of knowledge to draw upon when organising sustainable meetings (GCB, 2013). Another indicator of the importance of sustainable meetings and events in Germany was the UNESCO Commission award the GCB received for this sustainability advisor training programme. Similar examples can be found in surrounding regions, too. In Scandinavia, for instance, the *Destinations Sustainability Index* was established (ICCA, 2014).

These examples show that sustainable events are becoming a higher priority consideration for decision-makers. This naturally poses the question of how then to quantify sustainable events? Ritchie (1984), for example, pointed out the necessity for a more comprehensive approach to evaluating the impact of hallmark events than what was in use at the time. This is supported by Holmes', who noted that "events take place in specific political, economic, environmental and social contexts and all events create impacts, both positive and negative" (Holmes, 2015:2). Faulkner (1993:18) also highlighted that the "monitoring and evaluation of environmental and social impacts of events has generally been perfunctory or non-existent" and Getz (2000:21) noted that "there is a need for more standardised methodology for evaluating events and their impacts; more comprehensive methods and measures of value must be used." This is in line with the claims of the German Convention Bureau that standardised models for evaluating sustainable meetings and events are missing and this lack of standardised approaches limits the comparability of sustainable event evaluation results (GCB, 2015).

Several associations and institutions offer definitions and standards (ICCA, UIA, GCB, GMIC or APEX, for instance) (GCB, 2015) on and of this industry are various and the impacts are difficult to measure due to its complexity and dynamic. This research project will attempt to help bridge the relevance gap between researchers and practitioners by developing a model for the association events industry.

Despite the fact that economic impact reports are primarily used, there seems to be a certain level of scepticism about the methods and results of these sustainable event performance evaluations. As in destination branding, the real benefits are difficult to measure, as they might be unevenly distributed within a destination, there are tangible and intangible issues to consider and also due an often broader range of stakeholders. This demonstrates the need for a broader method of evaluation. Sherwood (2007) stated that several researchers have indeed called for a broader evaluation method to assess the impact of events and that among these researchers the method gaining the most traction is the previously-referenced *triple bottom line approach*, which considers the economic, social and environmental impacts of events. Bramwell (1997:18) stated that "events should be assessed from the outset in relation to the concept of sustainable development, with key indicators of sustainability being identified and then monitored over a long period." Additionally, Fredline *et al.* (1994) developed a conceptual framework which underlined how triple bottom line measurements could be added to allow for a

holistic evaluation of event impacts. However, this concept is also criticised because the three aspects of sustainability are measured individually, not in relation to one another.

This study aims to analyse the drivers of sustainable events and how they are implemented and measured. Legislation, stakeholder pressure and international expectations will be analysed in order to identify possible drivers of sustainable event management. What is the motivation to include sustainability in event management? Is there a gap between what businesses say and do? This gap might be found in their company reports. What influences sustainable event management? Associations and event managers are keen to assess whether their sustainable events perform well and how their strategies spur performance. These questions have led to increased demand for indicators and a model for measuring and optimising the results of sustainable event management.

In the past, organisations have mostly relied on standard financial indicators for performance reports (GRI, 2006), but demand to include environmental and social aspects has grown as well. In addition, the EU introduced a new obligation to report on CSR topics in 2017, adding a compulsory element to sustainable action, at least for corporate entities of a certain size (> 500 employees) as well as banks, insurance companies and investment companies regardless of whether they are listed on the stock exchange (IHK, no date). Non-financial services and operating figures of the whole value chain, including sustainability aspects of suppliers and subcontractors of fairs, conventions and live-communication events, must be communicated, documented and reported transparently. This necessitates the development of a sustainability criteria model for assessing the performance of association events. Internal and external communication are essential parts of this process, thus models such as the assessment scheme of sustainability consciousness based on Spada, Maloney and Ward as well as Kley and Fietkau will be applied, too.

In recent years, associations worldwide have wrestled with challenges such as effectively marketing to new members and participants for event and, ultimately, enhancing their competitive prospects and value. They are striving to carve out their own niches and looking for strategies to create a tangible legacy through their events. The growing importance of the association events industry is also shown in the growth of academic educational programmes where the organisation and impact of events, their legacies and sustainable strategies increasingly form key parts of event management education. Holmes (2015:xvi) figured out that there are currently only a limited number of textbooks which consider sustainability as a holistic part of events management. Sherwood, Jago, Deery believe there is a lack of event-specific indicators and thus standardised measurements for a holistic sustainable event assessment, which would enable benchmarking of various event types and underpin the type of framework proposed by Fredline *et al.* (2004).

As will be examined in Chapter 3, crucial steps for the increase in sustainability reporting were the establishment of the *World Business Council for Sustainable Development* (WBCSD, 1997), the development of the *Global Reporting Initiative* (GRI, 2006) and the introduction of standards and schema for environmental management and audit systems such as *EMAS* or *ISO 14000* (OECD, 2001). However, these schemas do not explain how to easily compare association figures, meaning there is no flexible approach for a holistic and integrated sustainable association event management. In order to meet current challenges, this would be required in order to deliver a suitable instrument for decision-making, implementing and optimising sustainable event performance. This would be a model offering a comprehensive approach for steering the effects of association events in order to optimise them from event to event.

One of the key challenges event organisers face is the lack of a model for determining what should be implemented, how it should be measured and how to leverage figures to better identify and communicate the impact of events for different stakeholders. This could change how sustainable association events are planned and measured, leading to a continuous stream of optimisation for series of events. The model proposed in this dissertation helps define initial intentions and engage stakeholders, manage the process for implementing the desired impact systematically, assess and measure sustainability performance against globally accepted standards and custom indicators and, finally, helps associations generate the most value possible for their efforts and shoulder responsibility.

Having established the background of the study as well as highlighting its challenges in terms of terminology, implementation and measurement, we now move on to a discussion on the scope of research, its aim and objectives vis-à-vis the research questions.

1.4 Research scope

As this study will focus on sustainability within the association events industry, this niche must first be narrowed down somewhat. This will be done briefly in this section and in greater detail in the literature review in the following chapter.

From a bird's eye view, the tourism industry can be divided into two parts: the events sector and the leisure sector. The events sector in turn can be sub-classified into two more sectors: tourism events such as special events and festivals on the other hand, and the meetings and events industry, also known as the MICE industry, on the other (Schreiber, 1999; Schlenrich, 2008). This definition is similar to the common understanding of the term "MICE" discussed in Chapter 2. Despite some commonality with the leisure tourism sector, the meetings industry has several unique and distinguishing characteristics. In reference to UNWTO (2006:34) it can be described as "[...] travel which involves all participants who, changing their usual activity and usual environment, come to a multilateral gathering organised around a previously established, advertised theme." The multilateral scale, previously established topics, the fact that participants contribute to the organisation, the overall execution and the development of a meeting (e.g. in terms of the scientific programme) are all significant features of meetings tourism. For association events in particular, i.e. the special focus of this dissertation, one of the various executive institutions is appointed to organise an event. Additional distinguishing characteristics will be highlighted in Chapter 2.

Having more narrowly defined the niche in which the study will be conducted, it is important to clarify what is meant by sustainable event management from the industry's perspective and how the industry currently uses sustainable meeting management approaches.

Many industry standards for sustainable management were developed in the last couple of years. Examples used here are *APEX* (Accepted Practices Exchange), *Industry Glossary of Terms* (CIC, 2003, cited in Bowdin *et al.*, 2006:14), *Convention Industry Council* (CIC, 2011), *Green Meetings Industry Council* (GMIC), *International Congress and Convention Association* (ICCA), *German Convention Bureau e.V.* (GCB) and the *Scandinavian Sustainability Destination Index* (ICCA, 2014). Raj and Musgrave (2009:4) state that there have been important developments toward the meetings and events industry becoming more sustainable. This is a point which will remain in focus throughout this dissertation. Henderson (2013: 154) mentions that "some researchers (Laing and Frost, 2010; Henderson, 2013) have already identified the

difficulty in defining the concept of a sustainable meeting and its relation to other terminology such as ‘green meeting or events’”, a wording subject to controversy in Große-Ophoff (2015).

Sox *et al.* (2013:146) state that “sustainability within conferences and conventions is currently viewed as a megatrend that is influencing the industry.” Although a current issue, there is limited literature identifying the role of sustainability vis-à-vis meetings, incentives and the event industry despite evidence that consumer decisions are influenced by environmental and social concerns (Diamantopoulos *et al.*, 2003). Until recently, there seems to have been a significant lack of awareness and agreement as to what sustainability initiatives should look like. Accordingly, and due to the fact that sustainable meetings management is a topic of growing interest in more than just the meetings industry (ICCA, 2014; GCB, 2013), many companies and associations will need a helping hand in the near future with this issue.

The Responsible Business Forum from IMEX projects that “by 2050, the global population will hit 9 billion people and the increased demand for water, food and energy will exceed our current capacity to provide” (IMEX, 2014). In other words, sustainability is unavoidable across the board, not just in meetings management. Though stakeholders are not quite certain as to whether it is a necessity or just a trend, the inescapable and widening imbalance between resources and needs will eventually make sustainable meeting management into a common sense approach. DeSimone and Popoff (1997) as cited in Musgrave and Raj (2009:1) noted that “sustainable management has emerged out of a necessity to continue to grow and prosper while working in partnership with surrounding communities, the environment and the economy. Therefore, the sustainable events manager must be aware of the concept of sustainability and implement the principles within the organisation and delivery of the meeting or event.” Sustainable meeting management will eventually be incorporated into all phases of event organisation, from planning and organisation to execution and post-meeting debriefings. As in other sectors, it is crucial that sustainable management strategies reach all levels of a company or association, as well as all stakeholders (ICCA, 2014).

The Sustainable United Nations unit of the *United Nations Environmental Programme* (2009) provides the following definition for a “green event”: “A green event is one designed, organised and implemented in a way that minimizes negative environmental impacts and leaves a positive legacy for the host community” (UNEP, 2009:9). But, as mentioned, a more holistic approach should be driven in this paper as, for example, described by Dwyer (2005:236): “...sustainability in these three domains is consistent with the *triple bottom line*, a framework for measuring the progress of sustainable development in three equal parameters, often cited as the three P’s: people, profit and planet.”

Sustainable event management as defined within this study is the process of planning, implementing and reviewing a meeting within the context of social, economic and environmental considerations. As many actions and measures as possible will be taken into account, and all phases of event staging as well as all levels of a meeting’s organisation, including suppliers and stakeholders, will be covered. However, it is often claimed that the “how to is missing” respectively rarely (Park and Boo, 2010; Raj and Musgrave, 2009:43) and this will be delivered here.

Thanks to researchers such as Sherwood (2007), Schreiber (2011), Jones (2014), Köhler (2014), Oblasser and Riediger (2015) as well as industry associations such as the *German Convention Bureau e.V.* (2013) or the *Green Meetings Industry Council* (2012), sustainable meetings and event management can produce several positive benefits, including lower operating costs due to reduced energy consumption, minimising waste and increasing recycling, boosting the purchase of local and regional products, can add to the budget and improve the organisers’ reputa-

tion. It also has a multiplying function of sorts, as a sustainably organised event is a visible demonstration of the organisation's or association's commitment to sustainability, which promotes awareness of resource efficiency and of sustainability in general to various stakeholders. Informing stakeholders of the additional social benefits and potential cost reductions as well as freely sharing best practice examples can help motivate others to introduce sustainable event management and narrow the gap between awareness of sustainability and real action. But beyond cost reduction, pursuing sustainability more importantly creates strategic opportunities. This research aims to demonstrate this clearly, while also illuminating current industry practices and proposing better indicators of a modern sustainable association event.

As for organisations, the economic benefit of an event is often the decisive argument (Köhler, 2014; Baade, Matheson, 2004:345; Delpy, Li 1998:231), with many scholars focusing on the monetary effects of events (Preuß, 2010; Hvenegaard, Manaloor, 2007; Matheson and Baade, 2006). In contrast, non-monetary aspects such as social (Fredline, Jago and Deery, 2003; Delamare, 2001; Köhler, 2014) or environmental effects (Sherwood, 2007; Gans, Horn and Zemann, 2003) have received significantly less attention in tourism and event science, which impedes a strategic and balanced analysis (Köhler, 2014). This is reinforced through the mostly one-dimensional effect analysis of events and lack of multi-dimensional studies of event impacts (ibid). As one-dimensional impact analysis always focusses on select stakeholders (e.g. inhabitants, regional enterprises), no holistic strategic concept for the improvement of sustainable events can be developed. This is only possible with a multi-dimensional impact analysis.

Fortunately, demands to include several stakeholder groups when evaluating event impacts have increased over the last decade in tourism and event science (compare Sherwood, 2007; Getz, 2019; Geland, 2003; Fredline, Jago and Deery, 2003), leading to the development of the first multi-dimensional impact analysis approaches (Sherwood, 2007; Stettler *et al.*, 2005; Fredline *et al.*, 2005; Getz, 2019). A detailed reflection on these approaches and studies reveals the compilation of event impacts in favour of a standardized approach mostly on the basis of only few indicators or parameters. This leads to the risk of losing important information for the institution interested in a balanced and holistic approach to sustainable event management. These analyses often allow an assessment of impacts in comparison to other events only (Stettler *et al.*, 2005; Fredline *et al.*, 2005) and the literature shows that most impact studies occur after events (O'Brien and Chalip, 2007:297). These concentrate mainly on identifying, describing and explaining the impacts which occurred, but do not take into account strategic optimisation measures for specific events and association.

Numerous gaps exist, for example in the methodological integration of event impacts, barriers and motivation analysis, a communicative approach throughout all leadership levels of an organisation, and strategic measures for optimising sustainable event impacts, leading to vague, inconsistent or overly complex measures. In response, this dissertation will tie into the challenges discussed in order to develop a multi-dimensional model for the strategic implementation, control, measurement and optimisation of sustainable association event management, i.e. sustainable event performance.

1.5 Research aim

This brings us to the goals of this research study. Its theoretical aim is the creation of a model which allows for the implementation and measurement of more sustainable conferences, congresses and meetings (association events). Therefore, the first theoretical approach will be to summarise, analyse and critically discuss existing definitions and findings on sustainability and

events as well as event impact research through the eyes of different disciplines such as event science, tourism research, economics, sustainability studies and intersecting social aspects. This will result in a multi-dimensional evaluation of event impacts and the connected barriers and motivations for implementing sustainable association event management. Moreover, the identification of key indicators and an easy adaption to different scenarios based on the flexible usage of the measurement instruments will enable broader applicability. The developed model of integrated communication illustrates the necessity of internal and external sustainability awareness.

Referring back to the gap discussed above, another key question concerns the existing gap between sustainability awareness and sustainability behaviour, i.e. the behavioural gap of event organisers. Reasons and strategies for minimising this gap and thus holistically increase the number of events organised sustainably will be determined through primary and secondary research. A main source for this will be the uniquely titled *Dragons of Inaction* from Gifford (2005). This paper will make use of this source when discussing potential drivers of sustainable events and how they can be realised and measured. Potential gaps between an organisation's awareness and actual behaviour can be detected and optimised. In order to maintain a strategic connection between the impact analysis of the meeting and various stakeholders, literature concerning sustainable event management will be taken into account in addition the theoretical and empirical findings. As a thorough literature review has revealed, there exist few conceptual approaches in this area; this is a key theoretical aspect of this dissertation as well.

These theoretical aims are strongly connected to the methodological aim. Significant results concerning a strategic optimisation of event impacts can be only distilled when the analysis is based on a methodical instrument. In order to ensure this is the case, critical reflection of existing measurement approaches and methods will also be emphasised in this research. Methodical recommendations for both the model and future impact analyses can be gained from the findings. Accordingly, specific measurement instruments for individual impact areas will be developed based on the inferred methodical recommendations.

In light of the theoretical and empirical findings of the dissertation, the practice-oriented aim becomes quite clear. The dissertation aims to offer stakeholders, decision-makers, event managers, association and congress organisers etc. an analytical instrument with which to identify economic, social and environmental impacts of a planned event in order to make targeted use of them in the corresponding field of work. To do that, strategic measures for optimising event impacts will be derived from the results of the empirical study. Moreover, this will help anchor the sustainable event strategy in business operations as well as internal and external communication. Applying Gifford's *Dragons of Inaction* will help determine possible barriers and, finally, attempt to minimise the gap between sustainability consciousness and behaviour. Sustainability-relevant behaviour will be identified by individual approaches, behaviours, values and the knowledge of the interviewed event participants. The individual strength of the sustainability consciousness will be identified. From here, the readiness for more sustainable behaviour (in connection with sustainable association events in this case) will be determined. The effectiveness of a cooperation of attitudes and behaviour-oriented forms of interventions such as actions or incentives for actions and perceived consequences will be determined (see Figure 23). Moreover, the status quo for the implementation of sustainability in the meetings and events industry will be identified, including potential drivers and obstacles. This will contribute to the discussion via the literature review in the second chapter.

In sum, the aim of this dissertation is to conduct a study of sustainability in the event and meetings industry in Germany in order to develop a model for sustainable event performance. It

attempts to measure and steer event management sustainability from the perspective of meeting planners and/or an association and will propose a method for converting theory into applied practice for the industry. The following research questions will demonstrate how this can be accomplished.

In recent years, international research has focused on the development of composite indicators mostly for cross-national comparison of economic, social and environmental progress in tourism and event management. These indicators have been applied in a wide variety of contexts, for example *ISO* norms, *GRI* guidelines, *APEX/ASTM* standards, *Green Globe* or *EMAS* certificates. Despite the schema developed, there is still no holistic method for integrated sustainability assessment on the association's level, as many systems tend to be too complex or rigid. To meet the current challenges of sustainability, an approach for a holistic and integrated evaluation of associations and their event management will be necessary in order to provide guidance for decision-making and strategy development.

This research develops a model for a holistic, i.e. multi-dimensional, sustainable association event approach that helps to implement, assess and optimise the sustainable performance of an event. The focus of the dissertation is a consideration of how to integrate strategies in communication, barrier reduction and indicator development in order to realise sustainable event management in a relevant and useful manner for decision-making within organisations. It concentrates on association event sustainability and will delve into a terminology discussion on sustainability within event management before moving towards developing a concept for implementing, promoting, measuring and optimising sustainability development of association events. The study structures sustainability assessment of events in terms of economic, environmental and social performance. This workflow has been chosen because it reflects what is currently the most widely accepted approach to defining sustainability (GRI, 2006), which will be discussed in detail in the following.

The overarching aim of this dissertation is to enhance the quality of sustainable association event management to a higher level of consistency. It discusses how economic, social and environmental action fields and measures can be transformed into sustainability indicators and ultimately improve on an association event's performance.

1.6 Objectives

The following objectives have been identified in order to achieve the aforementioned aims:

- Discuss the terminology and literature of sustainability and corporate social responsibility within the context of event management in the German meetings and events industry.
- Examine the status quo of acceptance, implementation and implications of sustainable event management in the meetings and events industry.
- Identify organisations' objectives (in reaction to drivers and barriers) for sustainable event management approaches in order to close the gap between awareness and behaviour.
- Determine the factors associated with effectiveness criteria (i.e. indicators) for sustainable event management.
- Use the findings to re-define and develop a new sustainability model in order to facilitate the implementation, assessment and optimisation of sustainability performance in the events management process.

1.7 Contribution of research

Jones (2014:355) predicted that “with an increasing level of understanding of sustainable development in society and in the events industry specifically, there will be a growing need to formalise the processes necessary to address the sustainability impacts of our event activities.”

All gatherings have economic, environmental and social impacts. Our goal should be to minimise the negative impacts and maximise the positive impacts as much as possible, a thought stemming from Raj and Musgraves’ definition of sustainable event management discussed in the following chapter. Successful sustainable event management is able to influence participants’ behaviour in a positive fashion, create awareness, shift clients’ demands and leave a positive legacy. To that end, potential barriers towards sustainable meeting management must be identified and broken down, which will be done in the following chapter with the help of *Dragons of Inaction* from Gifford.

This research makes several contributions. First, it provides an analysis of a broad range of academic publications and industry reports connected to event evaluation to identify the terminology and status quo of sustainable event management operations and reporting in the meetings industry.

Secondly, it identifies indicators seen by events industry experts as most relevant for sustainable event management and uses them to develop a model for implementing and measuring sustainability performance for the meetings industry. The potential extrapolation of an existing framework such as the conventional scorecard to a sustainable one is not entirely new, as can be seen in the manufacturing industry. However, its application to the service industry, in this case the meetings industry, would indeed be new. As previously mentioned, systems and instruments that reflect ecological and social issues do exist, but they are rarely connected to financial perspectives or the general management system, despite the fact that they depend on and influence each other. Usually each individual perspective is handled by different departments without any exchange of information, meaning no interdependencies and impacts are highlighted or evaluated. As it is balanced and integrated, it could be the right tool to add the ecological and social perspectives and transform it for the meetings industry. It covers not only financial success factors, but also soft and non-monetary ones. These are often qualitative and can result from the effect of non-market mechanisms on organisations (e.g. laws or political, stakeholder and non-governmental pressures). With this model, sustainable event management could be implemented as a strategy, measured and optimised.

The aim of this performance assessment model is to foster the multi-dimensional, holistic and integrated consideration of sustainability issues in strategy, decision-making, communication and event planning while also encouraging advancement in all three areas of sustainability. Highlighting cause-and-effect relationships instead of presenting a loose collection of indicators translates the model from performance measurement tool into a strategic management concept. Target-group-oriented communication as a fundamental part of the model helps to communicate the strategy internally and externally and can help to bridge the gap between strategic and operative planning and turn sustainability awareness into action. Furthermore, it helps to implement sustainability strategically, assess the impact and overall performance of sustainability in association events, and identify opportunities for optimising all three dimensions of sustainability. By communicating and amplifying the holistic impacts of association events for various stakeholders, e.g. the host communities and destinations or the different suppliers along the value chain, the gap between sustainability consciousness and behaviour can be diminished here, too. These values can be anchored in the association events sector and knowledge clusters

can not only be perceived as drivers of change, but also be taken seriously as economic development actors, creating engagement at that level.

Due to the comprehensive nature of this assessment and reflection process, it can improve an association's internal organisation as well, as various steps and processes are highlighted, analysed and, where possible, optimised. This integrated approach helps to anchor these values deeply in the association across all management levels and supports a narrowing of the gap between sustainability behaviour and awareness both internally and externally.

Indicators from existing global impact frameworks, certification schema, calculators and indicator systems such as Global Reporting Initiative (GRI), ISO, SIA, EIA, Sherwood, Fredline *et al.*, Wall and Behr, or Oblasser and Riediger will be built in and distributed across these focus areas. This is a viable contribution to a roadmap for how the meetings and events industry is contributing globally to the UN 2030 Agenda for Sustainable Development. Finally, this dissertation will result in a compendium of recommendations for use by industry, distilled from the results of the empiric research study and its preceding literature review.

As not-for-profits, associations already generate impact through their activities and scaling these impacts properly is challenging. Associations tend to have members of various cultural background, with even more complex influences on international events as compared to regional meetings. Association meetings can, with the right destination partnership, be a catalyst for raising public awareness on a certain issue, i.e. sustainability, in order to minimise the previously mentioned gap between sustainability awareness and behaviour. There are various approaches to measure the impacts and effects of events, but this research has designed its own pathway based on commonalities drawn from various approaches and its own empirical results.

The results of this dissertation will benefit organisations involved in organising association events such as convention bureaus, in-house event departments or professional congress organisers. The development of a broadly-based approach such as the aspired model to measure the sustainability performance of associations could provide a more holistic understanding of the impacts of the events industry. This type of assessment can contribute to the decision-making processes of buyers and sellers throughout the industry in order to operate and measure sustainable events or highlight the benefits of this approach for sceptical clients or associations, for example. Highlighting the benefits can encourage clients to implement their own events more sustainably as well, and assist in the development of an overall strategy for managing sustainable association events. Applying this approach to the events industry will bring this sector in line with future trends in the wider community, where social and environmental impacts are being measured more frequently alongside traditional financial performance (Mays 2004). Recognition and measurement of the social, environmental and economic aspects of the meetings industry will help to align them with governmental restrictions, associations' strategies and client demands. Moreover, the development of a set of measurement approaches and indicators will allow benchmarking between association events, a topic which has been lacking in event evaluation (Carlsen *et al.*, 2001).

This research study aims to close the gap between strategic and operative planning. It can help associations prepare for the future and actively influence decisions and developments by utilising sustainable meeting management as a competitive advantage as well. This is the practical implication of the study. It will be argued that sustainable event management is not an option, but an imperative that must become widespread and common. Vague definitions and a variety of labels, certifications and approaches have produced a large degree of uncertainty in the sector. Clear terminology and a strategy which facilitates the implementation and measurement of

sustainable event management are thus meaningful contributions to knowledge. Developing or adapting a model will close this gap in the literature, aid in the understanding of the processes of sustainable event management and, most importantly, demonstrate its usefulness and applicability for industry.

1.8 Outline of the thesis

The thesis comprises seven chapters. The introduction chapter forms the foundation, illustrating the research scope, aims and objectives as well as potential findings for the application of the conceptual framework. The literature review in Chapter 2 is dedicated to defining and classifying the relevant elements for the aspired model. The terminology and differences between sustainability and corporate social responsibility are also discussed to narrow down the industry to be covered. After the discussion on terminology, the definitions used in this project are introduced, which leads into a discussion on sustainability in the meetings industry. The literature review also highlights the motivation to introduce sustainable event management as well as current legislation in Germany.

Indicators and tools for measurement of social, economic and ecological impacts are examined and illustrated in Chapter 3. This approach offers a fundamental comprehension of the impact structure and is the basis for the subsequent discussion on impact analysis as a requirement for successfully measuring and optimising sustainable event management, as the preceding section demonstrated that events do not create the aspired effects without proper control and steering. The necessity of considering potential barriers and motivations for implementing sustainable event management expanded during the research process, and the *Dragons of Inaction* from Gifford were introduced and applied in response. Against this background, the necessity of event-specific impact analysis is underlined and an overview of event impact analysis is given. The evaluated phenomena and concepts in the chapter covering the literature review form the theoretical framework for the model to be developed.

In order to allow for a holistic impact evaluation of events, leading to the development of strategic measures for the impact optimisation based on the model, the fundamental basics are expanded upon with additional theoretical and empirical findings on the various impact areas of events. Thus the economic, social and ecological impacts of meetings and events are illustrated as well. The scientific examination of the specific impact areas is constructed as follows: first, theoretical principles concerning the development of impacts and its influences are discussed. This is used as a springboard for a critical discussion of the approaches currently used for analyses and methods, leading then to respective methodical recommendations for the sustainable event model as well as future impact analyses. The current scientific status quo is also shown for the individual areas of impacts. The connected evaluation of the empirical findings not only forms an important basis for the model, but also offers also a fruitful collaboration for the systematisation of the interdisciplinary event impact science.

Chapter 4 covers the methodology including research philosophy, approach, strategy, data collection methods, sampling, research and a discussion on bias and limitations. The primary research will be introduced and the results of the secondary research conducted in the literature review will be tested. Using the results of the previous chapters, applying the Delphi technique might be useful for gaining deeper insights. Research scope, design and instruments are presented here as well. This is followed in Chapter 5 by a discussion and analysis of the results, which in turn forms the basis for the development or adaption of the model, the final objective.

The findings will produce a model for the sustainable impact assessment of association events. First, the benefit of conceptual frameworks in science, especially in this specific project, will be highlighted. Secondly, a theoretical connection to the findings will be established. Besides the integration of the models developed in the preceding sections into a multi-dimensional impact measurement approach, the strategic connection to the different fields of operation as well as the optimisation process is also essential. Finally, the sustainable events performance model will be fully formed.

Chapter 6 summarises the results of the empirical studies and ties them into the theoretical, methodical and practice-oriented aims of this dissertation presented in the initial chapters. In addition to the theoretical and methodical reflection on the developed model, measures for the optimisation of the evaluated event impacts will be derived as well. Thus the aim of the thesis is fulfilled.

Finally, Chapter 7 will close with conclusions and recommendations.

1.9 Justification of method

The preceding sections clarified the industry in which the proposed study will take place and which topics will be explored. The next section will briefly discuss the chosen methods, with a more detailed discussion following in Chapter 4.

Secondary research forms the basis for this research project and occurs via a comprehensive literature review focused on the industry and the status quo of sustainability.

Primary research will take place in three different forms: expert interviews, a survey among association event participants, and a Delphi study. As event management is a highly practice-oriented field of study, the combination of theoretical and practical insights seemed a reasonable approach.

1.10 Limitations

Due to the listed benefits, the devised technique appears to be the most suitable method for achieving the purpose of this study at this stage. Nevertheless, the research strategy and the way in which it is developed have implications for the validity, generalizability, reliability, logical leaps and false assumptions regarding the confidence of data and the extent to which one can generalise it (Finn *et al.*, 2000; Saunders *et al.*, 2016; Bryman and Bell, 2003). The next section will identify sources of bias and how the researcher tried to overcome them.

The Delphi method has certain disadvantages and issues which must be taken into account, which will be discussed in more detail in Chapter 3. While the number of expert interview participants might be rather small, it must be emphasised that the Delphi analysis is qualitative in nature: having the core ideas “summarized in a short questionnaire, results [get] measurable in another way which [leads] to more validity” (Quinlan, 2011:337). Data quality issues must be considered beforehand to minimise possible bias and enable a high level of reliability and validity of the data obtained.

Moreover, it must be acknowledged that a diverse range of events are found in the association meetings and events industry such as gatherings, seminars, trainings, conferences, congresses etc. This makes a precise definition necessary for the niche this thesis aims to cover: the

proposed study will cover the association events industry in Germany. This focal point will be accompanied by examples from Europe to highlight key differences. Events have a wide range of tangible and intangible impacts which can occur before or after the meeting itself. This study will focus on short-term post-event impacts arising after a meeting has been held at a destination.

Another limitation might be that the interviewed experts all come from the researcher's existing networks. In addition, the majority might be from Germany, thus narrowing the perspective down to this one country only.

In order to recognise and account for these limitations, it is important to strive for a way to generalise the results for the broader population. Thus the results of this thesis can be considered a basis for further research.

1.11 Summary and conclusions of Chapter 1

The proposed study will explore the status quo of definitions and implementation of sustainable management in the meetings industry and aims to facilitate the process of implementing and measuring sustainable meetings management. It will focus not only on "green issues", but aims to achieve a holistic *triple bottom line approach*. This approach was first named by Elkington in 1994 and covers all three aspects of sustainability – ecological, economic and social – in a balanced manner (Rozier *et al.*, 1986). "Green meetings" tend to have a major focus on ecological aspects only. Simplicity in implementation and benefits (for example: competitive advantage) might convince meeting managers to opt for sustainable meetings management.

This thesis uses the concept of sustainable management to understand the potential for meetings to encourage civic cohesion, underpinned by the *Balanced Scorecard* (Kaplan and Norton, 1996) to ensure a sustainable strategy is implemented holistically. The Balanced Scorecard, a strategy implementation instrument, explains what has been used in a wide diversity of attitudinal change towards strategic goals. It was used most notably in financial measures (Kaplan and Norton, 1996), but was expanded into a Sustainability Balanced Scorecard in 2002 by Figge *et al.* This tool might prove relevant, as it is able to highlight interdependencies and impacts of objectives. Its application to the meetings industry is new and might be an option to not only facilitate, but also measure sustainable meetings. Its advantage lies in its ability to measure both hard and soft impacts. Moreover, there are systems and instruments that reflect ecological and social issues, but these systems are rarely connected to financial perspectives or the general management system although they depend on and influence each other. Individual perspectives are handled more often than not by different departments without any exchange. As this view can be considered too narrow, the Balanced Scorecard expanded by a sustainable approach can help the meetings industry to understand, implement and measure their impacts more efficiently.

This chapter forms the basis of the study by introducing the research problem. This was followed by a justification for the research and the planned method. The outline was highlighted and possible limitations were identified. The following paragraphs will provide a background to the study by explaining the difference between sustainability and Corporate Social Responsibility, what the meetings industry entails and why it was selected. It also contains a literature review that focuses on important definitions and concepts as mentioned previously. It concludes with a discussion on the proposed research approach, highlighting the planned methods.

2 Understanding the associations events industry

Chapter 2 presents the background of the study by introducing the differences between sustainability, corporate social responsibility and sustainable management, and discusses how the study was conceived. Additionally, the meetings and events industry is introduced and connected to the aforementioned topic of sustainability. It concludes with a discussion of event impacts and possible drivers and barriers to sustainable event management.

2.1 Introduction

Most human activities make use of resources delivered by the earth (Jones, 2010:3). In addition to emissions, consuming these resources eventually leads to significant waste, as many products are thrown away after a single use (ibid). The meetings and event industry is no exception. Ensuring that future generations will also be able to enjoy natural resources requires sustainable development (Zehrfeld and Voigt, 2013:25). This is due to the fact that natural resources, whether raw materials, water, air, soil or open spaces, are finite (ibid).

Fortunately, an increasing awareness of this topic and its importance can be observed (Köhler, 2014; Sherwood, 2007). Sustainability is recommended and essential for industry, for example efficient production (resource conservation), waste management (environmental conservation), and emission reduction. For companies in the EU with more than 500 employees it is even mandatory in form of an annual corporate social responsibility report. Indeed, the idea of sustainability is slowly but surely making headway in many areas of our lives, whether in organic grocery trends, renewed appreciation for regional and fair-trade products, or support for better working conditions.

Organised and spontaneous events are a part of the human experience. Hall (2010) notes that these are not limited solely to festive gatherings, but also private meetings and business events. Thus when looking at sustainability in tourism, other event types such as business events, meetings and conferences are thematically only a short distance away. As the tourism, events and meetings industries produces a significant portion of emissions due, for example, to forms of transport and mobility requirements for delegates, this topic in these particular areas is of special importance. According to Goldblatt (2012) and Jones (2017), the events industry is one of the major sources of waste and energy consumption as compared to other industry branches. As gatherings of humans invariably lead to resource consumption, direct impacts on the environment are unavoidable. They are not, however, irreducible. This is where sustainability in the events industry comes into play (Gibson and Wong, 2011; Goldblatt, 2012; Musgrave and Henderson, 2015; Oblasser and Riediger, 2015).

According to Hall (2010), the concept of sustainability is one of the most flourishing ones in tourism and event studies since its expansion in the mid-1980s. Today, it is considered an approach applicable to the meetings industry as well, but the literature review has revealed noticeable confusion with regard to terminology and definitions. To that end, a literature review which considers different perspectives on the concept of sustainability will first be presented in the following section before applying this concept to the meetings industry.

While the literature reveals a manifold number of definitions for the terms “sustainability”, “corporate social responsibility” (CSR) and “sustainable development” (Schreiber, 2012; Loew and Rohde, 2013; Henderson, 2013), Thomas and Wood (2014) noted that it is still a partly neglected area of research. The terminology is unwieldy and suffers from the fact that “no

formal agreement of a definition exists” (Jones, 2014:9; Carroll and Shabana, 2010), resulting in definitions and different understandings of what it entails in the meetings industry. For clarification purposes, the following paragraphs will engage in a discussion on definitions, producing finally the one definition which will be subsequently used in this dissertation.

The idea of sustainably using resources has been in constant flux since it was first introduced. But despite enjoying a complex and interdisciplinary discussion, no standardised definition of sustainability exists (Heenemann, Koch and Walter, 2013; Wolfgang, 2018). One reason for this is that our understanding and thus how we define sustainability is influenced by subjective attitudes, approaches and positions (Oblasser and Riediger, 2015; Wall and Behr, 2010). This has resulted in notable disagreement on the term (Oblasser and Riediger, 2015; Wall and Behr, 2010; Wolfgang, 2018). Nevertheless, there is both a growing awareness of and appreciation for the concept of sustainability in all areas of society, which attracts increasing numbers of new stakeholders, each with new input for the discussion (Industrie- und Handelskammer, 2015).

Mowforth and Munt (2009:18) claimed that there is a “growing concern for the environment and natural resources, though sustainability has also had increasing resonance in social and economic issues”, which is supported by Mundt (2011:19), who stated that “sustainability is being used these days in almost every context”, meaning not only the tourism and events industry, but also in economic and social policies, with select societies even implementing this term across the board. This leads to the assumption that theories of sustainability attempt to incorporate social responses to environmental and cultural issues.

We see that the confusing situation surrounding definitions is often a challenge for businesses, associations or institutions wishing to introduce a sustainability management system, establish CSR reporting or implement sustainable meetings and event management. Thus clarification of terminology is needed, a view which is also supported by Mundt (2011). The following section connects and compares the different views and tries to bring clarity to the discussion.

Dresner (2002) and Rogers *et al.* (2008), as cited in Raj and Musgrave (2009:2), claimed that sustainability “implies a link towards ecological impacts; namely, the consumption of natural resources and the deliberation of pollution and energy use, the concern for social inclusion and distribution of wealth, coupled with the economic themes of growth and longevity”. This implies an ecological focus with missing social aspects. According to Holliday *et. al* (2002) it was around 20 years ago when it became obvious that organisations and companies began realising that they often overlooked the social aspects of the concept.

In that vein, Musgrave (2011:259) stated that

“Sustainability is a changing mindset from plenitude to limitation, efficiency to equity, and where management philosophers consider limitations to the world’s capacity” (Gladwin *et al.*, 1995; Dresner, 2006).

We see that sustainability requires a holistic approach and covers social, economic and environmental aspects. It focuses on moral obligations and not only on “personal and organisational self-interest” (Musgrave, 2011:259). However, several authors (Mowforth and Munt, 2009; Smith-Christensen, 2009:22; Wiemeyer, 2013:220; Grober, 2013:16) also critiqued that the terms “sustainability” and “sustainable development” are often used in meaningless ways, more akin to buzzwords than anything else. Philologists would even go so far as to call this a “defacement” of the term, mostly caused by “verbal carelessness” (Ramge, 2010:4). Moreover,

the existence of two separate “definitions” here is confusing, often resulting in communication problems, particularly in common parlance.

To Oblasser and Riediger (2015:21) and Grober (2013:16), sustainability means something stable and permanent irrespective of product or service. Its ecological, economic and social aspects are secondary. Mundt (2011:7) identified that the “the idea of sustainability needs some clarification”, as “the term sustainability may be plausible at first glance but, as Robert M. Solow, the 1987 Nobel Prize Laureate, has put it: ‘The less you know about it, the better it sounds.’” (Mundt, 2011:7). Other authors regard the revalidation of the phrase as something positive, as it shows for them the necessary change in awareness towards sustainability in society (Wiemeyer, 2013:220). These citations underline the confusion around the term.

But it must be considered that *sustainability awareness* does not ultimately result in *sustainable behaviour*. Not only the revalidation of the term can be seen as problematic: some experts view the concept of sustainability as a whole as too complex and theoretical, leading to a barrier for real results (Ramage, 2010:13). Thus practice-oriented authors prefer to concentrate on clearly defined and realistic goals instead of using a phrase “without commitment” (ibid). This issue will also be highlighted in the paragraph 2.1.1 (Table 13), covering the *Dragons of Inaction* by Gifford.

We found manifold reasons for different usages in the literature review, many of which were based in the historical development of the terms or the linguistic background of the stakeholder. The term *Corporate Social Responsibility*, for example, is understood differently in Anglo-American countries compared to continental Europe. In 2001 the European Commission defined CSR as “ecological and social procedures in business processes, products and services” (Loew and Rohde, 2013) and a “voluntary concept for companies to integrate social and environmental issues in their stakeholders’ involvement” (European Commission, 2011). In the USA and UK, however, CSR mostly denotes activities which would fall under the term “civic involvement”, or *bürgerschaftliches Engagement*, in Germany. Sometimes CSR is described as social responsibility, which can, at least in German, lead to translation errors, as the most obvious German term, *sozial*, refers to “social welfare” in most contexts. However, the EU Commission explicitly means social aspects *combined* with ecological activities. Thus “social” would not be translated as *sozial*, but *gesellschaftlich*, i.e. having to do with civic society. Thus “social responsibility” in this context should be translated in German not as *soziale Verantwortung*, i.e. a responsibility towards the social welfare of others, but as *gesellschaftliche Verantwortung*, i.e. a responsibility towards society itself (Loew and Rohde, 2013).

The modern CSR debate has been advanced largely by Carroll and Waddock (Loew and Rohde, 2013). Carroll (1991) developed four levels of corporate responsibility: economical, legal, ethical and philanthropic. These dimensions formed the basis for how CSR is understood in the United States (Loew and Rohde, 2013). Accordingly, American companies often focus more on philanthropic aspects, i.e. what they do with profit, not how they acquire it. As a result, many approaches connect CSR closely with the core business of companies.

In 2006, Porter and Kramer developed the term “strategic CSR” in response, sustained by Carroll who noted that “CSR is evolving into a core business function, central to the firm’s overall strategy and vital to its success” (Carroll, 2011:2). In other words, the focus rests on economic benefits of CSR in combination with competitive advantages. More recently, Porter and Kramer (2012) coined in contrast the term “shared value”, meaning products and services developed by companies to address social problems, producing mutual benefit for both company and society. This is closer to the continental European understanding of CSR.

Lovelock (1987) suggests in his Gaia-hypothesis that the Greeks believed already more than 2000 years ago that the Earth was able to sustain a steady-state balance. Several authors believe the roots of the concept of sustainability lie in the timber industry (Mundt, 2011; Grober, 2013; Schreiber, 2012). In 1713, Hans Carl von Carlowitz outlined a principle which echoes our modern understanding of this concept in his work *Sylvicultura Oeconomica* (Grober, 2013). He wrote that to achieve sustainable forestry “one must not fell more timber in any given period than the amount that is able to re-grow in the same period” (Loew and Rohde, 2013:5), which is essentially a core tenet of most modern definitions of sustainability: use resources responsibly today for the benefit of tomorrow’s generations. Moreover, von Carlowitz demanded the careful integration of human economy and nature in *mater natura*, cautioning that humanity must never be a cause of harm to nature. Von Carlowitz drafted the *Sustainable Triangle*, (Figure 6) consisting of environmental balance, economic security and social justice (Ramge, 2010:10). This model is better known today as the *triple bottom line* approach (Figure 3) and is seen as a precursor to the modern concept of sustainability.

Another pioneer of the timber industry, Georg Ludwig Hartig (1764-1837) summarised the components of sustainable forestry (Schretzmann *et al.*, 2006:69):

- long term: the productivity and impacts of the forest must be preserved
- social duty: society’s larger interests can lead to limited rights of use for forests
- economy: necessity of economical forest use through planned resource protection in order to achieve optimal total benefit
- responsibility: sense of responsibility towards the deeper meaning of forests for future generations.

The literature review showed that these principles of sustainability have been transferred to many other global industries since, summarised by the guiding principle “to live from the interests, not from the substance” (Spindler, 2011). However, technical and scientific progress in the meantime drove a contradictory development and innovations arising from the Industrial Revolution both simplified work and made it more productive. This led to an increased focus on growth, but without sufficient appreciation of the fact that resources were finite (Grunwald and Kopfmüller, 2006). Lovelock (1987) and Grober (2012) claim that its roots in many indigenous traditions and beliefs, “the core of which was the importance of living in harmony with nature and society” (Mebratu, 1998).

The European Commission re-defined the concept of corporate social responsibility (CSR) in 2011 as follows: “A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis.” This updated definition shows in the eyes of the European Commission companies are responsible for their impacts, whether social, ecological or ethical, on society. Companies should introduce systems to detect, prevent and reduce negative impacts. The explicit reference to the voluntary nature of CSR is an important fact to consider, as it can lead to low acceptance for new regulations according to authors such as Grober, Loew and Rohde or Figge *et al.*

In comparison, CSR is defined in the ISO 26000 norm from 2010 as:

“Responsibility of an organisation for the impacts of their decisions and activities on society and the environment through transparent and ethical behaviour that

- promotes sustainable development including health and common welfare
- takes care of the expectations of all stakeholders
- follows applicable laws and international standards of behaviour and

- is integrated in the whole organisation” (ISO, 2019).

Binding regulations and laws derive mainly from International Labour Organisations (ILO) or separate environmental forces, but not for sustainable management or CSR specifically. As a result, the EU and ISO definitions reveal that maintaining of regulations is a requirement for CSR. Jones adds (2014:15) that “social responsibility is the lens through which an organisation manages what has traditionally been called the triple bottom line.” This echoes aspects of the European Commission’s definition (2011) that companies do indeed have a responsibility for their impact on society. More: this responsibility includes a company’s impact on both society and the environment as well as the contributions it makes towards sustainable development.

The previous sections have shown that the terms sustainability, sustainability development and corporate social responsibility are often used synonymously and sometimes incorrectly in the everyday business contexts (Loew and Rohde, 2013; Grober, 2013), which corroborates the aforementioned views of Mowforth and Munt (2009) and Range (2010:3) that these concepts are becoming mere buzzwords. Reasons for that are according to Martinuzzi (2012) also the different and various understandings of sustainability and CSR. Mundt adds (2011:8) that the “diffusion of the original principle with social features ultimately [leads] to the commingling of ‘sustainability’ with concepts of ‘corporate social responsibility’ to the point of even regularly referring to CSR statements now as ‘sustainability reports’”, a view shared by Czymmek *et al.* (2009:242). This is a confusing shift from a focus on ecological issues to more complex and less specific issues. An understanding of sustainability management which also includes economic aspects may play a role, as CSR definitions encompass ecological and social aspects only. In contrast, Mair and Jago (2009:81) claimed that a “closer inspection of the environmental responsibility dimension shows that it refers to the concern a firm has for its social obligations” and therefore “would perhaps be better termed the presence of a corporate social responsibility policy, which has been identified in a number of other studies such as that by Williamson *et al.*” (2006).

However, neither in the EU’s CSR definition nor in the ISO norm is the term “management” used, but rather the phrases “method wherewith the social and ecological aspects in the operational management of the core strategy are implemented” (EU) and the “transparent and ethical behaviour which adds to the sustainable development and which is integrated in the overall company’s aim and stakeholder involvement” (ISO 26000), respectively. This is confusing as both documents often use terms such as “environmental management”, “risk management” and “supply chain management”. This might be due to the ongoing efforts of economic associations to supress an auditable management norm.”

In contrast, Weaver, (2008:14) links the theory of sustainable development back to the 1983 document *Our Common Future* (the “Brundtland Report”), where it was defined as “development that meets the needs of the present without comprising the ability of future generations to meet their own needs” (WCED, 1987:43). This is likely the most commonly cited definition within today’s comprehensive body of literature on sustainability and underlines that the economic, environmental, political and social developments that companies and organisations must consider (Moderer *et al.*, 2012:188). This reflects the original concept of the *Sustainability Triangle* of von Carlowitz. In the years after the report was published, the UN established the IPCC in 1988 to investigate a related issue of concern: global warming (Case, 2013:136).

The Brundtland Report contains two key views:

- “The concept of needs, in particular the essential needs of the world’s poor, to which overriding priority should be given; and

- The idea of limitations imposed by the state of technology and social organisation on the environment's ability to meet present and future needs" (WCED, 1987:43).

These views motivated decision-makers in the 1983 UN summit on the environment to deliberate on this emerging topic and issue the *Our Common Future* report, authored by Gro Harlem Brundtland (WCED, 1987). This was the start of a long-running series of regular political summits focused on the progress of sustainable development.

According to Johnston and Tyrell (in Woodside and Martin, 2008:472), this definition suggests "relatively undisputed social goals, and an ability to agree on politics that meet, for example, the needs of the present." Moreover, sustainable development is about global, cross-border and cross-generational equity and endurance (WCED, 1987). The report goes on to say:

"A world in which poverty and inequity are endemic will always be prone to ecological and other crises. Sustainable development requires meeting the basic needs of all and extending to all the opportunity to satisfy their aspirations for a better life" (WCED, 1987).

Montiel provided further clarification in the terminology, stating (2008 in Musgrave, 2011: 260) that sustainable development is a broad framework due to its concept of the *triple bottom line approach*, which is ethically justified due to its strategic approach. Montiel (2008), defines sustainable development as an "ethical concept for institutional issues; a concept related to community and society, whereas at the corporate level, sustainable development is seen as CSR" (Montiel, 2008:126).

The term *sustainable development* itself was first used in the *World Conservation Strategy* (International Union for Conservation of Nature, 1980), but Grober (2012) illustrates that the concept is much older (Grober, 2012). Hamberger (2013 in Mundt, 2011:8) said that sustainable development turns post-rehabilitation into prevention, and linear into systemic thinking. Sherwood (2007) as well as Weaver and Lawton (1999) list several modern publications which hone in on the topic of limits to growth and highlight emerging global environmental concerns: *Silent Spring* by Carson in 1962 (Homes, 2015:2), *The Population Bomb* by Ehrlich in 1972 and *Fundamentals of Ecology* by Odum in 1959. *Silent Spring*, written by the marine biologist Rachel Carson, is said to have contributed to the growing concern for ecological issues sparked by the infamous chemical Dichlorodiphenyltrichloroethane, better known as DDT, which has been proven to cause serious harm to nature, people and wildlife (Grober, 2013:30).

Sherwood (2007) concludes that increasing global communication has accelerated the spread of environmental issues, resulting in a state of conflict between environments and continuous development in contrast with the steady-state equilibrium described in the work on *Gaia* by Lovelock (1987). Weaver and Lawton (1999) believe that the term *sustainable development* derives from these publications, not from the Brundtland Report. But the concept of "limits of growth" is also linked to the Club of Rome report titled exactly such (Meadows *et al.*, 1972). This report predicted the end of non-renewable resources, leading from a pessimistic outlook to a discussion among economists and demanding quick action to prevent ecological catastrophe (Case, 2013:134).

The growing importance of the topic is also reflected at the national and international political level. The first ministries for environmental protection were introduced throughout Europe and different environmental programmes evolved (Grundwald and Kopfmüller, 2006). Köhler and Schneider (2016:121) note that the last 20 years have seen a discussion about the "balance

between economic prosperity and the protection of the natural environment”, which leads to more understanding for an approach that balances economic, social and environmental impacts (Köhler and Schneider, 2016:121, UNWTO/UNEP, 2005, Hunter, 2002:12).

It is clear that the definition produced by the Brundtland Commission is acknowledged by many scientists and often used as starting point for discussions and studies on the topic of sustainability (Grundwald and Kopfmüller, 2006; World Commission on Environment and Development (WCED), 1983, Holmes, 2015:3). The authors of the Brundtland Report pursue a similar approach as von Carlowitz introduced previously, placing in the foreground the notion that all future generations must be afforded the opportunity to fulfil their own needs as well. The German Federal Political Education Centre (*Bundeszentrale für politische Bildung*) gives this notion an additional key dimension, adding that all countries must align in terms of growth and prosperity in order to minimise discrepancies between countries (Pufé, 2014).

In both cases the human being and the development of the society are squarely in the focus. However, this anthropocentric approach is often criticised in the literature by authors seeking a more holistic perspective (Grundwald and Kopfmüller, 2006; Weaver, 2008, Holmes, 2015, Hall, 2012:123). But sustainable development can also be defined in another way: “Improving the quality of human life while living within the carrying capacity of supporting ecosystems” (IUCN/UNEP/WWF, 1991:10, as cited in Case, 2013:135). Another critical point is that the agreements were not legally binding, (Brand, 2013; Goell *et al.*, 2007). Often, the Brundtland Report is not considered operational (Chambliss, Slotkin, Vamosi, 2008), suggesting economic values for future generations are not feasible. Thus, sustainable development is about the improvement of the human condition and does not only emphasize economic development, but highlights the importance of a balance between economic growth and environmental protection.

Based on the original United Nations definition (WCED, 1987), sustainable development is “commonly based on the notion of human progress towards maintaining or improving standards of living without compromising the natural systems on which all life depends for survival” (Holmes, 2015:2). The Brundtland Report (WCED, 1987) as well as the results of the subsequent *United Nations Conference on Environment and Development* in Rio de Janeiro in 1992 have “revived the centuries old concept of sustainability and shaped the global discourse ever since” (Mundt, 2011:8; Jones, 2014; Gallikowski, 1999). Moreover, it is seen as one of the most important documents in the wider discussion on sustainability. Indeed, it is considered the basis for the UN conference in Rio de Janeiro (Schubert and Lang, 2005; Case, 2013, Holmes, 2015:2).

It was during this first UN conference that *Agenda 21* was developed (see Table 1): an action programme for global sustainable development. It describes over 40 chapters key measures for the sustainable use of resources and applies to both industrial and developing countries (BMU, 2001). *Agenda 21* took a sustainability concept based on the triangle from von Carlowitz and transformed it into a guiding principle of politics, motivated by the conviction that protecting earth is only possible when politics also considers economic and social aspects (Ramge, 2010:10).

The aforementioned UN environmental summit “established sustainable development as a common goal of human development for the roughly 160 countries that attended the meeting, which then manifested in the action programme *Agenda 21*” (Bowdin *et al.*, 2012:157). It documents the principles of sustainable development, shows fields of action and was signed by 182 governments (Bowdin, *et al.*, 2012:157). Although it contains no binding legislative commitment, it is considered by many to impose a strong moral obligation (*ibid*). Since then, sustainable

development has become a widely-used concept and objective in international, national, regional, and local politics.

The agenda follows the mission statement “Think Global – Act Local” and is divided into four fields, shown in Table 1:

Dimension	Field of Action
Economic and social	Reducing poverty, dynamic populations, health protection, sustainable human settlement development
Environmental, protection of resources	Combatting deforestation, protecting oceans, environmentally friendly waste management and recycling
Social	Enhancing the role of social groups that are key for implementing the agenda, e.g. children, natives, employees, communities etc.
Economic	Possibility of the realisation with regard to financial and organisational instruments such as education, international cooperation, international legal instruments etc.

Table 1: Fields of action of Agenda 21

Source: Own interpretation, inspired by United Nations 1992:1-2

Agenda 21 is an appeal for solidarity among nations to ensure worldwide sustainable development: “No nation can achieve this on its own; but together we can – in a global partnership for sustainable development” (United Nations, 1992:3). The 1992 summit in Rio was followed by the summits Rio+5 in New York in 1997, the World Summit for Sustainable Development in Johannesburg in 2002, and Rio+20 in Rio de Janeiro in 2012 (United Nations, 2015).

Since Rio in 1992 additional action plans were developed in different conferences, for instance the UN millennium goals 2000 and the Kyoto Protocol, which first regulated the decrease of greenhouse gas emissions for the first time (Grundwald and Kopfmüller, 2006; Oblasser and Riediger, 2015). The follow-up agreement to the Kyoto Protocol, the Paris Accord, entered into force in 2016. Angela Merkel, former Chancellor of Germany, underscored that these agreements are “for the sake of everyone and will create prosperity” (Bundesregierung online, 2017). But there are critical voices, too. The Danish political scientist Björn Lomborg considers the agreements full of barriers, unresolved questions and faulty approaches (Lomborg, 2017). Despite the wealth of knowledge about environmental changes and impacts, no long term measures have been taken to implement climate protection and social equality at the global level. New guidelines, regional laws and conferences are introduced on a regular basis, but resolute political action to tackle shared global challenges is still missing (Heenemann, Koch and Walter, 2013).

In November 2015 another milestone UN World Climate Conference was held in Paris. This time delegates tackled global warming, agreeing to measures intending to restrict a rise in temperature to no more than two degree Celsius (Arend, 2016). The concept of sustainable development nevertheless remains the world’s biggest challenge, as Kofi Annan, former UN Secretary, emphasised as early as 2001 (Annan, 2001, in Bowdin *et al.*, 2012:155). Accordingly, *Agenda 21* was also amended during the Paris summit to include new challenges, resulting in the updated *Agenda 2030*. It includes 17 different sustainable development goals, termed Sustainable Development Goals (SDG’s), which incorporate a variety of social, environmental and economic issues (MBZ, 2017).



Figure 1: The 17 Sustainable Development Goals of Agenda 2030

Source: MBZ, 2017

The goals of the programme are defined in more detail in the five core statements – the “five P’s” – of Agenda 2030 (United Nations, 2015). Figure 1 lists these with brief explanations, which are described in detail in Table 2:

People	We are determined to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment.
Planet	We are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.
Prosperity	We are determined to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.
Peace	We are determined to foster peaceful, just and inclusive societies which are free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development.
Partnership	We are determined to mobilize the means required to implement this Agenda through a revitalised Global Partnership for Sustainable Development, based on a spirit of strengthened global solidarity, focused in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders and all people.

Table 2: The five core statements of the SDGs

Source: United Nations, 2015:2

The SDGs are goals that represent and emphasise the importance of the livelihood of all people (United Nations, 2015). They highlight the fact that protecting the environment, nature and ecosystems are crucial for our and the planet's survival, while also reminding us that achieving these goals requires systematic and coordinated strategies (United Nations, 2015). The SDGs do not intend to disregard the importance of economic development. In order for the world to live with peace and prosperity, however, economic development that leads to prosperity is a prerequisite for all humans, not just select nations. In all developmental processes, securing

sustainable sources of energy and energy efficiency are considered indispensable for achieving success. At the same time, managing and solving the environmental complications and destruction that can arise from energy use must become important priorities if we wish to reach sustainable solutions (United Nations, 2015).

Finally, peace is another key aspect of development in *Agenda 2030*. Conflicts, terrorism and other forms of difficulties are threats to peace around the world and weak(end) institutions can become the targets for those who threaten peace around the world (United Nations, 2015).

However, the utility of these non-binding agreements has been proven to help aim and operationalise the concept and bring about more macro-economic, political and social changes. This was one of the most important challenges discussed at the “Ten years after Rio” UN conference in Johannesburg in 2002. In the discussion on sustainable development, it “[became] obvious that to understand and to operationalise sustainable development, it is crucial to move away from literary or scientific definitions and towards a process, which recognises the diversity of perspectives” (Meppem and Gill, 1998:134); in a nutshell: “sustainable development is a process that results in the goal of sustainability” (Holmes, 2015:2).

The *Brundtland Report*, for example, has influenced the term “sustainable development” in a way that eventually led to a combination of environmental protection and development into a general guiding principle (Haas and Schlesinger, 2007:13). According to this principle and the resulting objectives, it is clear that environmental problems cannot be considered separately, but must also take economic and social developments into account (ibid).

In summation, we reasoned that the general understanding of sustainable development comprises two important dimensions: the notion of development (to improve) and sustainability (to maintain). Traditionally, it is defined as the balance between environmental, economic, and social aspects of development (Goodland and Daly, 1996), which links back to the *triple bottom line approach*. It fundamentally differs from other macro theories and development approaches in that current actions to improve quality of life should not harm the environment for future generations. This eventually led to an expansion of the theory akin to the *triple bottom line approach* (Elkington, 1997; Crane and Matten, 2004:24) which incorporates a balanced approach vis-à-vis economic, social and environmental impacts (Rozier *et al.*, 2011, Jonker, Stark, Tewes, 2011:7; Musgrave and Raj, 2009:2). This first occurred in 1997 with the EU’s Treaty of Amsterdam (Oblasser and Riediger, 2015).

Thus, sustainability is not only defined through the preservation and conscious use of the environment in an ecological way, but also through social and economic dimensions (Große-Ophoff, 2016). In order to offer a holistic view of the different definitions of sustainability, economic aspects must be taken into consideration as well. In the current research sustainability is evaluated from a different perspective, as the aim of sustainable actions is for organisations/companies to generate profit while respecting environment and society, not to funnel these profits into social or environmental projects (Pufé, 2014).

Dresner (2002) and Rogers *et al.*, (2008) as cited in Raj and Musgrave (2009:2) mentioned that “sustainability is often referred to as sustainable development and frequently adopts a discourse of social, environmental and economic parity between developing and developed countries.” In contrast, Zink (2007, in Musgrave, 2011:259) suggested using the phrase CSR as a “social strand of the sustainable development concept, whereby CSR is focused especially on organisation activities, and the consideration and realisation of stakeholder expectations within national society and the local community.”

Köhler and Schneider (2016:122) prefer the definition from Butler on sustainable tourism (1999), which sees natural capital as fundamental for all economic and social actions, “natural capital” being defined as complete natural power, wealth of the planet Earth, that humans are able to modify, reduce, support reproduction, but cannot create by themselves (see Hall, 2010:30). In other words, the core consideration are all non-renewable natural resources according to Köhler and Schneider (in Zanger, 2016:121).

The dimensions of the *triple bottom line approach* have been taken into consideration here as well, but economic sustainability is not perceived as economic growth, instead describing a form of tourism able to exist for an undefined period of time, and neither harms the environment nor prevents the development and well-being of other activities (Köhler and Schneider, 2016:123). This viewpoint can be transferred from sustainable tourism to events, too: as will be shown later in this chapter, events are also part of the tourism industry and share many commonalities such as arrival, departure, accommodation, catering, communication, for example.

According to Hall, “the concept of sustainability is one of the most successful ideas in tourism and event studies” (Hall, 2012:119). The concept roots in two different perspectives: the intrinsic and the extrinsic. Does the enterprise implement sustainability for its own sake or in order to support the environment and society? According to Musgrave (2011:262), sustainability is a “moral obligation that moves beyond the confines of CSR. This moral argument realigns traditional management perspectives towards what is worth pursuing (responsibility) from what works (efficiency)” (Gladwin *et al.*, 1995).

As several authors have noted the differences of the intrinsic and extrinsic motivation to sustainability, this section will briefly highlight this as well.

Raj and Musgrave (2009, as cited in Musgrave, 2011:262) stated that

“[a]stonishingly, there is an incomprehensible realisation emerging from the events industry where implementation of CSR and sustainable practices are considered without an understanding of the basic principles. What is more, there are countless opposing views that exemplify the divisive nature of sustainability” (Dresner, 2006; Ebner and Baumgartner, 2006).

Musgrave (2011:263) reported that “based upon these arguments and given the flux in business conditions and, management practices, Dyllick and Hockerts (2002), cited in Zink (2007), provide a well-grounded definition towards sustainability within the corporate world”:

“Based on the three-dimensional concept, a sustainable corporation considers not only economic but also social and environmental prerequisites and impacts of its actions as well as the interdependencies between them. Corporate sustainability requires a long-term business orientation as a basis for satisfying stakeholders’ needs now and in the future. A sustainable corporation follows the rule to live on the income from capital, not the capital itself. This rule is applied to all kinds of capital: financial, natural, human and social capital” (Dyllick and Hockerts, 2002 as cited in Zink, 2007:261).

This suggests that the concept of sustainability is inclusive, as it puts the environmental dependency of humans into moral relation with its economic and political systems. However, the needs of society seem to stand in contrast to the available resources of the earth. The following chapters will analyse whether there are successful programmes in the meetings industry to face these challenges.

Carroll and Shabana (2010) stated that despite there being no agreed-upon formal definition of CSR, there is a general consensus on the benefits of CSR for companies in terms of its ability to reduce cost and risk, gain competitive advantages, and enhance reputation and legitimacy. Moreover, it broadly seeks to achieve win-win outcomes such as improved profitability and satisfied stakeholders through synergic value creation (Farache and Perks in Font and Guix (2016)).

The preceding analysis of different definitions of sustainability, corporate social responsibility, corporate responsibility and sustainable development revealed several key statements regarding the concept of sustainability. These will be the topic of focus in the following section, which contains a critical reflection on different concepts and models in this field of study.

Reflecting on sustainability in leisure tourism, Weaver (2008:14) linked the “imperative of sustainability” to the “knowledge-based platform”, as it appears “to accommodate both the sustaining of the environment (suggesting alternative tourism) as well as continued development (suggesting mass tourism)”. He continued, noting that some authors argue this duality makes the idea of sustainable development contradictory, impractical and susceptible to appropriation by the supporters of those two different forms of tourism (Wheeler, 1994 in Weaver, 2008:14). In contrast, many supporters of sustainability regard this flexibility as an asset, as it accommodates both, development-focused sustainable and mass tourism. Hunter (2002) regarded sustainable development as an “adaptive paradigm that legitimises as weak or more anthropocentric (i.e. development-oriented) approach), as well as a strong or more bio-centric (i.e. preservation-oriented) interpretation of sustainable tourism, depending on their appropriateness for a given setting.” This is also applicable to association events.

Dyllick and Hockerts reasoned that the possibility of institutional reform and human behavioural change has dominated the goal of sustainability towards engineering “better and fairer societies” (Dyllick and Hockerts, 2002 in Musgrave, 2011:262). However, Brown (2003 in Musgrave, 2011:262) suggested that the “notion of changing consumption patterns in the developed world to allow an equal transference of consumption in developing markets is imperceptive”, whereas Brown (2003 in Musgrave, 2011:262) states that “one can consume ‘principal’ along with ‘interest’ in the short run, but in the long run it leads to bankruptcy.” One interpretation for this is that Brown is reflecting on this thought from a general perspective, i.e. to not harm or destroy the layer of human existence. Ketola (2007), however, questioned the fundamental proposition of sustainable development given the materialistic, capitalistic and utilitarian characteristic of Western society, stating that “the goal of sustainability sounds increasingly ambitious” (Ketola, 2007:422).

However, the operational implementation and usage of sustainability and corporate social responsibility in business requires clearly defined responsibilities as well as pre-defined processes, which are in fact central elements of management systems (Loew, 2005). Binding regulations and laws mainly come from International Labour Organisations (ILO) or separate environmental forces in general, not for sustainable management or CSR specifically. This is why the EU and ISO definitions discussed earlier make maintaining regulations a requirement for CSR.

Musgrave (2011:260) stated that “CSR has mainly been related to the analysis of value creation, and how to make CSR economically worthwhile to organisations” (Montiel, 2008; Stubbs and Cocklin, 2008; Banjaree, 2008). The confusing definitions for the term corporate social responsibility can also be found in the discussion around the terms sustainability and sustainable development. According to Dahlsrud (2006), this is due to political and business self-interests. Organisations and their strategies can be considered influenced by the institutional

specifications in which they take place and by the legacy reflected by the culture, history and policy of the country or region that they operate in. Therefore, these legislations will be analysed later in the literature review, too.

Porter and Kramer (2006:79) argued that the main theories of CSR are so disconnected from business strategy that they even “obscure many of the greatest opportunities for companies to benefit society.” They also stated that the required components of CSR which are often cited as moral obligations – sustainability, license to operate and reputation – position companies in opposition to society and that CSR activities are too generic and thus demand a more strategic and holistic approach within organisations. Porter and Kramer (2006) argued that enterprises must be good citizens and consider ethical values during their daily strive for success, which is meant by “moral obligation”. In other words, the aspects of the triple bottom line should be considered during commercial work, leading to satisfied and motivated stakeholders, which in turn is defined as the license to operate.

This is reflected in Banjaree’s (2008) study in which sustainable improvement is seen as an integrated approach: social, environmental and economic responsibilities should be complementary and of equal importance to ensure corporate sustainability. Many sustainability scholars are of the opinion that sustainability should not be seen as an obligation for future generations, as it is necessary to connect it to the present (and contemporary challenges) which often have far-reaching consequences for the future, too. This is in line with the definition emerging from the Brundtland Report that sustainability will seek a way to balance obligations between the present and the future. Ketola (2007, in Musgrave, 2011:259) criticised that “adding economic value to corporate social action reduces [...] moral validity.” Moreover, implementing corporate social initiatives from a “what do I get out of it”-viewpoint is a corruption of the very basis of CSR. Key to her viewpoint is a simple question: “Why should companies have the right to do harm to people and the planet?”

Although sustainable development is a dynamic process according to Furrer (2002), the literature review revealed that more progress could have been made thus far (Griethysen and Hug, 2001). According to Mundt (2011:159) this is also a result of the fact that terminology is used so vaguely, which “has been an open invitation to overload the concept in a way that [makes it] a meaningless shell for whatever one likes to understand by it.” This is underpinned by Musgrave (2009), who stated that defining sustainability within organisations is crucial for successful implementation and practice. This suggests that theories of sustainability and sustainable development have become too complex to be defined with dualistic terms like strong vs. weak, or eco-centric vs. anthropocentric perspectives. However, as scholars note, this definitional confusion is no excuse for inaction (Hall, 2010; Mundt, 2011; Raj and Musgrave, 2009; Schreiber, 2012).

To that end, several authors developed various models, each with a different aspect of sustainability in the focus. Economic models suggest sustaining opportunities, often in the form of money. Solow (1993:183) suggested that “sustainability is an investment problem, in which one must use returns from the use of natural resources to create new opportunities of equal or greater value.” Taking social or ecological issues into consideration might decrease revenue and therefore undermine a company’s commitment to sustainability. Moreover, it can be argued that these discussions are relegated to “first-world problems”, as developing countries are grappling with other challenges such as poverty, diseases or systemic corruption.

The literature review lead to the belief that the future of human society depends on the speed and effectiveness with which the world responds to these issues. Yet only a “small fraction of the world’s population is actively concerned with understanding these problems or seeking their

solutions” (Meadows *et al.*, 1972:17). But again, facing these challenges is no excuse for German associations, agencies or institutions not to implement sustainable event management practices.

In their study about the measurement of sustainability in the meetings industry, Thomas and Wood (2014) identified an increasing number of publications in this sector, but concluded that it still is a somewhat neglected area of research. The lack of scientific and business research might be another barrier to introducing sustainable event management practices.

Thus, discussions on the topic of sustainability aspire to reveal connections not only among stakeholders, but, more generally, among socially and environmentally connected series of global responsibilities. The eco-centric and anthropocentric views reflect critical points as well. Human survival depends in large part on the environment as there is only one planet Earth to live on which therefore needs to be protected.

Sustainability in organisations might be more affected by external forces due to the specific sustainability orientation at the macro level (Fowler and Hope, 2007). These influences might be:

- Legal/institutional – laws, human rights, etc.
- Technological – new technologies
- Market – suppliers, competitors, customers, trends
- Societal – NGO’s, society
- Cultural – attitudes, behaviour
- Environmental – nature, availability of resources

Here we see that not only the concept of sustainability incorporates challenges, but there exist external barriers, too. Consequently, the following paragraphs will highlight organisations’ objectives, driving forces and barriers to sustainable event management. First, however, the meetings industry will be clearly defined, as this forms the basis of the scope of this research. The previous discussion showed that the manifold definitions of sustainability actually resulted in a strongly interdisciplinary character, with different emphases identifiable based on the origin of the definition. Regardless of whether the origin was economic or environmental in nature, most definitions include the carefully balanced use of goods and services to ensure some type of economic or ecological harmony.

In summary, the literature revealed several overlapping aspects in the definition approaches:

- sustainability is always aligned towards a specific time frame: the present and the future;
- resources, material and immaterial goods, ecological and economic balance must be protected, especially if non-renewable; and
- the continued existence of the things/circumstances in question must be ensured in both the short and long term.

Thus sustainability can be understood as a combination of ecological, economic and social action, which aims for comparable or even improved quality of life for present and future generations by consuming resources carefully, consciously and protectively. Carnau (2011:149) stated that the concept of sustainability is less about the precise definition, but more about the

“identification of those values which should be protected and about the combination of the time and spatial levels considered in a sustainability strategy. The basic principle can therefore be seen as the simple insight that a system is sustainable as soon as it

survives and is continuous in the long-term. Measures have to be taken on an individual level.”

The scientific discussion surrounding the term “sustainability” has produced several models which were briefly discussed above and will be examined in greater detail shortly. Sustainability is reflected from different angles depending on the specific model. At the same time, however, various scholars such as Reidel (2010:97), Holzbaur (2016) and Oblasser and Riediger (2015) believe that sustainability is a trendy loanword, pejorative term and self-praise all wrapped into one.

In 1997 the European Union formulated the *Model of Three Pillars* in their Treaty of Amsterdam (Spindler, 2011), referenced on page eleven. In this model, sustainability includes not only the natural legacy, but also economic or social services such as democratic structures and the fair distribution of income.

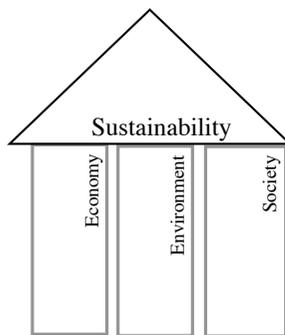


Figure 2: Model of the Three Pillars

Source: Corsten et al., 2002:2

The *Model of the Three Pillars* is one of the most well-known models incorporating the three dimensions of sustainability and roots in the sustainability triangle developed by von Carlowith in 1713. Here, society is considered, though quality of life is not explicitly taken into account. It shows a holistic approach in which the environment, society and the economy represent the three equally important pillars, forming the foundation of sustainability (Große-Ophoff, 2016).

The Environment pillar encompasses human actions which are direct interventions in environmental systems. In this area, the protection of human beings as well as the preservation of functions and natural features of global environmental systems are equally important goals (Brand and Jochum, 2000).

The Society pillar encompasses justice and equality (Raj and Musgrave, 2009). Some authors also attribute cultural aspects to this pillar as well (Jones, 2018). It is based on the assumption that social misery will have a negative impact on the other two pillars, thus destabilising the concept of sustainability as a whole (Raj and Musgrave, 2009). Achieving and safeguarding global social stability is therefore principle aim of this pillar (Brand and Jochum, 2000).

The third pillar is Economy at both an individual and societal level. Economic success and stability must be ensured permanently to preserve the livelihood and prosperity of humans (Raj and Musgrave, 2009). While all three pillars are dependent on and accountable to each other (Große-Ophoff, 2016), Raj and Musgrave (2009) note that the social aspect is often neglected

in practice, as the more polarising principles of ecological and economic sustainability garnish more attention.

The definitions of sustainability put forth by the Sustainable Development Council of Germany (*Rat für Nachhaltige Entwicklung*, 2018), the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (*Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit* (BMU), 2014) the approaches of the Brundtland Commission and the *triple bottom line* model manage to connect differing perspectives and complex ecological, social and economic considerations in the pursuit of the lofty goal of leaving behind an intact environment for future generations. The BMU (2014) underlines in particular the complex nature of the various levels of perspective as well as the necessity to analyse the topic through both local and global lenses. In addition, the arguably most important principle of the three pillars model, equal opportunity and treatment, is, according to scholars, not truly feasible in reality. Other criticism includes the fact that compromises must be found when any of the three dimensions clash and, where appropriate, decision-makers must decide how to prioritise the pillars (Raj and Musgrave, 2009; Winter, 2007).

Based on these concerns, several scholars such as Daly (1996), Doering and Ott (2004) and as early as Solow (1974) developed the model of strong and weak sustainability. Weak sustainability is based on the idea that social welfare is not generally dependent on a specific form of capital and can be maintained in most cases by substituting manufactured capital for natural capital. Strong sustainability on the other hand argues that swapping manufactured for natural capital is not easily accomplished. Arguments for strong sustainability are connected to environmental parameters such as irreversibility and uncertainty (Daly, 1996; Ott and Döring (2004); Solow, 1974).

According to this model, humanity has a pool of finite capital stock at its disposal. These are divided into two different areas: natural and manufactured (artificial) capital (Daly, 1996; Doering, 2004; Ott, 2016; Bell and Morse, 1999). Artificial capital denotes products created by humans such as knowledge or machines. Natural capital comprises all natural resources found on earth such as water, biodiversity and air (Grundwald and Kopfmüller, 2006). Strong and weak sustainability differs principally in the question of how far capital from one area can be substituted for missing capital in the other (Davies, 2013; Ott, 2016; Bell and Morse, 1999). Advocates for weak sustainability believe the most important approach is to ensure a constant sum of total capital. Natural and artificial capital are seen as ready substitutes for each other and can therefore, when dictated by situations of conflict, be weighed and exchanged against each other, ensuring sustained prosperity and wealth for a country (Doering, 2004). In strong sustainability, this type of exchange is impossible, as losses on one side cannot be compensated by other kinds of capital. In other words, each form of capital must be seen and developed as single, independent part.

However, critics have asserted that this claim is too rigid, and in the years after the model was introduced, an intermediate compromise has emerged (Grundwald and Kopfmüller, 2006). Accordingly, the degree to which capital can be substituted is dependent on the individual situation and specific circumstances. Doering and Ott do not refer to this notion as “middle” or “intermediate” sustainability, as they prefer the three pillar model which puts strong sustainability in the foreground (Doering, 2016). With the development of the model of the three columns, Doering and Ott counter the critic of the original model.

The three pillar model with its three equally-considered dimensions of environmental, economic and social sustainability (see Figure 2) gained importance only after the climate summit

in Rio de Janeiro (von Hauff, 2014:160). *Agenda 21* integrates all three of these sustainability dimensions, but emphasises the environmental pillar (United Nations, 1992:1; see Appendix A1). As this climate summit sparked a worldwide debate, the triple bottom line approach (TBL) enforced in politics (von Hauff, 2014:160). As a result, the model has seen significant development within the political sphere, but has also seen increased use among enterprises since 1994. John Elkington refers to it in the latter case as the “TBL approach” (Case, 2013:6).

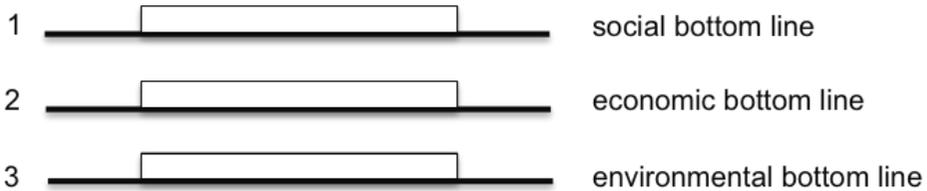


Figure 3: Triple bottom line

Source: Elkington, 1998

Society depends on the economy, and the economy depends on the global ecosystem, whose health represents the ultimate bottom line (Elkington, 1998:73). The central idea of a balanced consideration of all three columns should thus be understood as a harmonising of environmental and social sustainability with economic viability (Zukunftsrat Hamburg, 2012). In Anglophone literature, TBL is equivalent to the triple pillar model, but the differing origins must be considered (see Table 3). Triple bottom line means net profit, tabulated at the end of a profit and loss statement (Kuhn, 2008). Elkington expanded this metaphoric term by adding the dimensions environment and society in order to generate added value (ibid.), i.e. “to establish values beyond [...] profit” (Goldblatt, 2012:41). This birthed the term triple bottom line: “[c]ommitment to people, planet and profit” (ibid.) as well as “a new entrepreneurial bunch of targets” (Czynnnek *et al.*, 2009:242). Rozier *et al.* (2011) state that is “often difficult to find an exact or shared definition of TBL. It has been described as a type of reporting that “defines a company’s ultimate worth in financial, social, and environmental terms [...] [in response] to all stakeholder demands that companies take part in, be accountable for, and substantiate their membership in society” (Norman and MacDonald, 2004:245 in Rozier *et al.*, 2011).

	Model of Three Pillars	Triple Bottom Line
Origin	Politics	Corporations, private economy
Original definition	Three main aspects to sustainability, with focus on environment	Only economic considerations
Adaption	Balanced weighting	Additional dimensions
Area of application	Universal	Commercial contexts (Case, 2013:6)

Table 3: Origins of the terms Three Pillars Model and Triple Bottom Line

Source: own depiction

According to von Hauff (2014), the three pillar model is the “most used approach for politics and also for enterprises” (von Hauff, 2014:161), as it forms a pragmatic basis for the conception of sustainability strategies. The following section will delve into its three dimensions and their links. As this study set out to analyse sustainability in the scope of associations, only matching sources have been used.

According to von Hauff (2014), environmental sustainability comprises ecological capital, i.e. renewable and non-renewable resources, land and other ecological factors such as food cycles, climate systems, solar radiation and earth’s capacity to provide (von Hauff, 2014:31). Its principle aim is to conserve ecological systems (ibid); nature, which is being harmed and overused

through the extraction of raw materials, changes in land usage, pollution etc. must be preserved, as it forms the basis for all human activities (ibid). Von Hauff (2014) suggests that adaptations to production forms make up the economy (e.g. companies) and styles of consumption make up society (e.g. households). The literature mentions in this context the abstinence model as well as the development model (Corsten *et al.*, 2012:3). While the abstinence model requires “protection of resources through consumption renouncement”, the development model insists on the “continuation of the current level of production and consumption of industrial countries” (ibid). This requires certain prerequisites, such as the use of regenerative energies.

Economic sustainability, in terms of economic capital (real, knowledge-based and human capital) aims at fortifying economic strength “in order to achieve the maintenance of an aspired life quality” (von Hauff, 2014:34). Innovations, capital investments and work productivity must be supported and material (work, income, consumption) as well as immaterial livelihoods (freedom, social justice) maintained (ibid). A plan of action for the targeted adaptation of forms of production and consumption types, however, is necessary. According to von Hauff (2014), the growth theory is the foundation of economic sustainability, which indicates that an increase of per capita income can only be reached through technical development. Growth can help combat poverty in developing countries and achieve a more just division of income (ibid).

Social sustainability, in terms of social capital, aspires to “social cohesion in organisations as well as the cohesion of society in terms of humanity, liberty and justice” (von Hauff, 2014:36). Corsten *et al.* (2012) summarises social sustainability under the term “socially acceptable”, which considers the human cooperation of all stakeholders involved. Social capital is, according to von Hauff, the social structure of a society and encompasses not only the material infrastructure (properties, fixed assets and public facilities), but also social goods such as tolerance, solidarity, approaches to integration, orientation towards common welfare, and orientation towards law and justice. These social goods satisfy basic requirements, support the integration of outsiders and enable the society’s continued development (von Hauff, 2014:32). Though the social dimension was not considered as much as the other two dimensions in the literature, von Hauff noted that it is of increasing importance (ibid). Corsten *et al.*, (2012:5) notes that it is more than complex (Corsten *et al.*, 2012:5), as it is defined by many parameters, which are not and cannot be analysed in detail in this study.

As mentioned previously, the three dimensions of sustainability are interwoven, meaning no one pillar can carry the weight of the others, whether positively or negatively, without affecting the stability of the entire construct. Conflicting objectives appear to be unpreventable; Elkington even describes the three dimensions (or the triple bottom lines) as unstable: “they are an inconsistent flux due to social, political, economic and environmental pressures, cycles and conflicts” (Elkington, 1998:73).

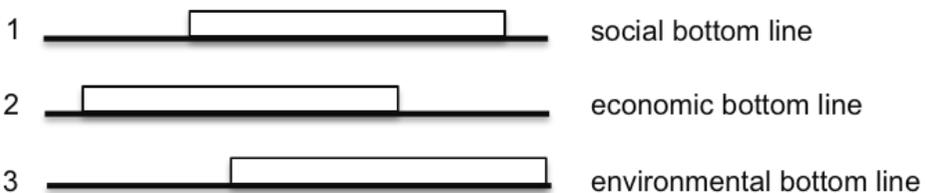


Figure 4: Instability of the three bottom lines

Source: Elkington, 1998:73

An example of this instability would be CO₂ emissions, which have a negative impact not only on earth’s atmosphere, driving global warming (environmental impact), but also on the health

and labour of current and future generations (social and economic impacts) (von Hauff, 2014:160).

Although we have seen from the literature discussion that the *triple bottom line approach* is widely accepted, critical voices can be found, especially in practice. The *Environmental Expert Advisory Board* (SRU, 2012), for example, claims that the environmental dimension should be weighted more in decision-making processes compared to the other two dimensions, as it forms the ultimate foundation for a stable economy and society (SRU, 2012:13). This correlates to the original definition of the *triple bottom line approach* of Elkington from 1994 (see Figure 3). Through the balanced approach, the model actually supports “weak sustainability” and nullifies the concept of “strong sustainability” according to critics (von Hauff, 2014:162).

As discussed earlier, weak sustainability implies that “natural capital can be substituted through real capital as long as the complete capital stock (real and natural capital) can be maintained for future generations” (von Hauff, 2014:34). Logging of a forest to build a new convention centre, for example, reduces natural capital, but at the same creates real capital (i.e. a new public facility) and social capital (i.e. new jobs). Strong sustainability in contrast implies that “natural capital has to be stable, as used natural capital usually cannot be substituted through other capital forms” (SRU, 2002:21). Another SRU publication (2002:68) discusses the loss of the orientating function of the model and calls for “a three column wish list”: “[a]rbitrary economic interests are positioned against requirements of environmental protection” (ibid) and “the social and economic pillars are seen mostly for the different social and economic political objectives” (ibid.). The missing orientation function was already mentioned indirectly, as critics in industry find the concept as too complex and therefore infeasible to implement.

Another point of criticism is the handling of goal-related conflicts, which are inevitable due to contrasting interests. To solve these conflicts, sometimes an “analysis of potential trade-offs”, is essential (von Hauff, 2014:161). However, these are often rejected in this model, as only “solutions to the advantage of all” are considered (von Hauff, 2014:161). This “by-no-means-at-all” approach is visible, for example, in the case of the plan to deepen the Elbe River in Hamburg where it is impossible to find a compromise that satisfies both sides.

Musgrave *et al.* (2009) state that the focus on goal conflicts in practice often leads to a situation in which one dimension is prioritised over the others and the social dimension is neglected right from the beginning (Musgrave *et al.*, 2009:2). This correlates with the previously mentioned insight that social sustainability, while usually not in focus, is nevertheless gaining increasing importance.

In general, it is difficult to define objectives in order to compare these dimensions. The literature reveals that weighting them is difficult, as they are based on different motives and needs of stakeholders as well as on totally different cultural, social, political or religious backgrounds depending on the country. Moreover, these factors might also be influenced by social and economic developments as well as new scientific insights. Beyond that, a lack of internationally accepted indicators also makes weighting difficult and conflicting objectives (ecological and/or social and/or economic goals with short, medium or long term horizons) for associations and enterprises wishing to implement sustainability strategies.

In order to develop a more nuanced *Model of Three Pillars* for the strong sustainability approach, Environment must have a stronger emphasis, as this aspect is generally seen as the most important column for sustainable development. To appreciate its special role in a sustainability model, the *Model of the Three Pillars* was transformed by Stahlmann to a weighted column

model. Here, the column “Environment” was replaced with “Culture” and the three supporting pillars are now constructed on a new foundation: “Natural Resources/Climate”. This puts the environment in a different, more important light, as it no longer stands among other pillars, but rather provides the stable basis for *all* pillars: the preservation of the natural environment as the foundation of the economy (Grober, 2010:129), reflected as the foundation of the model.

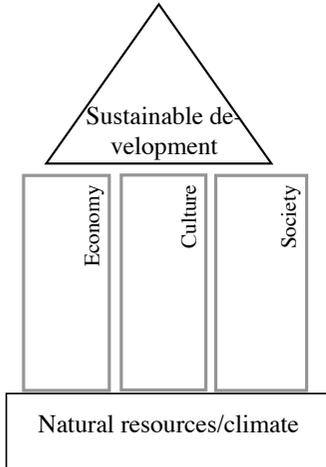


Figure 5: Weighted model of the three pillars
Source: Spindler, 2011; Stahlmann, 2008:61

Recent studies discuss another (fourth) pillar, which adds a political-institutional dimension to the model. Another view is pushed by authors such as Guenther or Schaltegger, who suggest an extension to reflect the concept of strong sustainability, i.e. that a reduction of one sort of values, for example ecological, cannot be reached by creating or compensating other values, for example economic.

According to Spindler (2011) all models and concepts should incorporate the following rules:

- Intergenerational justice: meeting the needs of existing generations without affecting the needs of future generations
- Ability to regenerate: taking only those natural resources that can be regrown and renewed
- Principle of thriftiness: using non-renewable resources only insofar as an alternative renewable resource is unavailable or they can help increase material productivity
- Absorptive capacity: not putting more emissions into natural environment than it can absorb
- Risk reduction: preventing environmental risks and creating safer products, materials and services
- Ecological-economic added value: preventing and supporting ecological potential and biodiversity

We can observe from the previous discussion that the definition of sustainability is anything but clear-cut and is indeed quite contested. In addition to the previous models, another concept of sustainability is depicted by the *Sustainability Triangle*, which also aims to create a balance between different interests and achieve sustainable development in line with *Agenda 21*. Some scholars consider this model to be identical to the *triple bottom line approach* used mainly in enterprises and finance, but not in politics.

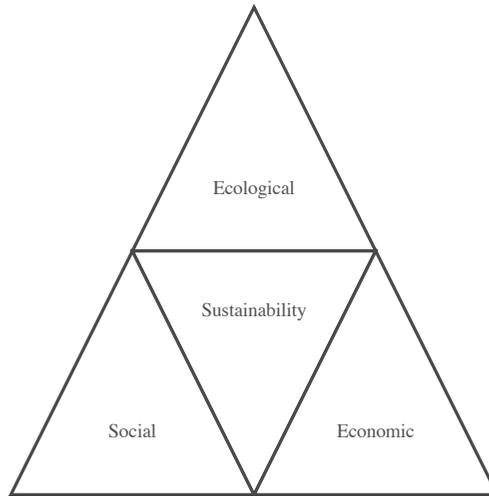


Figure 6: Sustainability triangle
 Based on Heins, 1994; Deutscher Bundestag, 1994:54

In this model, the three aspects of sustainability are balanced equally. Moreover, the connection and interdependence of the three aspects with the core concept of sustainability is also illustrated. This is similar to Figure 7, the *Integrated Sustainability Model*, with three overlapping circles overlapping sustainability in the centre. The overlapping circles represent the mutual connections, dependencies and impact each aspect has on the others.

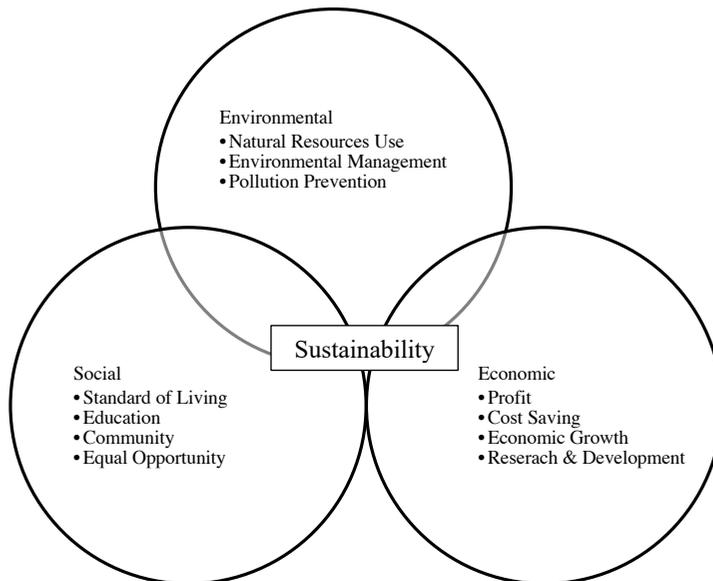


Figure 7: Integrated Sustainability Model
 Based on Große-Ophoff, 2016; Raj and Musgrave, 2009; Deutscher Bundestag, 1997:170 and Corsten et al. 2012:2

Other models such as prisms and eggs have been developed as well. The *Egg of Sustainability*, for instance, highlights the relationship between humanity and the environment as one circle inside another, like the yolk of an egg. This figure emphasises that humanity lives within the environment and that both are dependent upon one another: “[j]ust as an egg is good only if both, the white and yolk, are good, so a society is well and sustainable only if both, people and planet, are well” (Guijt, Moiseev and Prescott-Allen, 2001:136). Social and economic development can only occur if the environment provides the necessary resources: raw materials, space for new production sites and jobs (IDRC, 1997). In other words, the ecosystem must be regarded as a coordinated system compared to the triangle and prism models with their social, economic and institutional dimensions. The latter can only prosper if they adapt themselves to the limits of environmental carrying capacity. Thus, according to this model of sustainability implies the improvement of quality of life, the ecosystem, nature and the environment is the essential foundation.

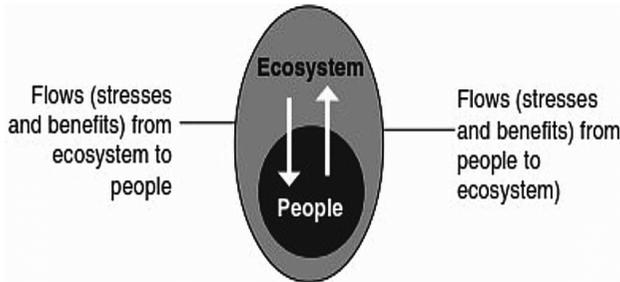


Figure 8: *Egg of Sustainability*
 Source: IDRC, 1997

The prominent German Wuppertal Institute developed its own model: the *Prism of Sustainability*. Sustainable development is defined here with the help of the dimensions economy, environment, society, and institution (Pollmann, 2005). Interlinking aspects such as care, access, democracy, and eco-efficiency show the relationship between the dimensions which can influence stakeholders.

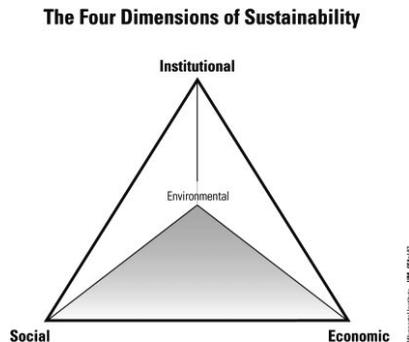


Figure 9: *The Prism of Sustainability*
 Spangenberg, Wuppertal Institute, 1998

Each dimension of the prism of sustainability incorporates “imperatives” as norms for action. Additional indicators also help to benchmark and measure progress. As with the other models, no component of the prism is independent – each one somehow impacts another. At the same time, none of the aspects can be implemented alone without taking the two adjacent ones into

consideration as well. Each of the three parts is further divided into six sub-divisions. While no quantifiable targets are set, it does offer guidelines. Closely tied into the model is the aforementioned concept of corporate social responsibility, which reframes the responsibility of institutions in terms of a sustainable development.

We can see from this the transformation from a one-dimensional, mostly economic view of things to a multi-dimensional, holistic (i.e. including social, economic, environmental aspects) impact analysis (Heede, 2008:14). This three-dimensional approach goes beyond a holistic event impact analysis to sustainable event planning and execution as well (Wall and Behr, 2010:5). The ecological sustainability dimension includes the impacts of humans on flora and fauna as well as the other parts of the ecosystem such as air, water and soil (Sloan, Legrand and Chen, 2009:8). The environmental footprint of activities and companies, generated through resource extraction, changes to natural structures or pollution via e.g. mobility emissions is massive. Kain (2000:25) criticised the prism model, arguing that “the economic dimension tends to include assets emanating from all four dimensions, thus, adding confusion to the description and analysis.”

Even though these figures are illustrative and appear rather convincing, the fact that numerous depictions exist is further proof of the contested nature of sustainability as a concept. Part of the economic sustainability dimension is maintaining a high standard of living, which from humanity’s perspective includes not only environmental considerations, but also revenue (Hauff and Kleine, 2009:18). For enterprises and meeting planners, an increasing turnover rate is one of the main aims in business (Köhler, 2014; Sloan, Legrand and Chen, 2009:8). However, economic growth is finite and reductions to already limited resources influence economic stability as well (Found *et al.*, 2006 cited in Raj and Musgrave, 2009:3). Raj and Musgrave (2009:3) illustrate too that sustainable economic development means that economic capital is maintained by simultaneously improving standard of living and economic growth. Depending on its growth, an event can be profitable and thus add to the economic development of local companies in the region where it occurs (Holmes, Hughes, Mair and Carlsen, 2015:5).

As previously mentioned, the third dimension, social sustainability, stands alongside environmental and economic sustainability. Raj and Musgrave (2009:3) illustrate that societal needs cannot be met solely through a stable ecological environment, though investments in infrastructure can improve the cohesion of a society (*ibid*). According to Hauff and Kleine (2009:20) this includes the “fair access to the social basic goods humans need for survival.” This means that the social dimension of the *triple bottom line approach* is the influence exerted by an enterprise or, in this context of this research, the event on the society in which it takes place (Sloan, Legrand and Chen, 2009:9).

Banjaree (2008, in Musgrave, 2011:262) criticised the WCED and the Brundtland Commission’s definition of sustainability as a “slogan” and goes on to suggest that “sustainable development must be managed within an organisation through an ethnocentric, capitalistic notion of managerial efficiency.” Ebner and Baumgartner (2006) on the other hand see the Brundtland definition as “a basis for corporate environmental integrity.” Dresner (2006) supports a more philosophical view of sustainable development that sits somewhere between environmentalist criticism of industrial society as a whole and support for egalitarian development and growth (Dresner, 2002). The *United States Environmental Protection Agency* (EPA) stated that sustainability means “creating and maintaining the conditions under which humans and nature can exist in productive harmony that permit fulfilling the social, economic and other requirements of future generations” (EPA. Gov., 2012 cited in Sox *et al.*, 2013:146), which is in line with the

message of the Brundtland Report that future needs must not be violated. This view is also supported by the United Nations Report (Furrer, 2002).

Henderson (2013:154) concluded with the statement that “sustainability thinking is the basic concept of sustainable development” (WCED, 1987), represented by three pillars: people, planet and profit. This approach aims for a balanced approach between ecological, social and economic aspects, with the economic aspect rooted in the traditional measurement of corporate profit (Elkington, 1997). The social aspect quantifies how socially responsible an organisation operates and the ecological aspect how environmentally responsible (Elkington, 1997). The end result is a profit and loss statement which Elkington amended to include additional ecological and social dimensions.

The *triple bottom line approach* aims to quantify the economic, social and environmental performance of a business over a certain period of time. Its development was sparked by the wide range of stakeholders each company has who found that accounting reporting is an insufficient and non-holistic approach (Elkington, 1997). This point is interesting in its own right, as it puts the *stakeholders*, not shareholders, in the foreground. Critics claim that it is nevertheless a corporate-oriented approach, meaning that social and environmental aspects might still be treated as secondary (Archel *et al.*, 2008; Brown *et al.*, 2006; Henriques, 2004; Norman and MacDonald, 2004; Zadek, 2001), while others argue that this approach considers the three aspects as separate entities instead of analysing how they influence each other (Henriques and Richardson, 2004b).

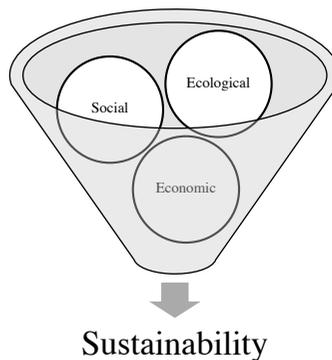


Figure 10: Intersection Model

Based on Oblasser and Riediger (2015:31) and Kleine, 2009

Figure 10 introduces a “compromise”: the *Intersection Model*. Here, the circles show their close proximity on each other, indicating a degree of flexibility in how they interact and influence each other. It illustrates that the sustainability dimensions should not be seen as inflexible and rigid columns which exist isolated next to each other, but, in contrast, are interleaved areas (compare Kleine, 2009, Oblasser and Riediger, 2015). This follows with the triple bottom line approach.

According to Hagemann and Hauff (2010:10) the natural environment is seen as of special importance, as a damaged environment can only be renewed partially. But more than that, nature, the environment and earth itself forms the foundation for all of humanity’s actions and is our common home. In 2002, Braungart and McDonough proposed the term *triple top line* for a new type of product design and business model aiming to develop products and services which sustain the natural environment, support social justice and simultaneously generate economic

value. The design principle follows natural laws and provides institutions with tools for creating wealth via the “cradle-to-cradle” concept.

To summarise, Loew and Rohde (2013) argue that CSR and sustainability can be used synonymously, but based on the discussion thus far, the author sees clear differences. Thus in this study, CSR will be considered as part of sustainability with its origin in the corporate economy, as it developed out of a moral management approach with a focus on social and societal aspects. CSR is mostly evident at the micro level, whereas sustainability mostly acts on the macro level. As described earlier, the origin of the term sustainability lies in the timber industry and it primarily referred to environmental aspects. Since Rio 1992, however, this view has shifted to a more holistic approach, i.e. the *triple bottom line approach* which considers people, planet and profit together. Accordingly, the terms “CSR” and “sustainability” should not be used interchangeably.

Scholars such as Solow (1974) and Daly (1996) propose a nuanced view of sustainability that is divided into “strong” and “weak”, with different weightings of the three aforementioned dimensions. “Strong sustainability” prioritises the preservation of ecological resources, whereas “weak sustainability” disregards obligations to sustain any particular resource through complex compensatory mechanisms, acting essentially as the general principle to not leave future generations with an overall “worse” environment than what current generations enjoy. These perspectives largely correspond to the eco-centric and anthropocentric perspectives.

Weak sustainability	Balanced sustainability	Strong sustainability
Purely anthropocentric	Eco-anthropocentric	Purely eco-centric
Harmony between growth and environment	Increased prosperity through environmental politics	Conflict between growth and environment
Natural capital is fully substitutable	Natural capital is partially substitutable	Natural capital not substitutable
Pro-growth (with moderate environmental policy)	Pro-environmentally conscious/sustainable growth	Sustainable growth not possible
Strategy: efficiency through technology, growth and markets	Strategy: ecological consumption patterns and efficiency through technology, politics and markets	Strategy: stop growth, reduce individual consumption and like policies
Conventional cost-benefit analysis	Ecologically expanded cost-benefit analysis	Negative cost-benefit analysis
Represented by: neoclassical economists (growth optimists)	Represented by: social scientists (growth optimiser)	Represented by: ecological economists, ecologists (growth pessimists)

Table 4: Weak, Balanced and Strong Sustainability

Based on: Steurer, 2001; CBA: Holmes, 2015; Solow, 1974; Daly, 1996

The substitutability of the three dimensions of sustainability in the weak approach is displayed through the *triple bottom line approach*, i.e. ecology is set on equal footing with the economic and social dimensions. In contrast, strong sustainability puts ecology ahead of the others, as it is considered the basis for all fields of development. This is evident in different sustainability models such as the one bottom approach, the pyramid model or the balanced *triple bottom line approach*. Here, substitutability of resources is possible, but only between human and real capital or between different natural resources. In other words, exchanging natural resources with human or real capital is not possible. Natural capital is thus allotted a special position with the following rules:

- Renewable resources may be used only within the extent of their ability to regenerate.

- Non-renewable resources such as fossil fuel may not be used, as they are unable to regenerate. Natural capital would experience a net decrease here.
- The capacity for environmental systems to sustain cannot be exceeded.

Daly (2007) goes even further, stating that neo-classical environmental economics favour a goal of weak sustainability, whereas ecological economists favour a goal of strong sustainability. Hall (2012) critiqued the balanced approach of the *triple bottom line approach*, suggesting instead three frames of sustainability:

- economic sustainability
- balanced sustainability
- steady-state sustainability

While the final point is rooted in ecological economics (Hall, 2012), all of them can be pictured “occurring on a continuum that stresses the significance of natural capital as the economic foundation of human society” (Hall, 2012). He goes on to state that “an economic sustainability approach is one in which sustainability is primarily seen as being ‘environmental’ and development as ‘economic’ (and to a lesser extent ‘social’) and the concept of sustainable tourism or sustainable mega-events aims to mitigate the paradox between them” (Hall, 2012:123), which aligns with Daly’s description.

The first phrase focuses on the environmental aspect of sustainability which comes along with economic development, mitigating the social perspective. According to Hall (2012), the paradox between this approach and sustainable (mega-)events should be minimised; an approach which is, according to him, “most widely identifiable in the work of extremely influential supranational organizations in international tourism policy networks such as the World Economic Forum (2009 a, c), and the WTTC (2009), along with mega-event bodies such as the International Olympic Committee and FIFA” (Hall, 2010). Hall noted that it is important to consider that “sustainable development in this case was primarily defined in terms of the physical environmental legacy of the Olympic Games rather than any social legacy” (Hall, 2012:426).

Expanding economic anthropocentrism leads to balanced sustainability. Hall (2010) considers this the dominant approach in the academic discourse on sustainability in tourism and event studies. Without an increase in resource efficiency, there will be no sustainable development (Huber 1999; Baumgartner *et al.* 2009). The term “efficiency”, however, is not without its issues, namely its normative vagueness, which plagues several other terms discussed in this chapter. This is mainly a consequence of its function as the guiding principle of industrial societies and leads to the assumption that sufficiency is a necessary prerequisite for sustainability.

On the other hand, Getz (2009:64) argued that the supposedly “new paradigm [of sustainable and responsible events] is generating increasing pressure for the application of a *triple bottom line approach* in which both the worth and impacts of planned events are evaluated with balanced measures reflecting economic, social/cultural and environmental considerations.” This aligns with the UNEP and UNWTO (2005:9) which stated that “[d]elivering sustainable development means striking a balance between economic, social and environmental sustainability”, which links back to the *triple bottom line approach* from Elkington introduced earlier. According to Hall (2012:123) “balance” in this context is about the “economic impacts of mega-events with environmental and social ones (also historically referred to as economic conservation). The event system does include economic, social and environmental elements, but these are supposedly given equal weight in system management.” He concludes that “balanced

sustainability is an extension of the economic anthropocentrism of the economic sustainability approach” (Hall, 2012:126). When it comes to measures, he adds that this is

“[...] to achieve sustainability within the balanced sustainability approach often focus on new sets of indicators, objectives, or systems. Examples, of such measures include the adoption of quality stems (usually with a focus on environmental dimensions) and *triple bottom line approaches* (Canadian Standards Association, 2010; Dolles and Soederman, 2010; Getz, 2009; Hayes, 2007; Jones, 2010; Ponsford, 2011; Raj and Musgrave, 2009), improved education and training (Dickson and Aorcodia, 2010; O’Brien and Gardiner, 2006), and greater efficiency (Jones, 2010; Smith, 2009)” (Hall, 2012:126).

In contrast, steady-state sustainability considers sustainable management practices in tourism and events from a “steady-state economic position that explicitly recognizes the extent to which economic development, including tourism, is dependent on the stock of natural capital” (Hall, 2012:127). Qualitative, not quantitative, growth is in the focus here. Daly (2008:3) defines a steady-state economy as “a constant flow of throughput at a sustainable (low) level, with population and capital stock free to adjust to whatever size can be maintained by the constant throughput beginning with depletion and ending with pollution” (Daly, 2008:3).

Hall (2010) explains that this approach focuses

“on sufficiency as well as the efficiency focus which is a hallmark of the balanced sustainability perspective. An efficiency or ‘green growth’ approach focuses on reducing throughput on a per capita/per unit basis. This is usually accomplished via technological innovations and/or improved environmental systems. However, such an approach by itself is regarded as insufficient to reduce a run-down in natural capital. Indeed, improved efficiencies may also reduce costs therefore actually increasing consumption overall. For example, larger event facilities may have lower per capita emissions but the overall extent of emissions remains high” (Hall, 2010:12)

He concludes that “only steady-state sustainability is regarded as sufficient to maintain or enhance natural capital” (Hall, 2012:119). This is illustrated and summarised in Figure 11:

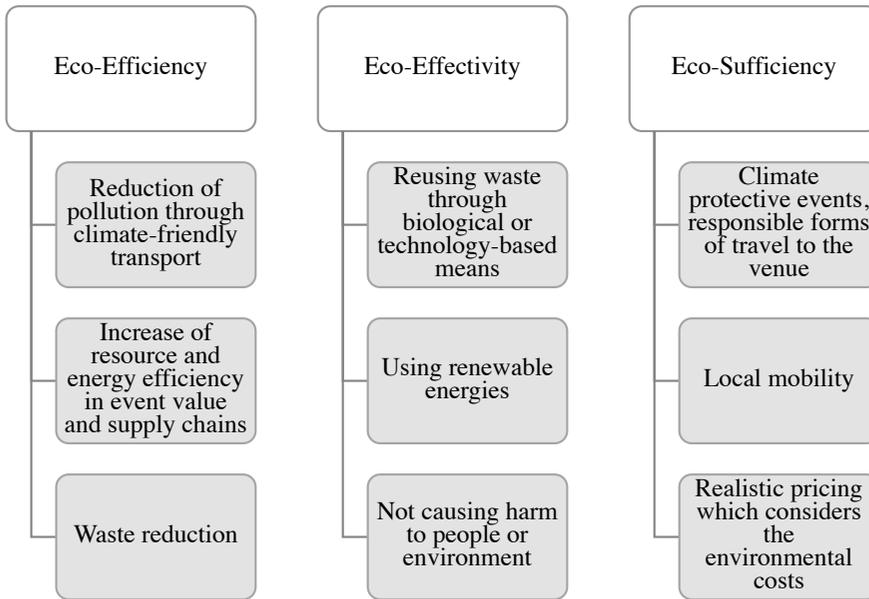


Figure 11: Components of Sustainable Events
Based on Köhler and Schneider, 2016:129

According to Hall (2010), this leads to the question of whether sustainable (event) management should follow the “principle of enhancement sustainability by providing net benefits to the environment (Valentine, 1992; Chambliss, Slotkin and Vamosi, 2008; Fennell, 1999; Köhler and Schneider, 2016:126), or whether it is advisable to maintain the status quo by following ‘steady state’ sustainability” (Chambliss, Slotkin and Vamosi (2008); Weaver and Lawton 1999; Hall, 2010). Weaver and Lawton (1999:10) summarised this as follows:

- Capital formation < capital expenditure = unsustainable development
- Capital formation = capital expenditure = steady-state sustainable development
- Capital formation > capital expenditure = restorative or enhancing sustainable development

According to Hall (2010:41), the dominating approach of eco-efficiency “aims for a more productive or efficient use of natural resources and energy” (Köhler and Schneider, 2016:123; Cramer, 2000; Young and Tilley, 2006). As these scholars note, the aim is to reduce or minimise negative impacts on the environment while also saving money. The tourism and events industry often focus here on reducing CO₂ emissions, as they represent the largest cause of environmental harm (Köhler and Schneider, 2016:124). While this leads to an economically and environmentally conscious use of resources, it neglects the harm to natural capital which occurs during steady growth. Thus an eco-efficient approach is not a long-term success strategy for sustainable development, as it does not stop natural resources from being exhausted and the environment from suffering as a result, but merely slows the process down (Köhler and Schneider, 2016:123ff.; Young and Tilley, 2006:404).

Contrary to the minimisation approach of eco-efficiency, the idea of eco-effectivity (sometimes referred to as eco-consistency) concentrates on the transformation of products as well as the connected material flow, and strives for the development of healthy and environmentally neutral products and systems (see Braungart *et al.*, 2007:133; Köhler and Schneider, 2016:125).

The concept of eco-effectivity replaces the conventional cradle-to-grave model, i.e. the reduction of the material flow, with the cyclical cradle-to-cradle model which allows for production closer to nature (Braungart *et al.*, 2007:133; Köhler and Schneider, 2016:125). For events, this could mean instituting regional value chain cycles to reduce waste, for example donating food to regional welfare organisations such as the “Tafeln²” in Germany, (Hall, 2010; Köhler and Schneider, 2016:126), or using natural waste as fertilizer, or returning packaging to suppliers for reuse. According to Hall (2010), the aim should be the creation of a value chain cycle which is conceived such that no harmful environmental impacts are created, thus enabling a sustainable connection between ecological systems and the economy along the lines of sustainable development.

Eco-sufficiency is, according to Köhler and Schneider (2016:126), geared towards “frugality and modesty” in consumption. Changing consumption patterns is essential for the sustainable management of natural resources and generational justice (Schmied *et al.*, 2009:57; Köhler and Schneider, 2016:126). Examples in tourism and events industry are the alternative tourism movement, slow tourism, reduced travel speed, regional holidays, volunteering tourism, movements directed against common consumption tendencies, conveying the idea of sufficiency in consumers and delegates and conveying how is connected to certain barriers. This will be examined in the following section.

This section has shown a discussion on the development of the terms CSR, sustainability and sustainable development and its connected models. We have seen that the topic has been put on the political agenda which impacts associations, institutions and businesses in their strategy and operations. The next paragraph introduces the concept of sustainability used here in connection to sustainable association event management.

2.2 The concept of sustainability applied here

In much of the studies on tourism and events, sustainability is seen as “environmental” and development as “economic” (and to a lesser extent “social”), with the concept of sustainability seeking to mitigate the distance between them (Jabareen, 2004 in Hall, 2010:28).

Current debates on sustainability mainly focus on reducing harm to the environment, as was shown in the literature review, but there are few studies on conserving or maintaining natural resources with respect to the desire for steady-state-thinking. However, this type of approach is gaining more attention. Contrary to the classical growth approach, it places qualitative development with a focus on quality of life and well-being front and centre (Köhler and Schneider, 2016:119; Hall, 2010:38). Economic development is considered in relation to natural capital and, according to Daly (2008:3) and Braungart *et al.* (2007:133), activities should only take place in a scope that the destination is able to cope with. We should ask ourselves what is being balanced and to whose benefit and if not the environment, i.e. nature itself, is not the level at which economic and social benefits will originate (Hall, 2010). Weaver and Lawton (1999) also critiqued the “uncertainty of this interpretation, as anthropocentric perspectives tend to emphasise the status quo of resource exploitation for the benefits of mankind, while the biocentric perspectives place the main emphasis on the natural environment itself” (Weaver and Lawton, 1999:6).

² The Tafel (“food bank”) is a non-profit organisation in Germany, which redistributes leftover food, i.e. which can no longer be used in the economic cycle and would otherwise be destroyed, to persons in need free of charge or at a drastically reduced price (Tafel, n.d.).

A moderate interpretation of sustainable development could entail a compromise and should build a feasible of a sustainable tourism and events industry, but, the literature review revealed that the tourism and events industry cannot be cleanly separated from other resource users such as agriculture and forestry. These overlaps are challenges which needs to be considered. Hall (2012:119) argues that “mega-events focused on economic or balanced sustainability are actually not sustainable at all and continue to run-down environmental capital. Instead, a steady-state approach to sustainability is required that maintains or enhances natural capital” (Köhler and Schneider, 2016:119). Scholars from tourism and event studies discussed the terms, too. Holmes (2015:3), for instance, defined sustainability as the “goal of sustainable development”, noting that it suggests an “equilibrium or condition of stability in which consumption and renewal of resources are in a balance that maintains conditions for human survival that can continue forever”, whereas Hall (2012:123) stated that “although the concept of sustainable development has been described as “the central challenge of our times (Wheeler, 2002:110), its impact on policy and governance has arguably been one of incremental rather than paradigmatic change.”

Looking back at the previous chapter, the discussion showed that there are manifold definitions of the term “sustainability”, leading to confusion surrounding the terms “sustainability”, “sustainable development” and “corporate social responsibility”. The literature review revealed that there are more than 100 definitions, but none of them are compulsory or all-embracing (Grober, 2013:20; Moderer *et al.*, 2012:187; UNESCO, 2015). Different scholars argue that this is due to the complexity and dynamic of the concept (Grober, 2013:20; Musgrave *et al.*, 2009:3; UNESCO, 2015) and the necessity of a binding definition as not seen as target-oriented (UNESCO, 2015): “Instead, sustainable development should be seen as a process of change that is heavily reliant upon local contexts, needs, and priorities” (*ibid.*). In Germany, there are several groups working on the topic of sustainability such as *Bundesverband der deutschen Industrie*, *Verband der chemischen Industrie*, environmental groups, trade unions, labour parties and government ministries (Brand, 2000, as cited in Otto, 2007:28), and nearly every group pursues its own individual definition of these terms (*ibid.*).

Instead of taking a static definition as the basis for this study, for example the most pronounced one in the Brundtland Report, the following paragraph will lay bare the core aspects considered most important for implementing sustainable event management. These aspects are drawn from various definitions and preserve the original idea and spirit of sustainability:

- Sustainability means protection (Grober, 2013:14) and is most important for African communities, for example, when building stockpiles for droughts. Sustainability is rooted in the basic human need for safety and self-preservation (*ibid.*). The idea of prevention is found not only in the forestry/agricultural definition (“do not harvest more wood than needed”), but also in the Brundtland Report’s demands justice for generations.
- Sustainability consists of equal parts ecological balance, economic security and social justice. The *Sustainability* or *Magic Triangle* from von Carlowitz, which until recent modern times formed the basis of the *Model of Three Pillars*, demands “sustainable acting” (Ramge, 2010:10), meaning that the three dimensions should be considered interconnected (Grober, 2013:21), depending on and influencing each other. Musgrave *et al.* (2009) calls it a “multi-dimensional theory” with economic, ecological and social elements.

- “[S]ustainability is the contrast to collapse. It defines what is stable, what is permanent, what is resilient, which means: immune towards the economic, ecologic and social collapse” (ibid.). This is closely connected to the core thought of corporate social responsibility, the frame which supports the implementation of sustainable events.

This underscores the fact that this dissertation focuses on a concept of “sustainability” that stands apart from “sustainable development” and the other related terms discussed earlier. Acknowledging sustainability on its own may facilitate better understanding of how it has been adapted to modify other concepts. The result is a definition of sustainability combining the three views, i.e. ecologic, social and ecological, to form a balanced approach with each aspect influencing the other. Furthermore, this definition aims to explore how this concept is used in the meetings industry, but adheres to the idea of Köhler and Schneider (in Zanger, 2016:121) that natural capital is the foundation for economic growth and social well-being.

Having defined the conceptual background of sustainability, the following section will now do the same for the meetings industry, first by introducing it, the market, its stakeholders and challenges. Moreover, concepts of sustainable event management will also be introduced, leading into the aims and objectives of this study.

2.3 The association events industry

Roy Evans, former CEO (Chief Executive Officer) of PCMA (Professional Convention Management Association), claimed that on “any given day there are more persons attending meetings and events than there are in all the college and university classrooms combined” (MacLaurin, 2002:79). The enormous scale of the global meetings industry results in a wide range of impacts on different sectors, whether economic, environmental and/or social in nature, or having to do with the public’s perception of the destination or the labour market, which underpins what Mair and Jago (2010:77) said: it is a complex and diverse sector.

Tourism belongs to the biggest global economic industries (Bunge, 2017) and includes, according to the UNWTO (1993), “all activities from persons who are travelling to destinations outside their familiar surroundings according to leisure business or other determined reasons not longer than one year without interruption.” A symbiotic connection exists between tourism and events as, on the one hand, an event can be the cause for travelling and, on the other hand, many events are inconceivable without services from the tourism industry (Rueck, 2016). Events serve as a special supply of services so that a connection develops between the event destination and the tourism infrastructure (Freyer, 2011a). From a tourism perspective, the term “event” is a planned activity for tourists and the local community with a high of appeal (Jackson, 2008). Note that a journey with an event as its main motivation is considered “event tourism” (Freyer, 2011b), which is distinctly different than the types of events which are the focus of this dissertation. These differences will be detailed shortly.

Before evaluating the status quo of sustainability in the meetings industry – a topic called a “trend” by Sox *et al.* (2013) and several industry associations such as the *German Convention Bureau e.V.* and the *ICCA*, and seen now as a necessity as noted by Smith-Christensen (2009) – this chapter will provide the background for the dissertation by highlighting first the characteristics of business tourism, i.e. especially the meetings and events industry, then identifying its elements and discussing specific statistics.

To that end, definitions used in the industry will be described first, followed by background information on the sector, industry-specific aspects of gaining knowledge about clients as well as changes and trends. This shall properly outline the industry before introducing the research study.

2.3.1 Development of the meetings and events industry

As long as there have been people, there have been meetings and gatherings (Spiller, 2002). Haunts, market or gathering places were used to discuss public issues such as hunting plans, wartime activities, negotiations for peace, the organisation of tribal celebrations or the exchange of goods (Schlenrich, 2008). Holloway *et al.* (2009:286) added that “travelling for the purpose of carrying out trade and engaging in commerce was one of the earliest types of rudimentary tourist activity undertaken by enterprising members of ancient civilisation.” The Forum in Rome is a prime example of how this ancient idea gradually evolved from beaten dirt to brick and marble. Social entertainment was considered to be important, too, and evidently took place what is shown in the citation of the “dancing, but not deciding congress” by the *Prince of Linge* (Verbeure, 2001). The Industrial Revolution, which began in Great Britain in the 1760s, created the need and desire to exchange ideas and information during fairs and meetings; the “*Crystal Palace Exhibition* that took place in Britain in 1851 is generally considered to be the first modern exhibition” (Pizam, 2005:623).

Modern meetings industry dates back to 1896, when the first convention bureau in the world was opened in Detroit. In Europe, business was not important enough to refer to it as an industry in the first half of the 20th century (Rogers, 2008). Formal meetings with political, strategic or religious purposes constitute the roots of the industry in Europe, with the *Congress of Vienna* often regarded as the first congress held in Europe. It took place 1814/1815 and was aimed at re-establishing the territorial divisions of Europe following the defeat of Napoleon I.

Later in the 19th century, universities and other academic institutions began providing rooms for gatherings to foster communication within academic circles (Spiller, 2002), but World Wars I and II suppressed further development. In the following decades, increased disposable income and leisure time, improvements in infrastructure and transport spurred tourism growth in general (Dettmer *et al.*, 1999). But according to Spiller (2002), more specific factors contributed to the start of real growth of the meetings and events industry from the 1950s onwards: increased meeting demand between the public and private sectors, growth in multinational organisations, sales techniques using promotional events, specialised technologies to communicate information to a larger audience, and the growing need for in-house training for corporations and continuing education for associations also in regional meetings. Schlenrich (2008) added that cross-border flows of trade, investment and consolidation of companies had impacts on this situation as well. After a lag period, awareness of the economic benefits began to take root and resulted in government sponsored cost incentives that enhanced the competitiveness of many international destinations as meeting and event venues.

Today, the events industry is regarded as one of the most flexible sectors of the tourism industry and is, according to Schreiber (1999:1), the “ultimate discipline in the tourism economy.” It is least responsive to price changes and helps to reduce peak-through season’s patterns (Oppermann, 2010). Corporate meetings are more likely to be cancelled due to economic constraints than international scientific or association events with long lead times, which is due to the different budgets of associations and organisations, the need for scientific exchange on a global level, and the interest in world-leading research and exchange. Obviously, as in most other sectors, the current and highly dynamic Covid-19 pandemic has far-reaching consequences for the industry. It is the most impactful challenge the industry has ever faced and

Chapter 1 as well as Chapter 7 endeavour to offer a small outlook and impact assessment for the industry. Having said that, it must be stressed again that not only this chapter, but also the preceding and following ones as well as the empirical study itself, were written and conducted well before the pandemic.

Destinations regard the hosting of international meetings and events as prestigious for the image, with global authorities keen to attract event participants to their destinations and convention bureaus worldwide competing for new association and corporate clients. Several scholars and studies support the view that the meetings industry is worth millions of euros per year (Oppermann, 2010; Ladkin and Spiller, 2000), that the number of meetings and events in recent years is increasing (ICCA, 2014), and that the sector can be considered rapidly emerging (Oppermann, 2010; Schlenrich, 2008; ICCA, 2018; Pearlman and Mollere, 2009). The growth rate has not necessarily been linear, instead exhibiting the usual peaks during times of prosperity and slowdowns in times of recession. However, as Mair and Jago (2010:77) stated, the “global economic importance of this sector is difficult to define as global figures are difficult to compare as countries that have produced figures tend to use different definitions, making aggregation and comparison difficult.” This will be discussed in more detail later.

Events like this are said to be economically attractive as they have the potential to pull attractive target groups. This is another reason why the number of international meetings, congresses and events has risen tremendously during the past decades (Price and Becker, 2002; ICCA 2018). While multinational companies were mainly at the forefront of conducting international meetings in the past, associations have been increasingly gathering overseas as well in the last 25 years (Elliott, 1996). As a result, meetings itself and the competition between venues has become more international (Oppermann, 2010), which is also sustained by political shifts, resulting in fiercer competition between meeting destinations and challenging site marketers as well as facilities and accommodation providers to manage a more multicultural clientele with highly diversified needs (Schreiber, 1999). Indeed, the cultural aspect cannot be neglected here, as not only delegates have become increasingly global, but also project teams. Here, different cultures and working attitudes must work hand in hand, which might also be a challenge in sustainable event management.

2.3.2 Classification of the meetings and events industry

In order to get a better overview of the industry and provide a richer background for discussion, the following section will identify where meetings are embedded in the tourism industry. Generally speaking, business tourism is seen as part of the tourism industry and meetings tourism is one form of business tourism (Schreiber, 1999; Schlenrich, 2008).

Schreiber (1999) suggests that there are several differences compared to the classical business tourism: “[b]usiness travel” refers to all individual business travel while “business tourism” concerns only journeys in alliance with congresses, conventions or seminars (Schreiber, 1999). According to the *British Association of Conference Destination* (BACD, 2000) and Rogers (2003), the meetings industry is a subsection of business tourism and statistics are thus as difficult to obtain as they are for business tourism. According to Holloway *et al.* (2009) travelling to attend a meeting of some kind is one of the most widespread forms of business tourism. Schreiber suggests that (2004) employees primarily travelling individually undertake business trips, whereas congress delegates belong to a form of group tourism (despite arriving and departing on their own). Rogers (2008) refers to business tourism as a year-round activity, meaning that the demand in the field is more stable and not as explicitly subject to seasonality as leisure tourism. Figure 12 shows the differences between leisure to business tourism based on the motivational factors behind travel.

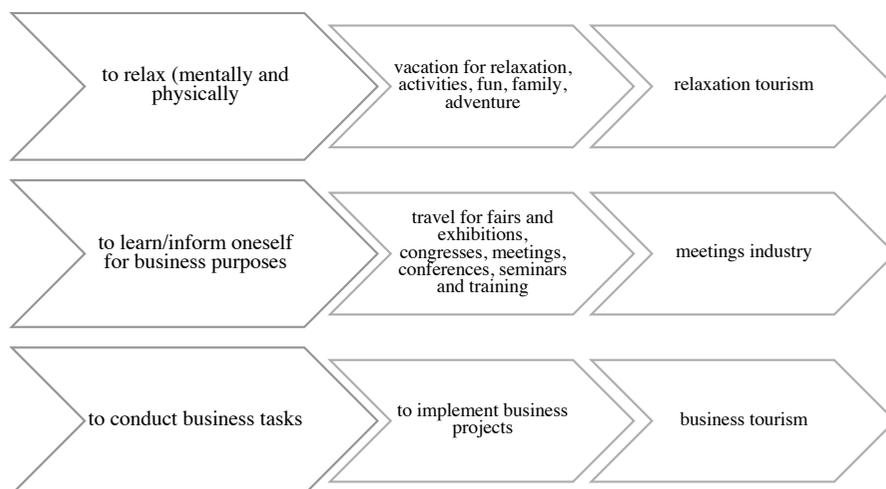


Figure 12: Classification of tourism

Source: Schreiber, 1999:14, based on Luft, 1996 and Hammer and Naumann, 2004:34

Vacations and leisure tourism are naturally driven by the motivation to relax, whereas business tourism's sole purpose is to implement business projects. The meeting and events industry can be found somewhere in between, with travel occurring in order to educate oneself for business purposes, which can be simultaneously considered a personal time investment. It forms a single genre of professional tourism in which knowledge, as well as the fact that knowledge is shared with others, can be regarded as a core objective. Thus it can be assumed that meeting and events tourism covers all trips which are connected to a traveller's occupation.

Despite sharing basic features with the leisure tourism sector, the meetings and events industry has several specific characteristics. According to UNWTO (2006:34), it can be described as

“[...] travel which involves all participants who, changing their usual activity and usual environment, come to a multilateral gathering organised around a previously established, advertised theme.”

Particularly significant in this context is the importance of the meeting's multilateral scale, its previously established topic as well as the fact that the participants contribute to the organisation, the execution as well as the development of a meeting (e.g. in terms of the scientific programme during a conference or the entertainment and education programme from scouts during a camp).

The term “event” has become embedded in various aspects of society since the 90s, e.g. media, economy and science (Köhler, 2014). It can mean occasion, happening or occurrence (Holzbaur *et al.*, 2010), but the literature does not agree on one common definition. Assessing various scholars, the term first becomes clearer when identifying different aspects of events. According to Holzbaur *et al.* (2010), events cannot be postponed, stored or improved on site. Moreover, the result is unique and dependent on the subjective perception of the participants. The preparation and planning phase is complex and crucial for success. Köhler (2014) identified on the basis of authors such as Drengner (2008) or Zanger (2001) six attributes for what constitutes an “event”, which are presented here:

Events are systematically-created happenings.	They are not random occurrences, but must be prepared thoroughly. The organiser can be a single person, a group of persons or an association.
Events are target-oriented.	They pursue pre-defined targets, even if the organisers themselves have not clearly formulated the targets.
Events are unique experiences.	They offer unique and rare experiences for participants and delegates.
Events engage several senses of participants.	The content of the events are particularly memorable.
Events create a sense of belonging, of being in group with similar interests.	A community feeling is created.
Events are mostly focused on a single theme.	Events mainly concentrate on a specific topic in science, music, sports etc. This leads to interaction and community creation.

Table 5: Characteristics of events

Based on Köhler (2014:16ff.)

It must be mentioned that volcanic or geyser eruptions, the almond blossoms or other natural occurrences are dependent on several natural and non-manageable aspects and therefore do not count as systematically-created happenings.

When comparing the approaches of Holzbaur *et al.* (2010) and Köhler (2014), common theses and various criteria for classifying events become clear. Time, content and size are not ones most often mentioned (Sakschewski and Paul, 2017). The temporal dimension can extend from short-term events lasting only a few hours to long-term events of several months (e.g. exhibitions). This includes one-time as well as regularly occurring events such as Carnival or Oktoberfest can be found (Preuß, Kurscheidt and Schütte, 2009). In terms of size, Preuß, Kurscheidt and Schütte (2009) differentiate between hallmark events, special events and mega events. Köhler (2014) expands the list to include local/community events. Local/community events tend to focus on regional target groups (e.g. communities) (Köhler, 2014) and hallmark events on a cross-regional or international audiences with the aim of increasing awareness of the event destination such as the Oktoberfest in Munich or Carnival in Rio de Janeiro (Sakschewski and Paul, 2017). In other words, both types of events focus more on the destination and less on the content.

Figure 13 categorises the content of the different types of events into four subcategories. Every subcategory can be arranged as a micro, medium or mega event. The subcategories are divided into cultural, sport, economic and socio-political events. Cultural and sport events can be found most frequently, but economic and socio-political events are becoming more relevant (Freyer, 2011b).

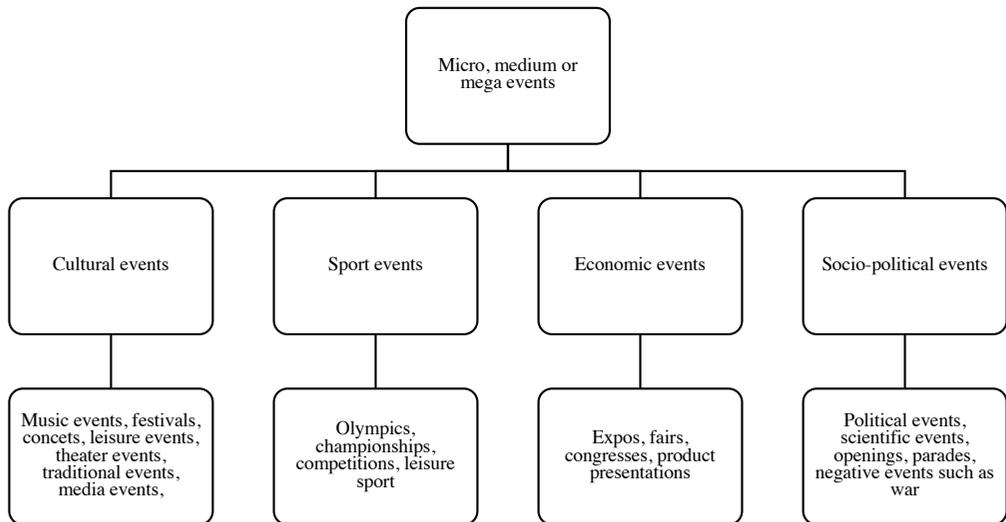


Figure 13: Typification of events according to content
Based on Freyer (1998), Köhler (2014)

Events can also be divided in terms of goals. There are direct profit-oriented events such as concerts or festivals and indirect profit-oriented events, for instance events of non-profit-organisations which aim to inform and educate (Holzbaur *et al.*, 2010).

In sum, events can be differentiated by size and content, but the theme of an event is distinctly independent from its size (Freyer, 1998). Holzbaur *et al.* (2010:7) add that “an event grows in the head of those who experiences it.”

2.3.3 The concept of the association events industry used herein

Having established a framework for the meetings and events industry on a global tourism scale, the terms used in this dissertation must be clarified. This is of special importance for this industry, as a wide range of terms, definitions, synonyms and acronyms exist and are commonly used. Due to the relatively young age of the sector as explained above, there remains much confusion with respect to accurately defined as well as commonly approved and used terminology on an industry-wide level. As a result, a multitude of definitions exist and a number of terms are used synonymously in the respective literature (Oppermann, 2010). This turns out to be one of the industry’s most basic and significant shortcomings, as it proves to be a considerable obstacle to reliable and generally applicable industry research (Rogers, 2008) and makes it difficult to compare statistics (Schlentrach, 2008). Academic research is rare and data is geographically fragmented as well as incoherent.

The most recent overviews from the academic sector are from Rogers (1998 and 2003), Lawson (2000), McCabe *et al.* (2000), Weber and Chon (2002), Weber and Ladkin (2005), Ladkin and Spiller (2000), Ladkin (2002), Spiller (2002) as well as Davidson and Cope (2003), all of whom have created greater awareness of the meetings and events industry as a whole. The literature review highlighted that academic research is predominately a product of Western Europe, the USA and Australia (*ibid*). These three regions have both mature meetings and event destinations

and have developed university disciplines in tourism and event studies as well as business and marketing in which corresponding research can flourish (ibid). However, critics of the academic research produced therein say that it is also fragmented and difficult to compare both temporally and spatially, and that research has omitted to examine the crucial link between business and leisure travel (ibid).

More recent studies have been initiated by the industry itself, likely owing to the fact that it is a rather practice-oriented industry. The paper “*Measuring the Economic Importance of the Meetings Industry – Developing a Tourism Satellite Account*” developed in 2006 by the World Tourism Organisation (UNWTO) in cooperation with ICCA, MPI (Meeting Professionals Internationals) and Reed Travel Exhibitions deserves recognition here. Beyond that, recent noteworthy studies and reports were also published by AIPC (International Association of Congress Centres, 2015), ICCA (2011), UIA (Union of International Associations, 2011), CIC (Convention Industry Council, 2011), IMEX (Exhibition for Meetings and Incentive Travel, 2011) and GCB (2011). These will be introduced in greater detail shortly.

Generally speaking, events are defined as “transitory in nature, infrequent in occurrence and limited in time” (Smith-Christensen, in Raj and Musgrave, 2009:22ff.; Getz, 1997; Stiernstrand, 1996)—all aspects which oppose the general concept of sustainability. This ambiguous context will be highlighted in a later section, after reviewing sustainability and the meetings and events industry in general. Moreover, all events need an organising body, a venue and delegates. The multi-stakeholder chain is characteristic, too, and consists of suppliers, convention bureaus, professional congress organisers, destination marketing organisations and the client itself. The single terms will be highlighted in the following paragraphs.

Figure 14 illustrates the meetings and events stakeholders, divided into government, destination, the industry itself, trade associations and educational institutions combined with local inhabitants and event participants. This underlines the complexity of the sector, its stakeholders and the connected value chain.

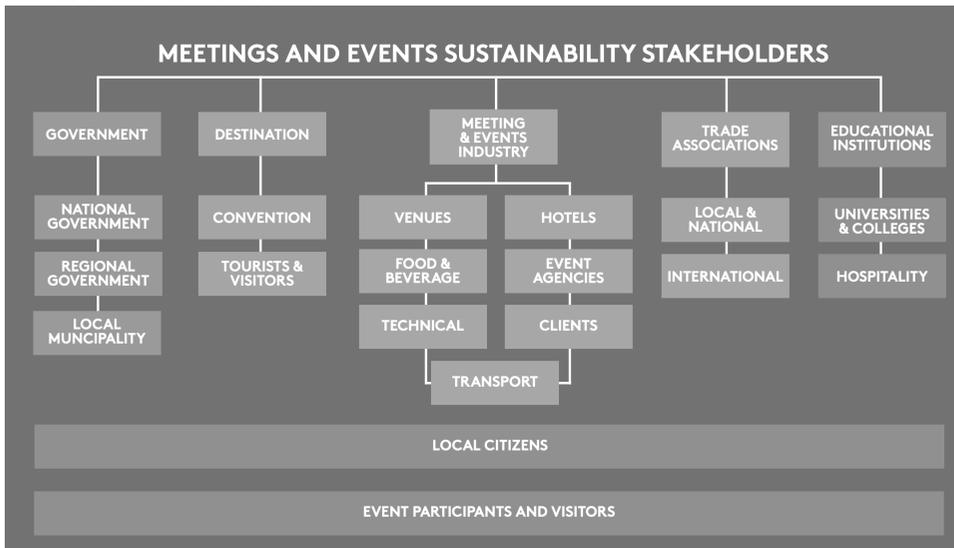


Figure 14: Meetings and events sustainability stakeholders
 Source: GDS, 2019

Holzbaur *et al.* (2010:7) also stated that an event is difficult to measure in an objective way as it is experienced and perceived subjectively by each participant. Moreover, the literature sees events as a unique service which cannot be postponed, corrected or stored, and the complexity of their preparation greatly exceeds their actual duration.

A set of definitions was jointly published by the *Convention Industry Council* (CIC) and the *Joint Meetings Industry Council* (JMIC) as the *International Meetings Industry Glossary* in 1993. Today, this publication is referred to as the *APEX Industry Glossary* (Accepted Practices Exchange) and its regularly updated versions are available online. In 2011, the CIC released a study called “*The Economic Significance of Meetings to the U.S. Economy*”, which was conducted by PricewaterhouseCoopers. As a basis for discussion, the terminology was settled first. In this CIC study, the term “meeting” refers to the “coming together of a number of people in one place, to confer or carry out a particular activity. The key purposes of meetings are to ‘motivate participants, conduct business, share ideas, and learn’” (CIC, 2011:11). This definition is accepted by the UNWTO (World Tourism Organisation), Reed Travel Exhibitions, ICCA and MPI (CIC, 2011). Differences to other definitions will be explored in the following discussion.

Other factors which complicate research are the sheer number of industry associations as well as numerous instances of renaming in the past. The geographical location often determines the preferred statistics being used as well. In Europe, the most widely-accepted statistics are published regularly by ICCA and UIA (Oppermann, 2010).

The industry generally prefers the acronym *MICE* (Mair and Jago, 2010; Düffelmeyer and Hildebrandt, 2011; Schlenrich, 2008). However, it is not obvious at first glance that the types of events referred to by this acronym – meetings, incentives, conventions and exhibitions/events – are not treated equally in the literature. Most data on the meetings industry refer to meetings and conventions only, but even these are sometimes defined and used differently (Holloway *et al.*, 2009). Although the term *MICE* is internationally accepted, the author decided not to use it, as this paper concentrates on meetings, congresses, conferences and conventions, not specifically incentives and events. Moreover, the term *MICE* does not include exhibitions and fairs, which make up one of the most important parts of the meetings industry in terms of revenue (Pearlman and Mollere, 2009); this also shows that the term is incomplete.

The term “association meetings and events industry” will be used instead to describe the industry, as this aligns better with the research topic. This term is also used by the *ICCA*, the leading association of the meetings and events industry whose statistics are used throughout this paper, as well as by the *UNWTO* and is also supported in a discussion by the National Library Board of Singapore (2009). Holloway *et al.* (2009:286) note that “as recently as 20 years ago, the expression ‘meetings industry’ was hardly ever used” in the sense of an umbrella term describing all businesses which contribute in some way to making meetings possible and ensuring they run professionally and effectively. However, Holloway *et al.* (2009) confirm that nowadays this term is widespread and firmly established.

The following section shows a discussion on terms used throughout the industry to denote different kinds of meetings. This will reveal one of the glaring problems of the industry: the lack of standardised definitions. Industry terminology is complex, yet important as highlighted above, but this same situation can also be found in various types of gatherings as well. According to Holloway *et al.* (2009) and Freyer (1998) meetings and events in general can vary enormously in size and purpose, but events that stimulate business tourism are primarily those organised around an objective linked to attendees’ professional activity. The definition of

international meetings is very important for interpreting statistical data that describe the size of the market and projected changes, but definitions vary, unfortunately.

PCMA regards an international meeting as synonymous with “any event that has participants from three or more countries” (*PCMA*, 2001). In contrast, the *International Association of Professional Congress Organizers* (*IAPCO*) in its publication “*Meeting Industry Technology*” (2000) and Colby’s “*Convention Liaison Council Manual*” (1994; Düffelmeyer and Hildebrandt, 2011:129) refers to international meetings as “meetings of an organisation with multi-national membership that is available to meet on more than one continent” (*IAPCO*, 2000). *ICCA* defines international meetings by the number of countries in which an organisation hosts its meetings. Accordingly, a sponsor’s meetings must rotate between a minimum of three different countries on a regular basis.

In contrast, *DMAI* suggests that meetings are events without exhibit components, whereas a convention has a secondary exhibit component at a minimum (*DMAI*, 2011; Schreiber, 2004). The exhibition component is mentioned for the first time here, which can also be found in the recent study published by *CIC* (2011). Moreover, *CIC* also highlights that social and recreational activities are excluded (2011).

Ladkin (2004:58) cited the *International Meetings Industry Glossary* with the following definition:

“An event used by any organisation to meet and exchange views, convey a message, open a debate or give publicity to some area of opinion on a specific issue. No tradition, continuity or periodicity is required to convene a conference. Although not generally limited in time, conferences are usually of short duration with specific objectives. Conferences are generally on a smaller scale than congresses.”

This is in contrast to *ICCA*’s requirement that congresses take place regularly. They argue further (Ladkin and Spiller (2000); Ladkin, 2004:57) that a “congress” refers to a “large group of individuals” meeting on a regular basis, lasting several days and involving simultaneous sessions mostly focused on a common issue, usually held on an annual or multiannual basis.

The word “congress” stems from the Latin word *congressus*, translated as “meeting” (Schreiber, 2004:137), linking the meetings industry historically to the ancient political debates which took place in the Roman Forum, for instance. “Conference” on the other hand originates from the medieval “conferential”, translated as “to bring together”, and the word “auditorium” has its roots in *auditorius*, or “the place to hear” (Spiller, 2002:3). From this point of view the only difference is in the number of participants: “[c]onferences are usually on a smaller scale than congresses” (Ladkin, 2002:102). However, Seeking (1991:31) defines a conference as a “large event with a hundred or thousand people, often lasting for several days and involving a social programme and exhibition with an international or national scope”, which shows that number of participants is also a vague factor.

Another confounding factor for preferred definitions seems to be origin of the speaker. For example, the expression “conference” seems to encompass both “congress” and “convention”, especially in terms of United Kingdom (UK) usage and *CIC* (2011:12) defines “congress” in a way which mirrors the term “convention” in continental European usage. These differences may not be outright problematic, but must be kept in mind when comparing different statistical sources and their data (Ladkin, 2002; *ICCA*, 2012; *UIA*, 2011).

2.4 Object of research

The objects of this research are both association events and meetings which might be organised by associations or, when outsourced, Professional Congress Organisers (PCO) on behalf of their clients (associations). Neither public events such as city or music festivals, hallmark or sporting events, nor corporate meetings, trainings or seminars are covered in this dissertation. Corporate meetings are introduced in the following paragraph merely to refine the understanding of association meetings through comparison.

2.5 Overview of the meetings and events market

Before discussing characteristics and elements of the meetings and events industry, various different market segments with their own specific characteristics should be considered first. This funnelling approach of going from broad to narrow follows the same general approach applied to this dissertation.

According to ICCA (2012:4), the market can be segmented by meeting size, the type of people who visit meetings, or by the meeting purpose, but it generally sticks to the classical separation between association and corporate meetings. From the different ways of segmentation like the type of meeting planned or the geographical area, this dissertation also sticks to the traditional classification between association and corporate events (Oppermann, 2010; Abbey and Link, 1994; Crouch and Weber, 2002; ICCA, 2012).

ICCA underlines that the main criterion for differentiation is the initiator; the variety of these is shown in Figure 15. The reason this is the main criterion is “the initiator determines what kind of meeting is organised and the kind of supplier services needed” (ICCA, 2012:12).

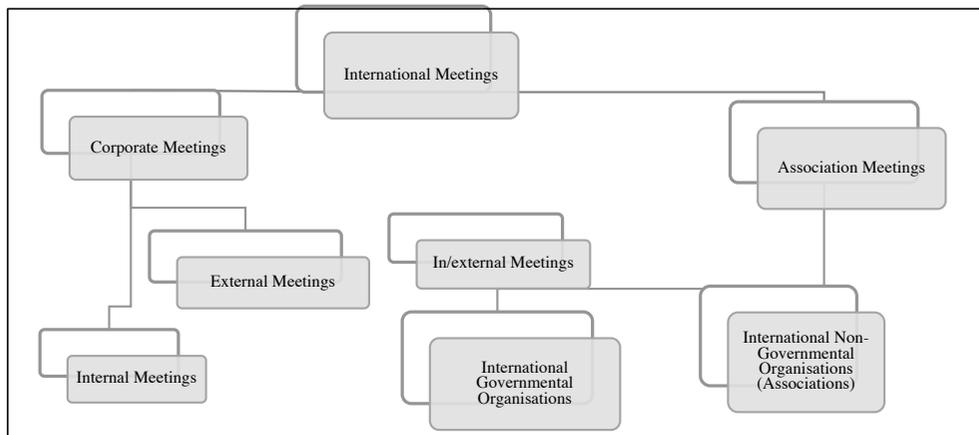


Figure 15: Initiators of meetings

Source: ICCA, 2012:12

Associations and corporations as initiators are shown on both the right and left sides of Figure 15. The largest meetings held throughout the world each year are not conducted by individual corporations, but by the enormous number of associations that exist to present and promote the interests of their members (Crouch and Weber, 2002). The focus of the paper will be on association meetings as well, which is due to ICCA’S focus on this specific market. The following

section will therefore highlight the characteristics of association meetings and explain the different initiators in greater detail.

2.5.1 Characteristics of association meetings

As previously mentioned, there are significant variations in the size, budget, duration and complexity (ICCA, 2012) of meetings. Schlenrich (2008) suggested that they can be divided into two major categories: small regional training or communication meetings, and large annual conventions that usually include educational seminars. According to Crouch and Weber (2002), the association meetings market can be divided into scientific, trade and special interest meetings. Apart from differences in each of these categories, similarities can be found in the fact that there are associations in almost every specialty area and that meetings are held on a regular basis. They rotate their destinations, which fits ICCA requirements, and rarely return to the same location twice (Schlenrich, 2008). The push to host an event often comes from the association's local counterpart. Decisions on the destination and venue are often made by the international organisation or an executive committee. Convention bureaus or conference centres at a destination will ideally approach the local counterpart, encourage, support and guide them in bidding for the chance to host a meeting (ICCA, 2012). Here, cooperations and partnerships between city governments and convention bureaus, sometimes already in cooperation with a preferred agency, are key to tailoring an attractive offer and bid (Schlenrich, 2008).

Oppermann (2010) suggested that association event planners should be regarded as tour operators because they must "sell" their congress to potential attendees, who on the other hand react like tourists with a wide choice of venues and destinations, each meeting their needs and obligations to different degrees. They generally last between four and five days and are planned two to four years in advance (Hammer und Naumann, 2004; compare Table 6).

Accompanying industry and poster exhibitions are increasingly considered a necessity, which means that bigger venue spaces are needed (ICCA, 2014). Association events must often meet budget limitations and thus depend on certain numbers of participants in order to recoup their expenses. This implies that destinations are also chosen according to the attractiveness of social programmes or pre- and post-meeting opportunities and attractions, often with accompanying family members in mind (Crouch and Weber, 2002; Oppermann, 2010).

2.5.2 Characteristics of corporate events

In the corporate business world on the other hand, the initiator is the company paying for employees to attend. Since participation is often compulsory, fewer preferences concerning the destination must be met, promotion is less important, target groups are better known and site selection factors are perceived differently overall. Corporate meetings are generally smaller than association meetings and are normally one-time meetings of a shorter duration. Around 40% are held for a single day only (Holloway *et al.*, 2009:287).

Different departments may organise different types of meetings and the buying group is smaller than with associations, which often consists of board and committees. Corporate meetings' lead time is generally less than one year and therefore much shorter than with association meetings. They often have a more local catchment area and are likely to return to the same site for the next meeting, but are held more frequently than association meetings. Corporate meetings can involve training seminars, management seminars, sales seminars, etc. (Crouch and Weber, 2002; ICCA, 2014; Oppermann, 2010). Corporate events can be "internal meetings, external meetings and in/external meetings" (ICCA 2014:4, compare Figure 16) and are driven by the

needs of individual businesses. The sectors are manifold, extending from manufacturing, to pharmaceuticals, to consumer goods (McCabe *et al.*, 2000), but it must be pointed out that these are only examples and nearly every sector and company organises its own meetings and events.

Due to their smaller size, the majority of corporate events often take place in special hotels, though they are sometimes held in dedicated conference centres, training centres, universities or the company’s own facilities as well. Due to the inherent nature of incentive events (which are sometimes, but not always corporate meetings), their venues are often unique and very high quality. With companies funding delegates’ attendance at corporate meetings, return on investment (i.e. cost and time) is a key priority. This is supported by the findings of a study from Future Watch (2011) as well.

The following table highlights the differences between association and corporate events, providing an overview of the various differences and similarities mentioned above:

Association events	Corporate events
Delegate numbers can be in the hundreds or thousands.	Delegate numbers tend to be lower – generally fewer than 100 people, usually at least a few dozen.
The decision process for choosing the destination can be long and complex, often involving a committee.	The decision process for choosing the destination is shorter and simpler, often up to one person.
Daily expenses per delegate can be moderate, as delegates are usually paying out of pocket.	Daily expenses per delegate can be higher, as the delegates’ companies are usually paying.
Can last for several days, or even a week in the case of large international association meetings.	Generally shorter, often lasting for no more than a day.
For associations, meetings represent an opportunity to make a profit, which can in turn be put towards the associations’ running expenses.	For companies, meetings represent an expenditure that must be financed from profits generated elsewhere.
Many association meetings are held in large, purpose-built meeting centres.	Many corporate meetings are held in hotel conference rooms.
The lead time for an association can be several years.	The lead time for a corporate meeting is usually much shorter than for an association meeting.
Association meetings are rarely cancelled as the by-laws of the association usually stipulate annual conferences.	Corporate meetings can be cancelled more easily, particularly in times of financial hardship for the company.
Delegates’ partners are often welcome to accompany them to association meetings, so concurrent meeting programmes for partners are often planned as well.	Delegates’ partners are rarely encouraged to attend.

Table 6: Differences between association and corporate events
 Based on: ICCA, 2014; Schlenrich, 2008; Oppermann, 2010; Crouch and Weber, 2002; Holloway *et al.*, 2009

In summary, association and corporate events can be motivated by education or training (Oppermann, 2010). According to Holloway *et al.* (2009), however, “meetings” as such are held for a wide variety of reasons: social meetings, including all group meetings, are held primarily for social interaction. There are also military and educational events, with the latter ones generally attended by lecturers who gather to share research. Religious meetings are some of the largest meetings organised. Fraternal meetings include meetings of fraternities, sororities and similar organisations like university alumni reunions. These other types of meetings are encapsulated in the American acronym *SMERF* (social, military, educational, religious and

fraternal meetings), which is rarely used in Europe (Holloway *et al.*, 2009; Schlenrich, 2008). Nevertheless, it demonstrates that there are many more types of meetings than business or academic meetings. Other considerations and categories, for example type of meeting planned, geographical area, or initiators and organisers, were discussed in the figures above.

2.6 Elements of the meetings and events industry

The meetings and events industry is complex due to a number of elements (Ladkin, 2004; Spiller, 2002; Mair and Jago, 2010) which will be identified in the next part of this chapter.

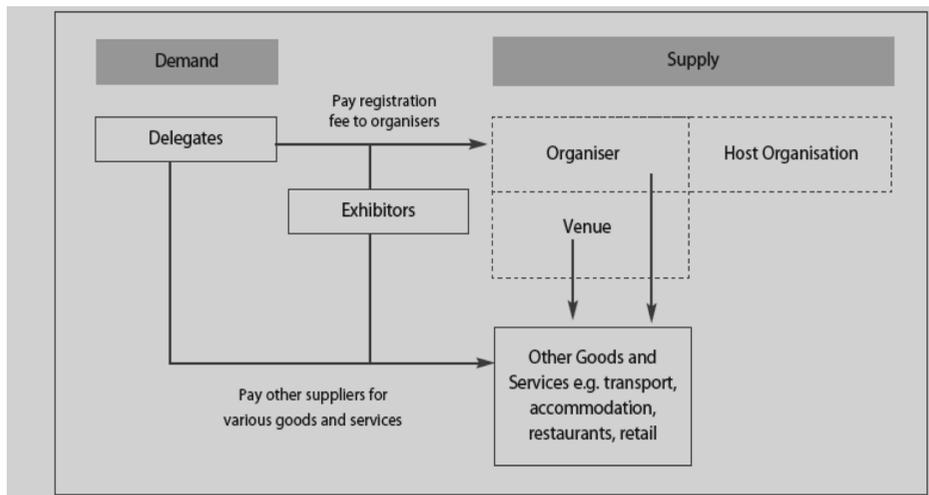


Figure 16: Elements of the meetings industry

Source: UNWTO, 2006:12

The sector has two broad dimensions as shown in Figure 16: the demand and the supply side. The Tourism Satellite Account (TSA) defines the demand side as the delegates and buyers who purchase a product (Ladkin, 2004) and the supply side comprises the organiser, the venue and the host organisation. Differentiation between the different types of demand is based upon a set of characteristics, specific to the respective buyer segment. Davidson and Cope (2003) define these as the size of the respective meeting, its length, the spending involved, the location and destination of the meeting, and the decision process.

Opposite the very diverse demand side of the market is a complex network of suppliers. The dotted lines in Figure 16 “indicate that in some cases the host organisation acts as the organiser, and in some cases, it is the venue who will act as the organiser” (UNWTO, 2006:12). Naturally, this has implications for data collection and evaluation. The supply side is focused on venues, ranging from purpose-built venues to hotels, as well as services needed to implement a meeting such as “audio-visuals, telecommunications, translators and conference interpreters, food and beverage providers as well as decorators and exhibition contractors” (Düffelmeyer and Hildebrandt, 2011:133). ICCA has shown (2014:39) that the most preferred venues are meeting facilities in hotels, which reflects the budgetary constraints found with smaller meetings. Bigger events are hosted in specially built facilities like conference and exhibition centres which can be found in larger cities. Remarkably, 21.2% of meetings take place in universities. According to Davidson and Cope (2003), the location decision is an essential part of the planning and

organisation process for any meeting and a crucial factor for success. Ladkin (2004) notes that there is a growing demand for unusual and unknown venues, which will result in demands for greater variety in the future.

Besides the demands of corporations and associations, Rogers (2008) pinpoints two additional segments of buyers. One is the public sector buyer, comprising government bodies and authorities at local, regional and national levels, intergovernmental structures such as the European Union, as well as educational institutions (Rogers, 2008). This segment is frequently incorporated into association demand, as their needs are generally rather similar. The other is the entrepreneurial buyer, who acts as a meetings supplier and as such initiates and organises the respective meeting (ibid). The segmentation shown in Figure 16 is similar to the depiction in Table 6 from ICCA (2014).

Element	Divisions
Sector	Meetings, incentives, conferences, exhibitions
Buyers	Corporate, association, public sector
Suppliers	Destinations (the facilities at the location), venues (hotels, purpose-built convention centres, unusual venues) and service providers, destination management companies
Agencies and intermediaries	Professional conference/congress organisers and venue-scouting agencies
Others	Trade associations, national tourist associations, educational institutions, catering services, interpreting, video services, and merchandising

Table 7: Elements of the meetings and events industry

Source: Ladkin, 2004:59

Table 7 summarises different elements of the industry as described above and displays once again its complex and fragmented nature (Ladkin, 2004). This complexity is supported by Mair and Jago (2010:77). However, to conclude this section, it must be reiterated that the interaction between three elements – buyers, suppliers and intermediaries – forms the total product, and changes in any of these areas will impact the meetings market and its future development.

After the discussion on the definition of sustainability and a closer look at the industry this research focuses on, the current status quo of sustainability in the meetings industry will now be examined in greater detail.

2.7 Sustainability in the meetings and events industry

As the preceding sections have shown, sustainability is becoming increasingly important in various economic areas, including the tourism and events industry, with the goal of preserving resources, creating jobs and spreading awareness for sustainability to protect or improve the state of the environment (Wall and Behr, 2010). According to König (2012), demographic change in an additional factor influencing the industry and can be viewed as one part of sustainable event management as well. However, the literature shows that there are different definitions and concepts for “sustainable event management”, which is why the following section

will present a summary and interpretation of them. Moreover, it aims to identify potential forces, barriers and drivers of sustainability in the meetings industry.

Sustainable event management concepts were discussed in Germany at the conference Green Meetings and Events in Darmstadt (2013), the scientific conference on event research in Chemnitz (Zanger, 2012), the conference GreenEvents Europe in Bonn, at the European level at the ESEC Conference in Copenhagen (2014), and at the international level in Sydney, Australia, during the Event Management Conference (Alle, 2005). The *German Ministry of the Environment* (UBA) published in 2015 a study on the development of per-capita CO₂ emissions in Germany. According to this study, in 2012 the average person in Germany produced approximately 9.3 tonnes of carbon dioxide. This represents a decrease in emissions from 12.3 tonnes in 1990, but the pace of decrease has slowed since 2006 (UBA, 2015). As discussed earlier, CO₂ emissions contribute to air pollution and climate change, producing serious impacts to the environment and ecological balances (Haas and Schlesinger, 2007:107). Working to further decrease these emissions is essential. This need creates new responsibilities for meetings planners, who can start incorporating environmental considerations into their planning with the goal, for example, of reducing emissions produced by an event to a minimum.

Germany: The Travel Destination (GNTB), also published in 2015 in co-operation with the *European Association of Venues* (EVVS) and the *German Convention Bureau e. V.*, estimates the meetings market in Germany from 2006 until 2014 to have included approximately 3.4 million events with some 383 million participants (GNTB, EVVC and GCB, 2015). A study from the *European Institute for the Meetings Industry* (EITW) from 2013 indicates a growing interest in sustainability topics. In 2011, approximately 27.4% of event agencies in Germany had integrated a sustainability management system into their operations; this value increased to 39.7% by 2013 already (ibid). This indicates a shift in the German meetings industry towards a more sustainable event management due to the increasing awareness of the importance of the topic and the potential economic benefits. However, this also results in specific requirements for the meeting planner, which will be highlighted in the following.

Formal analysis of sustainable events management should be based on a functional definition of sustainability, which requires details on which elements are to be sustained, at which level, and which stakeholder groups are to be targeted (Pezzey, 1997). Various scholars, for example Merrilees and Marles, stated that while there is no consensus on what is meant by a “green event or meeting” (2011:362), they are mostly described in the literature as events which integrate environmental measures or programmes in their management processes (Merilees and Marles, 2011:362; Laing and Frost, 2010). Getz (2009) suggests to integrate ecological aspects with the broader sustainability components of social, cultural, economic and environmental roles, whereas Laing and Frost (2010) define a “green meeting” as one that has a sustainability policy or incorporates sustainability practices into its management and operations (ibid). One assumption might be that authors often use the term “green events” in a more generic sense. Moreover, Rogers (2008:319) claimed a “strong link between green and sustainable events and as well as the rapidly growing interest in corporate social responsibility.”

As the tourism industry is highly dependent on strong, vibrant environments (as these are products being “sold” to potential tourists), environmentally conscious tourism has been promoted for much longer, but a new trend towards products and services that are not only sensitive to, but also proactively contribute to sustainable development (ibid) is becoming increasingly visible. This is supported by Smith-Christensen (in Raj and Musgrave, 2009:25) and Holmes (2015) who noted “a clear trend of events being promoted as ‘sustainable’, green or carbon-neutral, which begs the question if they are simply ‘promoted’ or also ‘managed’ as such.” She

continues, stating that the desire to showcase ecological consciousness is most likely due to the fact that “the environment rates high on the public agenda, best-practice resources are available; and impacts have been relatively easy to monitor, estimate and communicate” (Smith-Christensen in Raj and Musgrave, 2009:25). Despite this positive trend, some scholars claim that the “industry’s movement towards sustainability and responsibility remains challenged by ambiguous semantics and lack of transparency and accountability relating to the implementation of these classifications” (Raj and Musgrave, 2009:26).

Although a current issue, there is limited literature on identifying sustainability’s role within the meetings, incentives and event industry, despite evidence that consumer decisions are influenced by environmental and social concerns (Diamantopoulos *et al.*, 2003). Until recently, there seems to have been a lack of awareness and agreement as to what these sustainable initiatives could look like. As a result, and due to the fact that sustainable meetings management is a topic of growing interest in the meetings industry and elsewhere (ICCA, 2014; GCB, 2013), many companies and associations will need a helping hand in the near future regarding this issue.

The Sustainable United Nations Unit of the United Nations Environmental Programme (2009) provides the following definition for a “green event”:

“A green event is one designed, organised and implemented in a way that minimizes negative environmental impacts and leaves a positive legacy for the host community.” (2009:9)

Similar to the more general definitions on sustainability, this one, when applied to meetings management, focuses very much on ecological issues, while neglecting social and economic ones. The *Convention Industry Council* (CIC, 2010) proposed its own definition, too:

“A green meeting or event incorporates environmental considerations to minimize its negative impact on environment. Green or environmental considerations are one aspect of sustainability. Sustainability takes a *triple bottom line approach* that seeks to balance the social, environmental and economic concerns against business needs.” (CIC, 2010)

This definition covers the economic aspect of sustainability and demands we act ecologically today and in the future. It also includes the social aspect, but the phrase “green event” can be regarded as misleading here as well. According to Große Ophoff (2012) and Chehimi (2010:29) green meetings are a holistic approach for planning, operation, documentation and continued development of environmentally oriented meetings under inclusion of all relevant stakeholder such as employees, suppliers, service companies and delegates (Große Ophoff, 2012; Lup *et al.*, 2013). Similar to the majority of definitions, this one focuses on ecological aspects as well.

Große-Ophoff (2012) as well as Oblasser and Riediger (2015) list several action fields and measures for sustainable event measurement which will be discussed in more detail in Chapter 3. Of special importance are here, for instance, mobility, consumption of energy and resources, as well as catering. With sustainable events, the biggest sources of pollution will be the arrival and departure of the delegates themselves, whereas the location/venue and the event organiser will have a more limited impact.

Oblasser and Riediger (2015:30) argued that event management must be viewed in the context of businesses and therefore the definition should include corporate social responsibility as well. This ties into the definition of Loew and Rohde (2013:7), which states that CSR is an “enterprise responsibility for the influences of its activities on society and the environment.” CSR

management aims to decrease or even avoid negative influences, match legal requirements and meet stakeholders' interests. This discussion shows that there is no accepted definition and no minimum standards for sustainable event management, as the focus differs widely.

Accordingly, Oblasser and Riediger (2015) formulated their own definition:

“The organisation and operation of sustainable events includes the holistic and balanced view on ecological, social and economic sustainable actions. This might not only cover the single event.” (Oblasser and Riediger, 2015:31)

Their definition aims to cover a holistic *triple bottom line approach*. Moreover, according to Oblasser and Riediger, a re-thinking of all relevant stakeholders must take place. All measurements must be documented and validated in order to be integrated into a continuous process of improvement. The aim is to create an economically successful event via ethical and fair actions with the lowest possible impact on the environment. This fuels the assumption that the term “green meeting” might lead straight to an environmental focus instead of a balanced, interdependent approach incorporating economic, social and environmental aspects. To avoid this pitfall, the term “sustainable event” will be used instead of “green meeting” in order to underline the envisaged holistic approach.

As Große Ophoff wrote (2012:175): “(Sustainable events) ...are a holistic approach to the planning, execution, documentation and development for environmental fair-minded events, which involves all stakeholders such as employees, suppliers and delegates which are needed for this,” which is similar to Smith-Christensen's views (2009). She (Smith-Christensen, 2009, in Raj and Musgrave, 2009:24) offered a detailed discussion on the terminology and definitions surrounding sustainable event management as well, suggesting the following definition for what she calls “responsible events”:

“Events sensitive to the economic, socio-cultural and environmental needs within the local host community, and organised in such a way as to optimise the net holistic (positive) output.”

She proposed the term “responsible event” in lieu of “sustainable event” due to the fact that an event, defined by Getz (1997) as “transitory in nature, infrequent in occurrence and limited in time”, features several characteristics in direct opposition to the general principles of sustainability. She continues by demanding a balance between the aspects of the *triple bottom line*, with “strategies in place for optimising positive and minimising negative impacts” (Smith-Christensen, in Raj and Musgrave, 2009:24), which reflects the approach of Oblasser and Riediger as well. She also underlined the risk of neglecting the unique characteristics of the industry when applying general CSR frameworks from other businesses and when using the term “sustainability”. Clear and distinct language is essential.

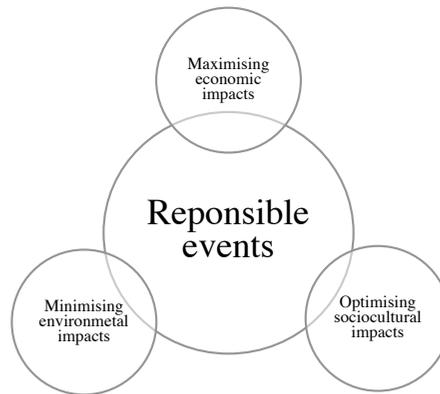


Figure 17: Responsible events

Source: Smith-Christensen in Raj and Musgrave, 2009:25

This is similar to the approach from Oblasser and Riediger, differing primarily in the use of “responsible” instead of “sustainable” event. Smith-Christensen (2009) and Getz (2009) note that responsible events prevent negative economic, environmental and social impacts, but foster the sustainable development on a local level. Sustainable events, however, consider the socio-economic and socio-cultural requirements of the delegates as well as the demands of the local community, a concept which concentrates primarily on local and regional events. In other words, these concepts describe two different perspectives on sustainability. On the one hand, the focus lies on the environmentally sensitive, socially responsible and economically efficient organisation of an event, and on the other hand the creative potential that events can have in terms of sustainable development on the regional economy and society (Smith-Christensen, 2009; Wall and Behr, 2010; Getz, 2009).

Wall and Behr (2010) distilled nine core targets for a sustainable event management from a comprehensive literature review: (1) economy, (2) guarantee for health and safety, (3) sustainable value chains, (4) sustainable use of resources, (5) reduction of emissions, (6) protection of natural and social environments, (7) fulfilment of stakeholder requirements, (8) sustainable community development, and (9) sustainable education. These targets underline the multi-dimensional character of sustainability approaches and clearly illustrate the interdependencies of an event with its ecological, social and economic environment, but, at the same time, also make it clear that no classical mapping to the TBL approach has taken place. They focus instead on the challenge of institutional integration in terms of content (Wall und Behr, 2010:17; BMU *et al.*, 2007) by tackling simultaneously with an organisations’ challenges in terms of social and economic aspects.

In summary, all theories suggest to minimise ecological impacts by maximising economic and social ones (Smith-Christensen, 2009; Oblasser and Riediger, 2015), which leads back to the not completely new, but still comprehensive definition of Musgrave *et al.* (2009:5ff.): “the aim is to maximise the economic effects (e.g. budget savings), to minimise the ecological influences (e.g. CO₂ emissions) and to optimise the social impacts (e.g. by orders for local suppliers).” This definition is seen as the most favourable one currently and will be used throughout this dissertation.

This discussion shows, similarly to the polarising debates on the definition of sustainability, that there is as yet no consensus for a standardised definition of sustainable event management. Some authors even consider the term an oxymoron, as the events industry is often associated with significant resource consumption and therefore “cannot be sustainable at all” (Abele and Holzbauer, 2011; Goldblatt, 2012). In addition, there is no common view on the aspects which define a sustainable event and which targets should be strived for (Wall and Behr, 2010). The complexity of the events industry as well as the divergence among types of events hinder the creation of a standardised approach to guidelines (Musgrave and Henderson, 2015; Mair and Jago, 2010). As a result, indicators and measurements for sustainable strategies must be developed on a case-by-case basis for individual events (Holzbaur, 2016; Wall and Behr, 2010).

Nevertheless, as discussed previously, several attempts at developing a holistic definition for sustainable event management and its most important patterns can be found in the literature (Große-Ophoff, 2016; Oblasser and Riediger, 2015; Wall and Behr, 2010; Smith-Christensen, 2009; Musgrave *et al.*, 2009). These represent attempts to redefine and reorganise the various aspects of an event – arrival and departure, catering, energy usage, for example – in an environmentally friendly way (Oblasser and Riediger, 2015; Reiser und Scherle, 2014). Moreover, they place the concept of *unternehmerische Sozialverantwortung* (CSR), i.e. the responsibility of an organisation or company towards its environment, society and all involved stakeholders, in the foreground, not monetary yields/profit generation (*ibid.*). CSR consists of more than just social engagement and thus can be seen holistically, as it involves all activities and the effects of all entrepreneurial decisions on society (Holzbaur, 2016).

A similar perspective on the sustainable organisation of events is shared by the authors Oblasser and Riediger (2015) as well as Große-Ophoff (2016). Wall and Behr (2010) as well come to the result that a comprehensive debate on the different areas of an event in connection with all phases of its organisation, i.e. planning, implementation and evaluation, is mandatory for successful sustainable events. Not only during the event itself, but also in the pre- and post-phases is it important to acknowledge sustainable economic, social and ecological thinking and planning (*ibid.*, Sounds for Nature, 2013). This involves both a reorientation among all relevant stakeholders as well as their active involvement in the conceptualisation process. The measurability, validity and reporting of measures used is also relevant in order to analyse the effectivity and utility of employed methods and adapt them where necessary (Große-Ophoff, 2016; Oblasser and Riediger, 2015).

By taking these points into consideration, the aim “to create an economically successful event through ethical and fair action with minimum impact on the environment” (Oblasser and Riediger, 2015:31) becomes possible. Köhler and Schneider (2016:121) add that the three dimensions of the TBL approach are interdependent and can lead to reciprocal reinforcement or even competition. According to UNWTO and UNEP, sustainable development means to create a balance between these dimensions (UNWTO/UNEP, 2005:9), which must be considered in terms of event management as well.

Some holistic approaches towards sustainable event management can be found in practice as well. The “green meeting and events conference”, organised by EVVC and GCB (German Convention Bureau e. V.) is one example from Germany. In general, this holistic approach is rarely executed by agencies and PCO’s, as it is mostly applied to the environmental level only. This is in line with the common phrase “green meeting” in the industry in general and German-language literature on the subject in particular. It underlines the one-dimensional focus on the environmental component. This is also due to mega events, which are seen as pioneers in the area of sustainable event management with examples such as EXPO 2000 or the Evangelic

Church Day (Große Ophoff, 2012:173). This results in mostly one-dimensional actions being taken and shows that a multi-dimensional approach is necessary.

The *Meeting- & Event-Barometer*, the common industry study published by EVVC, DZT and GCB which analyses the German congress and events market, defines green meetings as “events, for which the generated CO₂ emissions (for transport, accommodation, implementation etc.) are reduced, avoided or at least partly compensated” (EITW *et al.*, 2012:48). The definition of the publication *Green Events Report 2013* concentrates on the optimisation of the CO₂ balance of an event as well (Spiess *et al.*, 2013:14). In the article “Green is the Future of Events” in the journal *W&V*, “green meetings” are characterised as events “which [focus] mainly on an environmentally friendly and climate neutral organisation” (Rothfuß, 2014:26). The first definition considers not only the environmental component, but also a specific field of action, namely the reduction of CO₂ emissions. Literature review revealed that the focus on one pillar (“environmentally friendly”) is not sufficient. Instead, it demands a reduction in emissions rather than “only” being compensated (N. N. c., 2014:8) and, accordingly, follows the principle of “avoidance before compensation” in order to prevent emissions entirely (Wiemeyer, 2013:218).

The preceding discussion has shown that standard definitions for sustainable event management and green meetings do not exist, nor do any standard requirements (Große Ophoff, 2012:185). This leads to varying quality of events defining themselves as “green” or “sustainable” without any assurance that they are holistically sustainable events (*ibid.*). The execution of meetings and events in a sustainable way is a relatively new development. As it becomes more established, the inflationary use of the term “sustainable event management” may decrease and common standards and definitions may begin to emerge in industry. The first steps have already been accomplished, for example the guidelines from industry multipliers such as EVVC and GCB at a national level, UN and ISO guidelines at the global level, as well as pertinent certifications, for instance *Green Globe*. These guidelines and certifications will be highlighted in more detail in Chapter 3.

As previously discussed, the definition of Musgrave *et al.* (2009:5) is the one which will be used for this study, a definition which is similar to the one of Moderer *et al.*: “Sustainable event management means to handle economically, environmentally and socially compatible with resources and stakeholders” (Moderer *et al.*, 2012:190). This stakeholder-focused approach follows the benefit relationships between events and stakeholders.

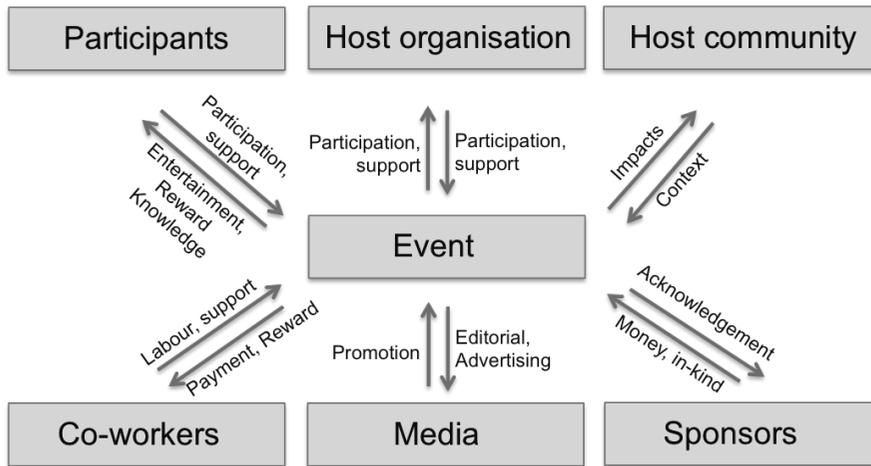


Figure 18: The Relationship of stakeholders to events

Source: Bowdin *et al.*, 2011:230

Figure 18 displays the relationships between an event and its different stakeholders, for example private households, companies, environments and communities, depending on the type of event. In economic terms, enterprises or associations might benefit through income and image development. Interdependency exists primarily on a monetary level and in terms of image effects. Private households reflect a societal perspective and can be seen in different relationships to the event such as the local community, volunteers and attendees. Beyond the economic and social perspectives, it is necessary to consider the economic perspective as well (Bowdin *et al.*, 2011). Moreover, public providers must also be considered stakeholders of an event. Here, communities and destinations benefit primarily from income and image effects.

All these considerations allow us to define the phrase “sustainable event management” clearly. In the proposed study this is regarded as the process to set-up, execute and finalise a meeting given social, economic and environmental aspects. As many actions and measures as possible will be taken into account. All phases of event staging and all levels of meeting organisation, including suppliers and stakeholders, should be covered, which naturally leads to the assumption that communication, both internally and externally, is of particular importance. The concept of integrated sustainable event management will be discussed in more detail in Chapter 5. Scholars also complain that the “how to” is missing or rare (Park and Boo, 2010; Raj and Musgrave, 2009:43), which shows the need for a practical approach as well. Approaches and concepts will be highlighted in Chapter 3 as well.

2.8 Potential impacts of meetings and events

In order to use and evaluate the sustainability of meetings, congresses, conferences and educational events effectively, it is essential to analyse the impacts they can have on different stakeholders. Every planned event results in both positive and negative impacts (Holmes, Hughes, Mair and Carlsen, 2015:5). The literature review revealed different approaches to analyse these impacts for scientific congresses. This is not only connected to the destination where the event takes place, but is also influenced by the type and size of the event (Holmes, Hughes, Mair and

Carlsen, 2015:5). Thus meeting and event planners must consider several aspects when planning a sustainable event. These aspects are highlighted in the following.

Meeting planners must consider how their events can have a positive impact on local inhabitants, now and in the future (ibid). According to Holmes, Hughes, Mair and Carlsen (2015:5), this signifies that every event must consider social, ethical and fair treatment and offer, for instance, equal opportunities for the jobs created in connection with it. Moreover, fair working conditions must also be created (ibid). Events can contribute to inhabitants' cultural and regional pride and cohesion (ibid). In other words, an event can help meet their needs as well as create new common values while also offering equal rights and access in order to encourage sustainable development (UNCSD, 2007, cited in Raj and Musgrave, 2009:3).

According to Holmes, Hughes, Mair and Carlsen (2015:5), the aim should be to decrease the impacts of an event to a minimum, meaning an event should be economically operable without harming the destination socially or environmentally (ibid). This also implies that suppliers must be involved in the sustainable event management process (Schreiber, 2012:175). Schreiber further underscores (2012:175) the fact that information regarding the sustainability measures for event operations as well as the appeal to transfer sustainable actions into our everyday lives must be made visible and highlighted for participants.

Jones as well as Schreiber (2010:3; 2012:174 ff.) specify different environmental areas which can be influenced by an event, for example reduction of energy, water and paper usage, mobility; waste management, reduction and recycling; and procurement of products and services (Jones, 2010:3; Schreiber, 2012:174). Moreover, according to Jones (2010:3), biodiversity, cultural legacy as well as ethical aspects must be taken into account during event planning.

Sustainability measures have been suggested by scholars such as Chehimi (2010:41 ff.), Sakschewski (2017:255) and Große-Ophoff (2012) with regard to events in the meetings and events industry:

- Energy: usage of energy saving lamps, green energy providers, motion detectors for lights, technical equipment only as the situation requires
- Water: usage of water-saving measures, low-flow toilets, absorption of rain water for watering of gardens at locations, fairs or congress centres
- Procurement: procurement of recyclable products with environmentally friendly production, usage of washable table sets instead of disposable ones, usage of environmentally friendly cleaning products, procurement of regional, seasonal or fair-trade eco-products, deployment of central water dispensers, bio-degradable hand soap, donation of unused food to charitable places
- Waste: recycling in all areas, compostable garbage bags, reusable packages, along the supply chain
- Communication: regular trainings, compilation of an environmental guideline for internal usage, compilation of information leaflets for external communication, information boards promoting sustainable consumption
- Mobility: job ticket for staff, mobility tickets for guests, incentives for car sharing and public transport

But as previously mentioned, this dissertation strives for a more holistic approach, such as described here:

“...sustainability in these three domains is consistent with the triple bottom line, a framework for measuring the progress of sustainable development in three equal parameters, often cited as the three P’s: people, profit and planet.” (Portland, 2009:121)

For measuring purposes, more general impacts can be categorised as tangible and intangible, as quantifying and not-quantifying benefits, and by cost (Köhler, 2014; Gelan, 2003; Dwyer *et al.*, 2001; Preuss, 1999; Rai and Musgrave, 2009). On a more detailed basis, this is done in terms of the area of impact, e.g. economy, the environment and/or society/social conditions. Although relation and categorisation are seen slightly differently by author (Bowdin *et al.* 2011; Hall, 1989; Ritchie, 1984), consensus exists in the impacts and general effects of events and meetings (Köhler, 2014), including:

- Economic impacts
- Environmental impacts
- Social impacts
- Touristic impacts
- Political impacts

These impact areas form the basis for the systematisation of economic, social and environmental impacts used in this work. Touristic impacts are included in the economic category, as they primarily influence economic areas via an increase in overnight stays or bookings in surrounding restaurants, for example. Changes in destination brand perception or awareness are not covered in this research project. Scholars such as Bowdin *et al.* (2011) and Hall (1989) agree touristic impacts are mostly integrated into and closely connected to economic impacts as well. This differentiation shows the close connection to the sustainability approach which forms the basis of this dissertation.

As Holmes (2015:2) puts it: “an event that results in more negative impacts than positive is undesirable, may lose support from the local community or generate negative publicity and is ultimately not sustainable.” He reiterates a common point that support for events relies on maximising the positive impacts and benefits, and minimising negative impacts (*ibid*). Accordingly, Figure 19, based on Köhler (2014) and Köhler and Schneider (2016), lists the possible positive regional benefits of events.

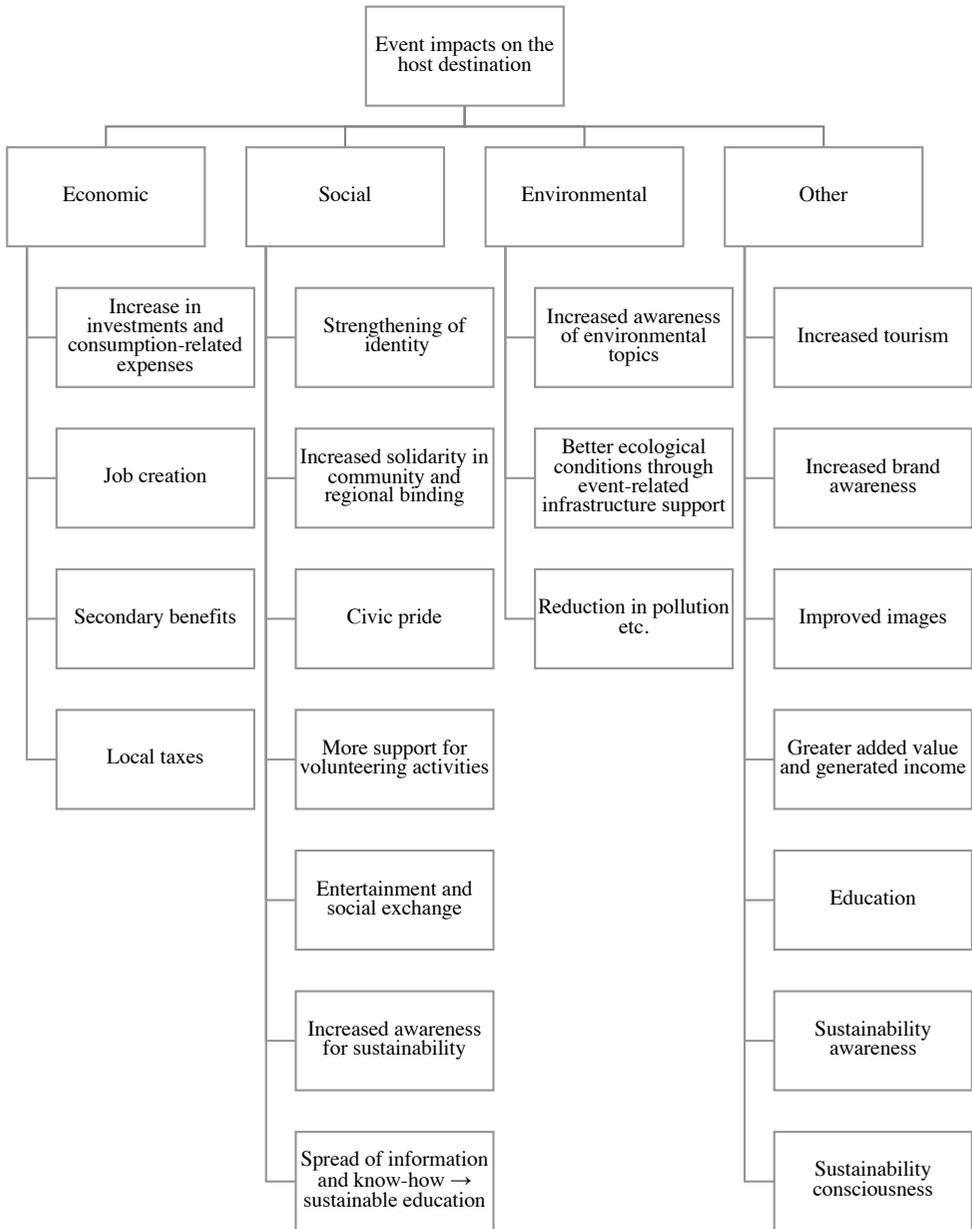


Figure 19: Potential benefits of events in the region

Based on Köhler and Schneider, 2016:130; Köhler, 2014:36; Wall and Behr, 2010

Here, impacts are divided into economic, social and environmental and other; in other words: the TBL approach expanded to include the aspect of tourism. It provides a good overview of potential possible benefits and forms the jumping-off point for a more detailed look at these impacts.

2.8.1 Economic impacts

Events such as scientific congresses, conferences, educational events or association meetings can have complex budgets and tend to bring economic benefits to a destination, underscoring their function as appropriate instruments for stimulating regional economies. The economic input is generated through payments of the stakeholder involved such as event organisation agencies, delegates, sponsors, suppliers and communities (Dwyer *et al.*, 2000:177). Event-related expenditures are the starting point for analysis of economic event effects resulting, for example, from delegates consuming food and beverages, accommodation or transportation during the conference, evening functions or during the production of an event. Participants also spend money at cultural sights or on souvenirs, which increases revenue in the local gastronomy, shops and hospitality industry.

This money is not always meant to have an economic impact on the host destination, however (Long and Perdue, 1990; Köhler, 2014; Stettler *et al.*, 2005:12). Employees of the organising agency or association, as well as artists hired for an event (for instance during an opening or closing ceremony or evening function) are paid for their work, for example. This is connected to private households (Stettler *et al.*, 2005:13). Moreover, additional demand for employees (tourism services, hosts or hostesses) may also be generated due to an event, creating a monetary flow from the company sector to the private household sector (Clausen, 1997:37).

The public sector is represented by communities. On the one hand, these public institutions can be potential patrons of events by offering funding. (For example, the City of Glasgow together with the Marketing Organisation and the Conference Center offer financial support for special events during conferences or even risk-sharing models). On the other hand, they also profit from event-related tax revenue (Stettler *et al.*, 2005:13). There are also transactions between private households and the public sector, as private persons pay taxes via their wages and consume expenditures directly and indirectly (Clausen, 1997:39). Moreover, companies also pay taxes to the communities. These figures, however, are purposely neglected in this work due to the complex nature of their impact, which makes their delimitation and value for an event difficult to identify, distracting from the research focus.

The regional economic effect of an association meeting is only generated from event-related expenditures, which come as new money flowing into the region (Crompton, Lee, Shuster, 2001:81; Dwyer *et al.*, 2000:177; Crompton, 1995:15; Köhler, 2014). This means it is the net economic change resulting from event-related expenditures in the host destination (Crompton and McKay, 1994:33). According to Kramer (1993:165), this net change can result in regional increases in turnover, added value or income effects, as well as an increase in demand for local staff.

Added value results from the turnover of the directly or indirectly involved stakeholders such as hotels, local guides, restaurants or other regional suppliers. The added value here is the capital obtained by enterprises or associations within a certain period of time (e.g. pre- or post-event) (Stettler *et al.*, 2005:10; Köhler, 2014). The added value generated by these consumption and investment expenditures is partly passed on to employees, resulting in an income effect (Preuss, 1999:47). The employment impact includes all jobs created through an event, though Crompton (1995) and Burgan and Mules (1992) stress the fact that these are mostly short-term contracts. An example here would be support staff during the Olympic Games or hostesses at an association event within the context of this research.

Beyond the impacts to private economies, national revenues are generated as well. These fiscal benefits result from event-related revenues such as parking fees, venue rental payments, public

transport fees, taxes (i.e. labour taxes, income tax) and community sharing of wages (Köhler, 2014; Gans, Horn and Zemann, 2003:92). These benefits are largely due to the expenditures of delegates, the resulting revenue increases for regional companies, and the taxes generated by the organiser, which can be the association itself and/or a PCO (Delpy and Li, 1998:235). Fiscal effects are generally calculated separately from economic effects (Dwyer *et al.*, 2000:177; Delpy and Li, 1998:235).

There are expenditures of event-, sponsor- or media agencies, which stem from the booth rent, sponsor investments or media rights. Moreover, it is possible that the organiser receives funding from associations. Delegates and congress teams must be taken into account here as well, though they were already mentioned in the context of private households. The expenditures of these stakeholder groups signify, in the context of the company sector, not their private expenditures, but those generated in connection to the company, for example from the company's budget or media institutions (Stettler *et al.*, 2005:13; Köhler, 2014). But there are also monetary flows in the other direction, as congress organisers purchase services such as production and staging, signage, catering, or security. Other companies indirectly involved in managing a congress, for example companies in the tourism economy or the local economy, can gain additional revenue by providing goods and services to the organiser or sponsoring enterprises.

The last sector involves stakeholders outside of the congress destination, which can include abroad, too. Regional, national and international delegates travel to the host destination and spend money. At the same time, the organiser might receive goods and services, for example congress bags or lanyards, produced elsewhere or even by international artists or employees.

In some cases, events can also produce negative economic effects for a host destination. This can include, for example, price increases, which might be regarded negatively by local inhabitants. This occurs when the staging of an event leads to an increase in demand for certain goods and services (accommodation, for instance) and suppliers react by adjusting prices (Preuss, 1999:88). There might be crowding-out effects to consider as well. This is the case when potential tourists and/or local inhabitants feel pressured by certain event impacts (overcapacities, increased prices, noise pollution, other environmental concerns) leading them to avoid the region during the event (Dwyer, Forsyth and Spurr, 2006:63; Baade and Matheson, 2004:346). Most examples found for this involve hallmark or mega sporting event such as the Olympic Games, but the World Economic Forum can also impact a destination and its surroundings to similar extents (Köhler, 2014).

These impacts can influence the public sector as well when, for instance, an event is supported via public investments from a budget which has been calculated for another event or project originally (Preuss, 1999:56). In order to prevent or minimise these negative impacts, regional stakeholder groups (locals, hospitality, and gastronomy) should be involved in the planning and staging of events.

This illustrates the complex economic relationships which form the basis for the analysis of economic effects. There are different approaches to measuring economic effects, which will be highlighted briefly in Chapter 3.

2.8.2 Social impacts

Event impact research focused mainly on the effects of events in terms of tourism and the economy, significantly neglecting social and ecological aspects (Deery and Jago, 2010:8; Köhler, 2014; Wall and Behr, 2010). With increasing focus on sustainability and corporate social responsibility issues, social influences have gained quite a bit of importance in the meantime.

Institutions, communities, associations, event agencies and professional congress organisers have begun accepting their moral and social responsibilities towards local inhabitants, employers and suppliers by ensuring that their events do not negatively affect their quality of life (Deery and Jago, 2010:8; Fredline, 2000:19).

If, for example, locals feel their quality of life affected by an event, a negative attitude towards the event is likely to occur (Köhler, 2014). This could affect in turn the potential revenue for the region and/or the event organiser or association. In other words, local service providers are important stakeholders in the event production as well. Ensuring long-term success for the region and an event itself requires organisers to foster a positive attitude and atmosphere among stakeholders with regard to that event. Impact analyses play an important role here in helping to identify not only the local supply chain’s opinions and acceptance of an event, but also key social issues at play.

Using these impact analyses in a target-oriented fashion requires a precise definition for the term “social effects”. This term is used in different disciplines such as environmental research and tourism research, leading to different definitions and systematisations (Vanclay, 2002:184; Teo, 1994; Köhler, 2014). In event research, most scholars understand social effects to be all effects potentially influencing locals’ quality of life (Fredline *et al.*, 2005:7; Fredline, Jago and Deery, 2003:26; Sherwood, 2007; Wall and Behr, 2010). The latter scholars underline that the integration of “different stakeholder groups in the process of planning, execution, transparency, procurement, corporate social responsibility through the support of social projects, funding of education and culture can help the event to be more effective” (Wall and Behr, 2010:10). This definition is used throughout this research, too.

Author, year	Identified effects
Getz (2009)	Necessity of stakeholder integration and communication Enhancement of the local community
Griffin (2009)	Satisfaction of stakeholder groups (profile and motivation of attendees)
Lamberti (2009)	Fundraising success for social projects Satisfaction of delegates
Ritchie (1984)	Importance of security for participants (security and risks, responsibility of organiser)
Fredline <i>et al.</i> (2005)	Integration of local inhabitants Security guarantees (for attendees and locals)
Bramwell (1997)	Importance of stakeholder integration Initiation of positive effects on the social community in order to prevent legitimatisation problems
Wall and Behr (2010)	Integration of different stakeholder groups in the process of planning, execution, transparency, procurement, corporate social responsibility through the support of social projects, funding of education and culture
Köhler (2014)	Impacts of regional events

Table 8: Sustainable event management literature
Based on Wall and Behr, 2010:10; Köhler, 2014

There is no standardised categorisation of social effects for events. Table 8 summarises the effects identified by different authors and offers an overview of impacts which can occur and therefore have an impact on stakeholders. But event such as gatherings, meetings and conferences can also create various benefits for locals. They can generate a great deal of awareness for their culture (local souvenirs, traditional music and dance in opening or closing ceremonies, etc.) and for regional topics of importance, and they can result in an increased sense of belonging and civic pride (Fredline, Jago and Deery, 2003; Dwyer *et al.*, 2000:185). Additionally, the congress, meetings and events industries can create new jobs at various levels of the

community. Large numbers of people offered a seasonal job might again be an issue seen often during the preparation and execution of mega events like the Olympic Games; hostesses booked for a congress might be an example for this area.

Looking past these benefits, costs may also occur before, during or after an educational event, as for instance locals' quality of life might suffer during the event (due to security constraints, traffic congestion, overbooked restaurants, increasing prices or reduced availability of goods or parking spaces). Huge congresses connected with fairs, for example, tend to create transport and mobility issues such as traffic jams, accidents, limited parking, and overcrowded public transport (Delamere, Wankel and Hinch, 2001). Examples would be the World Economic Forum in Davos, Switzerland, or any G8 or G9 meeting for that matter. Environmental concerns might lead to discussions with locals (Fredline and Faulkner, 2002; Große-Ophoff, 2012): when regional values conflict with the values of an event, this might very well result in dissatisfied local inhabitants (Dwyer *et al.*, 2000). Special challenges also include security concerns, protests and demonstrations (for example, during every World Congress on ADHD, the Church of Scientology organises protests in front of the venue, impacting delegates and locals). This might lead to a drop in acceptance of the event for locals (Dwyer *et al.*, 2000:186).

In her event management concept (see section 2.8), Smith-Christensen (2009) differentiates between sustainable and responsible events (Smith-Christensen, 2009; Getz, 2009; Sakschewski, 2017). Responsible events avoid negative economic, environmental and social impacts and stimulate sustainable development at the local level. With sustainable events, the organiser considers socio-economic and socio-cultural requirements of the visitors/participants as well as the interests of the community where the events occur. This is mainly focused on local and regional events and meetings, and describes two different perspectives on sustainability with regard to events (Sakschewski, 2017). This is primarily about the environmentally fair, socially acceptable and economically efficient execution of an event. At the same time, however, it is about the creative potential events have in relation to the sustainable development of regional economies and societies. This puts into focus the planning and execution of specific activities aiming to increase a target's profitability, guarantee public health and safety, create a sustainable value chain, promote sustainable use of resources, reduce emissions, and protect the natural and social environment.

Also relevant are the target's community development as well as the spread of sustainable content and/or an increase of knowledge and education for sustainable development. These can be achieved in close cooperation with the local community and local institutions, i.e. local stakeholders (Wall und Behr, 2010; Sakschewski, 2017, Getz, 2009). Table 9 summarises the two different perspectives:

Perspective	Sustainability of the event	Sustainable development through the event
Questions	How is the effectiveness of sustainable event management measurable?	How are an event's contributions towards the sustainable development of economy and society measurable?
Derived core targets	Profitability Guarantees for health and safety Sustainable value chain Sustainable use of resources Reduction of emissions Protection of the natural and social environment Satisfying stakeholders' demands	Sustainable community development Spread of sustainable content Increased education and sustainable development

*Table 9: Sustainability of events and sustainability through the event – two perspectives
 Based on Wall and Behr (2010), Sakschewski (2017); Smith-Christensen (2009)*

Measuring sustainability performance and continuous improvement are connected to environment and quality management systems, but can also be done without implementing either one of these. Instead, determining success is possible via evaluation concepts and instruments and sustainability indicators for sustainable event management (Sakschewski, 2017). For evaluating and reviewing sustainability indicators, the indicators must be able to display the level of achievement in relation to the abstracted core targets (Wall and Behr, 2010). The literature review revealed that social impacts are a key success factor for the staging of an event (Fredline, Jago and Deery, 2003).

Positive social effects	Negative social effects
Network exchange	Limitations to civic rights
Attendance of a unique (international) event	Disruption to locals' daily lives
Uniqueness of local scientific groups	Locals' frustration when not included in the sustainable event management process
Showcasing good values (sustainability) through the event	Stretching the financial resources of the community
Improved image of the destination/scientific association/clinic/institution	Increased risk of vandalism or other criminal activity
Economic impulses for additional purchases	Increased noise
Support for local tourism	Increased waste
Delegates as potential tourists	Parking problems
PR and media reporting	Traffic jams
Development of new skills, methods	Environmental concerns
Social exchange	Conflicts with social or moral values
Exposure to new ideas	Event topic and community do not mesh
State-of-the-art-research (for delegates and locals, e.g. in form of a patient's day during a scientific/medical congress)	Division of the community, defensiveness of the locals
Possibility to visit friends and relatives or (former) colleagues	Increased prices for goods and services
Cultural exchange (delegates visiting museums after the congress)	Increased rent
Increased understanding and awareness of other cultures	Gentrification
Civic pride	Limited capacity in restaurants, public transports
Improved connection of communities	Less privacy for locals
New jobs for the region	Limited access to local institutions
Acquisition of new investments	Harmed image of the destination
Incentives for preserving natural resources	Environmentally harmful measures (new parking spaces)
Incentives for preserving local culture	-
Incentives for preserving historical buildings	-
Increased life quality (proven through cultural offers or social cohesion, for example)	-

Table 10: Overview of social impacts of events

Based on Holzbaaur, 2016; Small, 2008; Köhler, 2014; Wall and Behr, 2010; Fredline, Jago and Deery, 2005; Fredline and Faulkner, 2002; Jones, 2014; Delamare, Wankel and Hinch, 2001; Raj and Musgrave, 2009; Bramwell, 1997

In order to balance the effects of events for all stakeholders involved, it is necessary to develop an understanding for the mechanisms for measuring these effects, which is why Gifford's "Dragons of Inaction" is considered in section 2.1.1.

As long as local inhabitants feel that an exchange with other even stakeholders brings a mutual and equal benefit, a positive perception of the event can be developed. Research revealed that inhabitants who benefit economically from tourism and events, i.e. the meetings and events industry, through job opportunities or additional revenues, for example, tend to have a more positive attitude towards educational events and conferences compared to those who do not benefit economically (Fredline, 2004; Madrigal, 1995; Köhler, 2014).

2.8.3 Environmental impacts

According to Sherwood (2007:141), Köhler (2014) and Fredline *et al.* (2005:7), environmental impacts mean here all influences on the natural environment caused by an event. Events tend to create several environmental impacts: increased emissions from highly concentrated

numbers of participants in a small space (Köhler, 2014), increased waste from an event, and increased energy consumption of the venue. The noise created by the arrival and departure of event delegates can also create significant stress for local inhabitants, flora and fauna.

Key impact factors for environmental pollution are the arrival and departure of delegates to a meeting as well as the event-related transport of materials (Sherwood, 2007). The level of impact varies with the choice of transport and available shuttle connections. The emissions of an aeroplane are twice as much as those of a train (David, 2009:68), and combined shuttles can reduce the number of trips overall.

However, an event can also provide positive environmental benefits as well, for example by increasing awareness for ecological efficiency and sustainability amongst delegates or employees attending the congress. These persons can function as multipliers, spreading their new awareness to other groups in public and private (Köhler, 2014). Additional ecological benefits might arise from investments in the form of newer, more efficient venues or infrastructure, or even the installation of energy efficient upgrades such as solar panels (Rahmann *et al.*, 1998:62). Another example might be the save-the-bees campaigns in Copenhagen or of several conference centres in Germany. The bee hives enhance the natural environment and provide honey that can serve as a local giveaway for clients.

Similarly to social effects, environmental effects have become increasingly important in recent years. As described previously, a trend towards “green meetings” or “green events” can be identified in event research and practice (Hall, 2012; Schreiber, 2012; Bowdin *et al.*, 2011:155). These concepts focus on reducing ecological damage caused by events and therefore, in the long-term, seek to preserve natural resources as well.

According to Jones (2014:108), Goldblatt (2012) and Große-Ophoff (2012), resource loss is concentrated in the areas of energy, water and organic matter, which naturally leads to a stronger focus on these areas in theory and practice. The literature review revealed a more intensive consideration and research focus on the ecological effects of events over the last decade. This is visible in the choice of topics during association conferences, the publication of several guidelines for organising eco-friendly / sustainable events (see Chapter 3) and initiatives for making events eco-friendlier. The increasing interest in this research area results at least partially from the fact that events can affect a wide range of areas, and some of these effects can cause enormous environmental harm. Potential environmental issues caused by events are summarised in Table 11.

Factors	Impacts/Consequences
Transport	Arrival and departure of event stakeholders (delegates, employees) and materials transport for event staging not only create emissions and noise, but also accelerate the loss of organic matter. Space required for arrival and departure can lead to loss of open areas. Choice of transport is essential (aeroplane vs. train, car vs. bicycle).
Catering	Unsustainable treatment/conditions for animals can lead to a decrease in biodiversity. Food production can lead to higher emissions through long transport chains, unsustainable forms of production. Recycling of food and waste (packaging material) can lead to higher waste emergence and ground pollution. Environmental damage is dependent on the type of catering (e.g. organic vs. chemical products, regional vs. imported products).
Energy usage	Energy for electricity, heating, lighting, cooking, mobility to/from the venue creates harmful emissions. Environmental damage is dependent how energy is used (economically vs. lavishly) as well as the usage of renewable energy.
Water consumption	Water is used during an event for personal hygiene, catering, cleaning. Environmental damage is dependent on how water is used (economically vs. lavishly); applies to the sewage system as well. Events held close to watercourses pose additional dangers, too.
Waste	Mainly due to food and beverages (e.g. bottles, glasses, packaging, food scraps, cutlery, napkins). Environmental damage (ground pollution, ground water) is dependent on whether recycling systems, if any, are used.
Noise	Noise pollution is created by event formats with music, the arrival and departure of participants, and the delegates themselves and can lead to trouble, stress or health problems for local inhabitants as well as local flora and fauna.
Venue and delegates	Using huge outdoor spaces can harm the local flora and fauna or cause erosion (not applicable to congresses). Concentrating many participants in one spot can lead to higher stress levels for locals. Depends on sustainability consciousness of attendees, employees, locals.

Table 11: Causes of ecological pressure through events

Based on Holzbaur, 2016; David 2009:68; Jones, 2014; Köhler, 2014; Sherwood, 2007; Wall and Behr, 2010; Getz, 2009; Musgrave and Raj, 2009; Lucas, 2007

Event managers must consider the amount of influence they have: for example, they cannot necessarily choose the energy supplier for an event, particularly if the venue already has one. The portfolio matrix from Oblasser and Riediger (2015), which is introduced in Chapter 3, takes this into account. At the same time, the simple decision to support local, social, environmental projects instead of handing out presents to key speakers increases the sustainability consciousness of participants and promotes sustainability.

The production of food and beverages are another key source for ecological pressure. This includes both the quantity and (if any) recycling of waste as well as the production-side of food (David, 2009:69). A central aspect to the extent of this impact is the origin of products and goods: imported goods lead to higher emissions due to the distance and form of transport, leading to a higher usage of organic matter to local products. Moreover, the combination of products (chemical vs. organic), the amount consumed, as well as the packaging (material, size, quantity) influences the amount of waste created by an event and whether recycling is feasible (Köhler, 2014). Recycling products with chemical components or complex plastic packages requires more resources than recycling organic products.

Educational events such as conferences, especially when combined with an exhibition, tend to have a high energy and water usage, as the venue needs heating, lightning and electricity for catering and transport. The technical equipment required to operate several meeting rooms and

the exhibition halls at once is the main source of energy consumption. Water is used by the delegates for personal hygiene and by the venue for cleaning purposes. Energy usage increases at the destination itself during an event, as hotels, restaurants and transport are used more than normally. Naturally, individual use of resources as well as the use of any renewable energy or sustainability concepts will directly influence the amount of environmental harm.

2.8.4 Other impacts

This category summarises effects connected to networks, skills, politics or structures, which cannot be easily grouped into one of the aforementioned categories. These interaction processes result not only in an economic benefit, but might lead to an immaterial benefit such as networking effects, i.e. cooperation effects arising from shared project management that may live on beyond the specific event in which they occurred (Scherer, Strauf und Bieger, 2002:4). Potential for synergies might be identifiable here. Conferences offering a platform for political actors tend to have political effects on the stakeholders as well (Ritchie, 1994; Köhler, 2014). These political actors benefit from the destination and vice versa (Ritchie, 1984:10). Crompton (1995) highlighted that events can be used to generate subventions, which might be an attractive argument, too. As these impacts are not considered important for this dissertation, this angle will not be explored in detail in the following sections.

2.8.5 Summary of event impacts

The preceding section showed the various effects of events, which can be either positive or negative. Musgrave (2011) stated, however, that few organisations actually consider the characteristics and impacts of events.

Table 12 offers a summary and quick overview. It must be stressed that only the sustainable effects in terms of social, environmental and ecological aspects will be considered in this dissertation. Other impacts are neglected as they fall outside of this scope.

Impacts	Positive	Negative
Economic impacts	<ul style="list-style-type: none"> Increased consumption and investment expenditures Value creation Employment effects Income effects Fiscal effects Direct/indirect expenditures Increased property value due to natural regeneration Additional trade and business development Increased investment in development and construction Event product extensions 	<ul style="list-style-type: none"> Price increases Crowding-out effect Reallocation of public funds Cost of event failure to local/national economy
Social impacts	<ul style="list-style-type: none"> Increased identity Increased feeling of togetherness, regional bonding Increasing interest in regional topics Civic pride Promoting volunteering More entertainment, social exchange More development and construction Long-term promotional benefits Destination awareness Community development Increased employment opportunities 	<ul style="list-style-type: none"> Increasing cases of vandalism or violence Overcapacity Full public transport Future use of infrastructure not optimized Interruption to daily business Media impacts Unequal distribution of wealth Conflicts with regional values
Environmental impacts	<ul style="list-style-type: none"> Increased awareness for ecological topics Improved environmental conditions through event More investments in infrastructure Long-term conservation efforts for destination 	<ul style="list-style-type: none"> Damage to national resources (increased CO₂ emissions, excess population, waste) Damage to destination (Noise) pollution Traffic congestion Increased energy demands
Other impacts	<ul style="list-style-type: none"> Network effect Competency effect (knowledge transfer in companies) Structure effect (refurbishment, investments in infrastructure) Political effect (spread of political ideas and values, increased reputation of the destination or regional political actors) 	<ul style="list-style-type: none"> Event induced long-term costs through un-used infrastructure (structure effect) Structure effect: hurting architectural landscape Political effect: focusing on political interests at the expense of local inhabitants

Table 12: Potential impacts of events

Based on Holzbaur, 2016; Köhler, 2014, Ritchie, 1984; Crompton, 1995; Sherwood, 2007; Delamere, Wankel and Hinch, 2001; Fredline and Faulkner, 2002; Fredline, Jago and Deery, 2005; Dwyer et al., 2000, Raj and Musgrave, 2009:5

Positive social aspects include not only development and construction, but also increased civic pride among local inhabitants. The argument of increased employment opportunities can be problematic, however, as this often is limited to the event periods (this applies particularly to mega sport events such as the FIFA World Cup or the Olympics). Raising awareness for environmental issues might be regarded as positive aspect, but damage to the site must also be taken into account. Different kinds of disturbances might take place during the staging of an event (depending on the type of event, naturally). Positive economic effects are often connected to direct and indirect benefits for the local economy such as increased shopping or hotel and restaurant expenditures. An event failing can have serious ramifications for the local economy as well due to revenue shortfalls. Moreover, product prices or even rent might inflate as the result

of an event, but these phenomena are more associated with mega events such as the Olympics, business events.

As researchers such as Sherwood (2007), Schreiber (2011), Jones, (2014) as well as industry associations such as the *German Convention Bureau e.V.* (GCB, 2013) or the *Green Meetings Industry Council* (GMIC, 2012) have pointed out, a sustainable approach to meeting management can have several positive benefits, including cost savings through reduced energy consumption, minimising and recycling waste, purchasing regional products. In fact, reducing consumption overall is generally a good way to save money. A positive reputation and multiplying functions as a sustainably organised meeting can showcase an organisation's or association's commitment to sustainability. Interest in innovation and the will to change can be prominently displayed by promoting creative strategies for efficient use of resources and can, in return, raise awareness for sustainability among delegates, staff, suppliers and locals. Local habitants in particular can learn more about opportunities made possible by sustainable choices, social benefits, or even adjust their decision-making by being exposed to shared standards or alternative forms of behaviour.

It might be possible to motivate other organisations, companies and associations to implement sustainable event practices by sharing best practice examples. This might diminish behavioural barriers and eventually lead to return on investment. By pursuing sustainability, it is not only possible to minimise costs, but also maximise the resulting strategic opportunities.

2.9 Motivation to implement sustainable event management

This chapter discussed different views regarding definitions used throughout industry. It has been shown again that terminology is unclear and imprecise, resulting in uncertainty among industry stakeholders. Having established that, this section will discuss the motivation to introduce sustainable event management. Influencing factors for sustainable event management in Germany will be analysed here as well by examining laws, ethical standards, and industry guidelines in order to understand the driving forces and potential barriers at play (see 2.11 and Chapter 3). This section will begin by examining the behavioural gap identified in the literature review in terms of sustainable events and for stakeholders such as buyer and seller.

Bowdin *et al.* (2012:155) as well as Große Ophoff (2012) state that motivation to adopt sustainable event management began picking up steam in early 2000; however, it is important to consider each event focuses on different areas due to a lack of common standards and guidelines (see Chapter 3 for more detailed discussion). The motivation to implement sustainability standards for smaller events such as gatherings or conferences, has been observed during the last decade (Große Ophoff, 2012:173) and thus can be considered a current topic. Moderer *et al.* (2012:188) say that participants increasingly expect sustainable organised events, a view supported by Saeed-Khaan (2009:149), who wrote: "Increasingly, clients are demanding that more sustainable practice be a benchmark of the event planning process." This is further supported by the results of the CSR study "*The Value of CSR in the Meetings Industry: Clients Are Driving Sustainability*". The study "*Meeting and Event Barometer*" from 2014 revealed that 82% of all sellers and 66% of all buyers are interested in more sustainability through, for example, more regional products as well as reducing and/or compensating for CO₂ emissions (EITW *et al.*, 2014:33). The study further indicates that one third of buyers prefer certified sustainable sellers (EITW *et al.*, 2012:49 ff.) and every third seller is striving for certification from an external institution, which represents an increase of 10.3 percent more over the year before (*ibid*).

Buyers (86%) and sellers (88%) agree sustainable meetings and events will remain as important as they are now or become even more important in the future (ibid).

The publication “*Green Events Report*” came to similar results: 75% of buyers believe the topic of sustainability has become more important in recent years (Spiess *et al.*, 2013:3). The German Convention Bureau praised this development, finding that sustainability is slowly considered essential for a meeting’s success (Shinde, 2012:10). Compared internationally, the awareness of German buyers for sustainability is low (Moderer *et al.*, 2012:188). However, as the “*Meeting and Event Barometer*” defines green meetings solely in terms of reducing or preventing greenhouse gas emissions, it is important to stress that this type of awareness is not comparable to the understanding of sustainable meetings and events which forms the basis of this dissertation. Nevertheless, it reflects a pre-existing awareness for the need to protect resources within the meetings industry. As previously discussed in section 2.8, other scholars also identified the one-dimensionality of sustainability in the meetings and events industry, focusing mainly on ecological aspects (Zanger, 2012:10).

From the perspective of agencies organising events on behalf of companies and associations, ecological sustainability is the topic of focus in about 30 to 40% of client briefings, owing largely to the fact that large enterprises demand measurable indicators (Zanger, 2012:6). Zanger (2012) also highlights that a “process of consciousness change started in the field of event organising companies” (ibid). In comparison, Rothfuß (2014) found that the demand for sustainability from small and medium-sized enterprises is low.

A survey conducted during the IMEX Fair 2009 indicated that environmental topics are important for three quarters of interviewees. 80% believe ecological aspects are growing in importance (Moderer *et al.*, 2012:188). This view is also supported by Wiemeyer (2013). The German event market itself is also growing, allowing us to assume that the demand for sustainable events is growing with it.

DeSimone and Popoff (1997), as cited in Musgrave and Raj (2009:1), suggested that “sustainable management has emerged out of a necessity to continue to grow and prosper while working in partnership with surrounding communities, the environment and the economy.” The event manager must thus be aware of the concept of sustainability and integrate the principles within the organisation or association and event management thoroughly (ibid). Sustainable event management should be incorporated into all phases of event organisation, from planning, organisation, execution to post-meeting. As in other sectors, it is important to involve all levels in a company or association, including all stakeholders, in the sustainable management strategy (ICCA, 2014). Raj and Musgrave (2009:5) wrote that practices in sustainable event management developed over several years, “rather than being a concept born out of government strategies or academic posturing”, which might be due to the hands-on and practice-oriented focus of the industry. They conclude that sustainable event management requires “a change in attitude, an increase in supply chain pressure, an increase in the awareness of the true cost of waste and transparency of product life cycle” (2009:5), a perspective that underscores that sustainability is not a “trend”, but a necessity.

It must be assumed that associations dependent on their members and event delegates will react to public opinion (Putt del Pino *et al.*, 2006). A behavioural and strategical change towards sustainability can have positive impacts and UNESCO (2007), for example, identified an increase in international CO₂ emission reduction strategies. The CSR reporting duty introduced in 2017, but also stakeholder demands, put further pressure on organisations and associations to adopt sustainability strategies. *UN Global Compact* (2008), for instance, provides ten widely

accepted principles on labour and human rights, environment and corruption. Shortly thereafter, the Danish Foreign Ministry sought to integrate these principles into the procurement process for all suppliers and sponsors at the COP15 conference (Copenhagen Sustainable Meeting Protocol, 2009). In Germany, a variety of similar guidelines and principles have also been established, which will be highlighted in Chapter 3.

According to Oblasser and Riediger (2015:16), all these issues reveal a lack of knowledge in the German meetings industry on sustainable event management practices. Moreover, here it is not considered consider a trend, but a political agenda. Therefore, it is interesting for those who implement sustainable event management processes already today and underscores the necessity, and complexity, of motivating managers to focus on sustainability event management practices. Oblasser and Riediger (2015:27) note that another indicator of the increasing importance of sustainability in the events industry is the increasing number of available workshops and study programmes in education. Sustainable event management is also a hot topic at many national and international conferences. The industry regularly reports on so-called “green meetings” and the German Convention Bureau e.V. initiated in 2015 the third “*Green Meetings & Events*” conference. Moreover, the above-mentioned *Sustainability Advisor Seminars* introduced by the German Convention Bureau e.V. and distinguished by the German *UNESCO* Commission enjoy great popularity as well.

These public discussions highlight the significance of the topic. Every event makes use of manifold resources, but they also offer platforms for reaching and informing many delegates about the sustainable event management and its advantages, for example short term notifications about speakers/time/room changes. (These cannot be displayed in publications that are already out of date at the time of printing.)

Musgrave summarised additional aspects which underline the necessity for sustainable event management and explained why many associations are interested in putting this on the agenda, including awareness of the impacts of events, the desire to reduce them, to conserve materials, and reduce the consumption of energy, time and wastage:

“Consequently, issues of sustainability within organisations should move from an ethical and moral argument to one couched in components of quality, leveraged competitiveness and strategic management” (2011:263).

As stated previously, Musgrave (2009) claimed that there is no excuse not to take action (i.e. despite various definitions swirling about and the confusion surrounding them). He proposed that sustainability is rooted in “a moral desire towards equity in and out of an organisation and a realignment of management approaches from infinite resources to an awareness of finite resources” (Musgrave, 2011:268); a “paradigm shift” in his words. This is similar to the more strategic approach desired by Porter and Kramer (2006), who claim that the “ethical belief of give and take” (2006 in Musgrave, 2011:260) should be the basic idea at work.

The meetings and events industry is consumer facing and as Hall (1992) suggested “it is the public sector’s heightened awareness of these implications that has given rise to industry reaction.” Fredline *et al.* (2003) go further, questioning the long-term viability of events and suggesting that events have a low probability of reoccurrence if event-specific objectives are unrelated to the values enshrined in sustainability principles. Supply chain management, stakeholder involvement, social and ecological regulations might be some of the challenges faced by the industry.

As the *Responsible Business Forum* on IMEX stated, by 2050 the global population is projected to hit 9 billion people and the increased demand for water, food and energy will exceed our current capacity to provide. Implementing sustainability is needed across the board, including meetings management. Currently, stakeholders are unsure whether it is a trend or a necessity, but due to the growing imbalance between available resources and needs, sustainable meeting management should be common sense. While this notion underlines its importance, it also points to its challenges, as a change in attitude requires both a certain awareness of the issues and the will to change. Accordingly, we can assume that there is an awareness for the necessity of sustainably organised events in the German meetings industry and that there is a growing demand for events that use resources efficiently. But there is still potential for growth, as there are still buyers and sellers entering this field and resource conservation actions are rarely rooted in holistic sustainable efforts, rather focusing on ecological aspects.

The results discussed above do not automatically imply resource conserving behaviour, i.e. the sustainable execution of an event. According to Shinde (2012:13), ten percent of all briefings demand sustainable aspects, but only one client out of 100 actually books “green” events (ibid). A Xing study shows that 56% of interviewed organisers do not have specific guidelines for sustainable management and at 65% of attended conferences not even name badges are recycled (Spiess *et al.*, 2013:6 ff.), despite the fact that 75% of respondents agree that sustainability is important. “The execution of sustainability has reached the meetings industry in the last 20 years only slowly”, notes Große Ophoff (2012:185). Nevertheless, a change can be seen (ibid) in form of guidelines, checklists, certificated and awards. This development will be highlighted in the following Chapter 3. It leads to the assumption that governments, associations and universities are seeking to minimise the behavioural gap. The discrepancy between sustainability awareness and sustainability behaviour discussed in section 2.12 seems to be applicable to organisations within the German meetings and events industry as well.

Figure 20 (Oblasser and Riediger, 2015:28) highlights the processes of change. Based on the social processes and flanked by economic and political processes, a continuously positive process of change can occur:

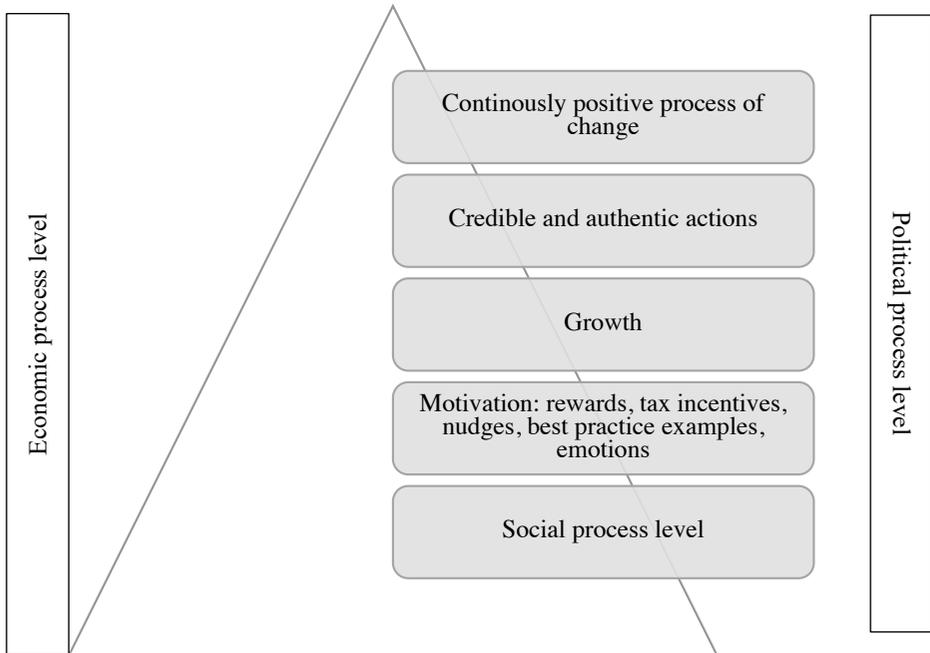


Figure 20: *The will to change*

Source: Oblasser and Riediger, 2015:28

It shows that economic, political and social processes are necessary for continuous development. Motivation can be inspired by emotions, role models, external nudges (which can stem from different causes such as industry/peer pressure), good experiences, competition, social pressure, but also incentives such as tax decreases. From here, growth and authentic and credible actions can develop, leading to a continuous process of change.

Thomas and Wood (2014) noted several deficiencies in their literature review on sustainability, among them being the lack of papers on the innovation practices of commercial tourism enterprises, suggesting that there is low innovation potential in the industry. Several scholars such as Henderson (2014), Roth (2012) and Gifford (2011) stated that it is difficult to get rid of old habits. This might be, in combination with the special features of the events industry as highlighted above, a barrier to the implementation and usage of sustainable event management practices in the events industry. This leads to the assumption that the main difference in the motivation question is whether it is rooted in intrinsic or extrinsic motives, i.e. in ethical beliefs or regulation/legislation. Regardless, the literature proposes that there is a gap between sustainability theory and practice, i.e. between awareness and behaviour. There is increasing awareness of environmental and social issues in the meetings and events industry, but few are taking action. Implementation of sustainable strategies is, according to Lane, “still neither broad nor deep and is perhaps indicative of an adaptive paradigm nudge rather than a transformational paradigm shift” (in Gössling, Hall and Weaver, 2009:299).

A reason for this might be the industry itself, as even individual events often have several stakeholders. This raises the question: who will be the motivator for sustainable event management practices? The agency, the association, the delegates, or perhaps service operators from the supply chain like congress venues? Motivation can be differentiated between intrinsic and extrinsic values here as well.

One might assume that a change from extrinsic to intrinsic motivation is required to fully and successfully implement sustainable event management, or, as Hall puts it for the tourism industry, introduce a “behavioural change” (2009:285).

The fundamental approach of incorporating sustainability into event management should be grounded in the ethical belief of giving, a notion supported by Porter and Kramer (2006) as well as Banjaree (2008). Montiel established the following basic principles for organisers when considering integrating sustainable management practices:

1. Intrinsic value – visible for its own sake, independent of benefits to humanity and society; and
2. Use value – visible as a CSR approach that identifies value in the natural world and the benefits to humanity and society (Montiel, 2014).

In contrast, an ecocentric view which puts ecological values in the focus (as opposed to a technocentric view) needs moral decisions centring on environmental, not human, interests. Jenkins, however, argues that “a strong sustainability view could be held from an anthropocentric perspective by arguing that human systems depend on rich biodiversity or that human dignity requires access to natural beauty” (Jenkins, 2012:383).

This discussion shows that the motivation and necessity to include sustainability in the meetings management process is rooted in different aspects. Musgrave stated that the events industry is characterised by “low barriers to entry and hyper competitiveness” (Musgrave, 2011:259) and that it is “imperative to demonstrate due diligence in the market place” (ibid). He continues, stating that “public image (stakeholder relationships), third-party assurance (ethical risk) and investor recognition (values and objectives) is likely to underscore sustainable management as a management system process towards continued competitive advantage” (ibid). Thus the industry will “realise sustainable profits through strategic organisational performance and reduced operating costs” (Musgrave, 2011:260). This underlines the argument of competitive advantage achieved through sustainable event management.

Gorenak (2010) and Waddock *et al.* (2002) in Musgrave (2011:262) argue that

“the increased attention towards CSR from all the stakeholders is becoming stronger and is pressuring companies to transform their business practices in order to create additional (sustainable) values. Increasingly, these trends are influencing consumer behaviour and expectations. Correspondingly, these ecological, social and economic expectations are progressively being aligned, according to Hazlett *et al.* (2007), to quality management processes and the entire business function which evidences the notion of responsible decision making rather than just within rhetorical values and philosophy of organisations (Gladwin *et al.*, 1995; Govindarajulu and Daily, 2004).”

We can conclude that external pressures lead to responsible decision-making and sustainability operations. This is supported by Musgrave (2011: 258) who noted that

“Like many industries, events are subject to external market forces; investor pressure, governance activities, ratings, rankings and benchmarks-threshold competences. According to Getz (2007), what is fundamental to the context of sustainable event management (SEM) is that events are intermediaries and have many partners. Likewise, it is these important societal and economic roles which, again, influence the probability of reoccurrence and legacy.”

Musgrave puts the focus on complex supply chains and underlines the importance of taking these issues into account. Thomas and Wood also pointed out in their study of absorptive capacity/innovation in the meetings industry (2015) that there are several special characteristics of the meetings industry such as the diverse supply chains, many freelance employees etc. This leads to special aspects when it comes to implantation or usage of new and innovative models. This leads to the assumption that the understanding of innovations in the meetings industry in terms of governance and organisations has huge implications for the implementation of sustainable event management. According to Hall (2009:285), this is due to the fact that “while the shortcomings of tourism with respect to sustainability is reasonably well recognized, being able to change firm behaviours in terms of adopting more sustainable paths is not.” The main difference seems to be rooted here in the intrinsic or extrinsic motivation to develop sustainable management practices. According to Hall (2009:285) businesses might be unable to develop sustainable practices due to their form of operation in a specific cultural-economic system. The reason for that might be an economic system aiming to maximise shareholder value as the principal target of business performance, which can also apply to the events industry.

We found that this is in contrast to the understanding of sustainability described in earlier sections, where the emphasis was placed on balance and collaboration between stakeholders rather than on shareholders. According to Hall (2009:285), this view might help to “understand the reason behind the gap between sustainable theory and practice.” Studies and guidelines could “help to change the way in which meeting planners respond to consumer demand” (Musgrave, 2011:263), as well as the way in which the industry finds answers to “new legislation, the competitive environment and future glimpses into supply chain management and market trends” (ibid).

As mentioned, current figures from the *Meeting and Event Barometer 2014*, one of the most important industry studies in Germany, established by the EVVC – *European Association of Conference Centers / Europäischer Verband der Veranstaltungs-Centren e. V., German Convention Bureau e.V. and German Centre of Tourism (DZT)*, underscore the fact that German event planners attach significance to the topic of sustainable event management. German event locations saw in 2014 more than three million conferences, seminars and workshops as well as events with 371 million participants, and the number of international guests is still increasing (GCB, 2014). The report stated that 82% of sellers and 66% of the organisers believe that sustainable components are becoming increasingly important in the meetings and events industry (ibid).

However, statistics from the *degefest-Trendstudie 2013*, an annual study published by the University of Applied Sciences in Heilbronn, indicate the importance of sustainability in the event management process with only 42.2%. This is 20.2% lower than in 2008 and, in contrast to other studies, shows the heterogeneity of the meetings industry. More than half of the participants in this study admit to having only a general idea of sustainable event management. Moreover, many participants have neither a checklist (20.8%) nor a list of partners and suppliers employing sustainability practices (17.5%). 30% of respondents surveyed in the *amiando Green Events Report 2013* state that a lack of know-how is the main reason for not organising sustainable events, followed by financial concerns (24%) and time issues (19%).

But what motivates companies and organisations to enter optional codices? Oblasser and Riediger (2015:53) formulated a list of motives and reasons:

- Establish a learning and communication platform

- Help understand stakeholder demands
- Drive innovation
- Recruitment of potential future employees
- Give a competitive advantage
- Send a positive signal to employees, which can result in employees being more attuned to sustainability
- Increased motivation to include sustainability practices in business and private lives

The literature review reveals that only a few scholars, principally Getz, Köhler and Sherwood, consider the impacts of events to stakeholders or destinations. However, due to the complex supply chain and its intermediary nature, these impacts are varied and target-group-oriented communication is necessary in order to diminish barriers.

Raj and Musgrave (2009) underlined that a framework is needed for the increased usage in the meetings industry, but they indicate that this framework should be “adaptive to changes in market requirements” (2009:4). This research aims to prove what is applicable to business and association events, which practices are used throughout the industry and what the indicators of a sustainable meeting might be. The literature review thus far implies a gap between awareness and necessity of sustainable association event management in studies, reports and at industry conferences and de facto sustainably organized events. Here, Oblasser and Riediger underline the confusion in the area of sustainable management systems (2015:27), an issue which will be detailed in Chapter 3. Several driving forces such as industry guidelines, industry standards, customer demand and legislation in Germany resulting in extrinsic or intrinsic motivation to implement sustainable event management will be highlighted in Chapter 3 as well.

Implementing sustainable strategies within the events industry must be integrated thoroughly, holistically and multi-dimensionally due to the points discussed above. Foster and Jonker (2003) “present a notion of third-generation quality management where concepts of accountability and responsibility are evident within a traditional quality framework” (Musgrave, 2011:267). Here, the transparency and responsibility of event logistics and operation can, according to Foster and Jonker, “be delivered in equity and follow the ethical belief of give and take” (ibid). He continues that “for event organisations to deal with future expected and unforeseen circumstances management decisions and strategic choices will move from growth and quantity to one that pervades quality” (ibid) and that “waiting for definitive demand would weaken brands and risk long-term natural resource capabilities” (ibid).

In terms of tourism, whose literature was also reviewed with regard to sustainability, in order to achieve a broader view and due to the sectoral overlapping between tourism and the meetings industry, Mundt (2011:161) claimed that tourism to just one industry cannot be reduced due to the complexity of its stakeholder and supply chain. This is also applicable to the meetings and events industry with its own complex supply chain. Hence, it makes more sense “to regulate these particular businesses rather than tourism” (Mundt, 2011:161). This is also reflected by the lack of sustainable tourism development concepts at national, regional and local levels. Sustainability practices should – in order to be future-oriented – start earlier and include not only mobility and transport issues, but also architectural considerations.

These necessities lead to the emergence of international and national guidelines, standards, norms, tools and management systems. There are also external influences due to a specific orientation towards sustainability at the macro level (Fowler and Hope, 2007):

- Legal/institutional – laws, human rights, etc.
- Technological – new technologies
- Market – suppliers, competitors, customers, trends
- Societal – NGO's, society
- Cultural – attitudes, behaviour
- Environmental – nature, availability of resources

According to Musgrave (2011:262), sustainability is “a moral obligation that moves beyond the confines of CSR.” It is a moral argument which “realigns traditional management perspectives towards what is worth pursuing (responsible) from what works (efficiency)” (Gladwin *et al.*, 1995:878). Raj and Musgrave (2009, as cited in Musgrave, 2011:262) state that “astonishingly, there is an incomprehensible realisation emerging from the events industry where implementation of CSR and sustainable practices are considered without an understanding of the basic principles”. What is more, there are countless opposing views that exemplify the divisive nature of sustainability (Dresner, 2006; Ebner and Baumgartner, 2006). Sustainable development is presented in environmental versus economic growth (WCED, 1987).

There are different motives which result in voluntary use, but of course there are also binding rules and regulations. The next chapter will highlight those applicable to Germany, but also introducing a more international perspective as well. Font, Guix, Bonilla-Priego (2016:2) summarise in their paper that there are currently four alternative frameworks used to explain the reasons for CSR engagement. Due to the highlighted connections to sustainability, they will be presented here briefly, too.

The theory on reputation and risk management aims to avoid factors which could harm the brand (Bebbinton *et al.*, 2008 in Font, Guix, Bonilla-Priego, 2016), whereas the second theory offers a resource-based perspective of the enterprise and “suggests that companies act responsibly to maximise their competitive advantage in a way that cannot be imitated easily by competitors” (Russo and Fouts, 2003 in Font and Guix, 2016); however, this traditional form of value creation focuses on short term profits, not a holistic view (Porter and Kramer, 2011). These approaches can be linked to “responsive CSR” (Porter and Kramer, 2006), meaning they centre on generic social issues, often with a short-term focus (Font, Guix, Bonilla-Priego, 2016). They introduce the stakeholder theory as well, which claims that enterprises should adapt their actions to stakeholder requests (Wood, 1991), leading to a more strategic approach able to create shared value (Font, Guix, Bonilla-Priego, 2016). This shows a motivation based on the desire for “value creation and product differentiation” (Font, Guix, Bonilla-Priego, 2016), rooted in a proactive attitude towards stakeholders (Wheeler *et al.*, 2003; Porter and Kramer, 2006).

Another theory which might be applicable is capability analysis. This approach can help analyse whether there are self-centred or altruistic motives in order to implement sustainable event management (Schäpke and Rauschmayer, 2014). Capability analysis is a model primarily developed by Sen (1987) and Nussbaum (1993; 2000) as an alternative to understandings of human flourishing based on resource availability and well-being (Rauschmayer *et al.* 2011). Two aspects of this theory are of importance in connection to sustainable event management. On the one hand, the capability approach includes targets for actions that strive to benefit oneself as well as others. On the other hand, it connects needs, resources, and well-being.

These models can be adapted to sustainable association event management and will be used throughout the primary research in order to identify the motivation as to why German associations and PCO's aim to implement sustainable event management in comparison with the literature. This accomplishes objective number three. Thus having highlighted different forms of

motivation to implement sustainable event management strategies, the following chapter will cover potential drivers and barriers to sustainable event management by using psychological approaches such as the *Dragons of Inaction* (Gifford, 2011).

2.10 Drivers and barriers to sustainable event management

“If so many people are concerned about climate change, the environment, and sustainability, why are more of us not doing what is necessary to ameliorate the problems?” (Gifford, 2011a: 290-298).

If the behavioural gap between sustainability awareness and behaviour is to be minimised, possible barriers must first be identified. After highlighting motivational initiatives from governmental bodies, potential barriers and obstacles to the introduction of sustainable event management will be highlighted in the following.

Gifford (2011a) identifies structural and psychological barriers. The focus of his scientific research, however, is on the latter. Moreover, he focuses on environmental sustainability, though the results can be adapted to economic and social dimensions. Structural barriers such as poverty, rural domiciles with weak public transport, or the need for extra heating in cold winter months cannot be overcome by individuals directly. Gifford’s psychological barriers consist of seven categories with 28 types (see Table 13 and Appendix A2), called *Dragons of Inaction*.

In contrast to structural barriers, these can be overcome according to Gifford (ibid). If specific psychological barriers of a certain target group in terms of transport, catering or energy have been identified, these can be influenced by persuasive communication (see paragraph 2.11.4). Gifford calls for not only a better understanding of these barriers, but also more education about environmental problems and the most related and effective fields of action as well as more effective communication regarding these environmental problems (ibid).

Category of barrier	Type of barrier
Limited cognition	Ancient brain Ignorance of the problem Environmental numbness Uncertainty Judgmental discounting Optimism bias Perceived behavioural control/self-efficacy
Ideologies	Worldviews Suprahuman powers Techno salvation System justification
Comparison with others	Social comparison Social norms and networks Perceived inequity
Sunk costs	Financial investments Behavioural momentum Conflicting values, goals and aspirations
Discordance toward experts and authorities	Mistrust Perceived programme inadequacy Denial Reactance
Perceived risks of change	Functional Physical Financial Social Psychological Temporal
Limited behaviour	Tokenism Rebound effect

Table 13: The Dragons of Inaction, psychological barriers that limit climate change mitigation

Source: Gifford, 2011b:37-39

Table 14 shows different event-related barriers, which can be categorized according to psychological barriers. Some barriers can be assigned to several psychological barriers simultaneously.

Specific barriers of event management	Psychological barriers (category/type)
Excessive demand of the term sustainability	Limited cognition / ancient brain, uncertainty
Knowledge of the conflicting three dimensions of sustainability	Sunk costs / conflicting values, goals and aspirations
Impacts and results of sustainable actions are not visible and seem to be out of reach	Limited cognition / perceived behavioural control /self-efficacy
Green-washing and green fatigue	Discordance toward experts and authorities / mistrust
Anticipation of higher costs	Perceived risk / financial risk
Limited reliable information and missing usage of existing standards or guidelines	Limited cognition / uncertainty; Discordance toward experts and authorities / mistrust; sunk costs / behavioural momentum

Table 14: Barriers to Sustainable Event Management

Based on Musgrave et al. (2009:210)

This is similar to Hall (2012:122), who claimed that the “identified difficulties in achieving sustainability are very similar to the issues associated with assessing the impacts of mega-events.” These include the following (ibid):

- Temporality: Time scales that are often significantly greater than those of political and policy cycles, especially in democratic nations.
- Spatiality: Sustainability and impact problems are cross-boundary in nature and determination of boundaries is highly significant in impact assessment and management processes.
- Limits: The concept of sustainability suggests that there are limits to resource exploitation because of its capacity for renewal as well as opportunity costs.
- Cumulative: Most human impacts on natural and social capital are cumulative rather than discrete. Because of its size and the time span over which dedicated infrastructure is developed and then in use, the effects of mega-events should be regarded as cumulative.
- Irreversibility: Some natural, economic, and social capital cannot be renewed once it has gone, (i.e. the time scale for renewal is well outside the normal criteria of policy cycles). This has substantial implications for the opportunity costs associated with development.
- Complexity and connectivity: Sustainability problems are interconnected, meaning that issues cannot be easily separated in scientific terms although they often are in policy-making and the design of institutional arrangements.
- Uncertainty: Some aspects of sustainability are characterized by “pervasive uncertainty” making it difficult to judge the efficacy, implications and socio-economic impacts of policy measures.
- Ethical issues: Although ethical questions are integral to all policy choices, sustainability is complicated by the centrality of generational and intergenerational equity to the concept.
- Responsiveness of political systems: Because of the complex cross-boundary nature of sustainability, many political systems are unable to adequately respond and are constantly reactive rather and proactive.”

Additionally, Mair and Jago (2010:79) developed their own model of potential drivers and barriers of sustainability. In contrast to drivers (i.e. “managerial and personal values and attitudes, competitive advantage, cost savings, corporate social responsibility, improving image or reputation” (ibid)), they listed similar barriers and obstacles as detected by Musgrave *et al.* (2009): stakeholder pressure, high costs as a barrier or limited time. Media and culture are seen here as so-called “catalysts”, i.e. multipliers, which lead to an assessment of the “level of uptake of sustainable practices and facilities” from “very green” to “not green at all” (Mair and Jago, 2010:80). All these can be connected to the ones listed in the fundamental work from Gifford (2011b) and underline the idea from Figure 21 that it is a complex process from the will to change to an actual change in behaviour, attitude and pattern

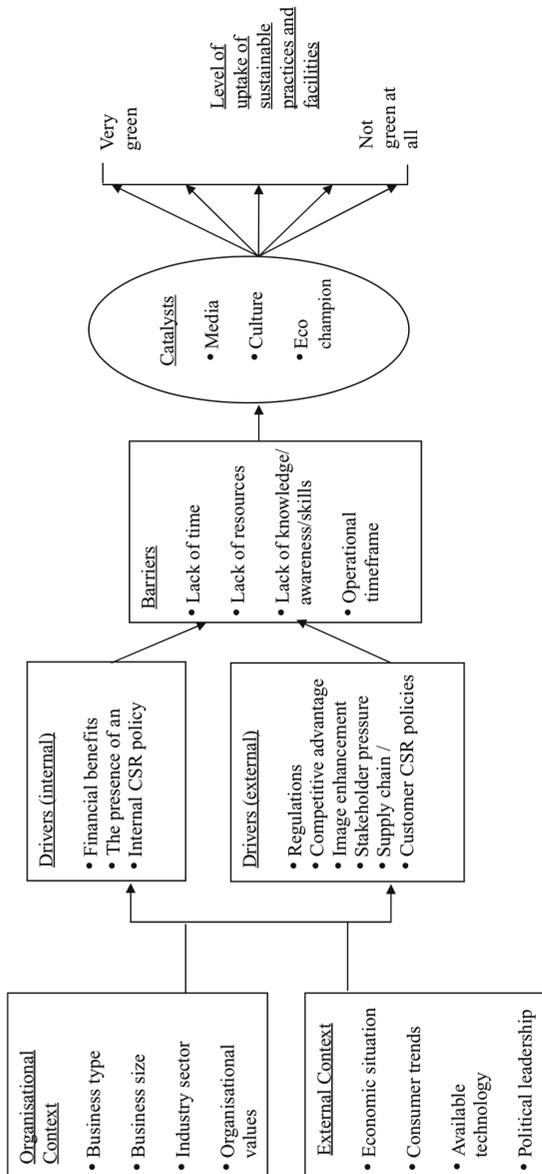


Figure 21: Proposed general conceptual model of the drivers and barriers of corporate greening

Source: Mair and Jago (2010:85)

Figure 22 displays the barriers identified in the study *Green Events Report* (2013). The main barrier for event organisers is missing know-how, correlating to limited cognition/uncertainty (30%). Twenty-four% argue that a limited budget is the greatest barrier and 19% a lack of time; 20% offered no reason at all (Spiess, *et al.*, 2013:8). More than half of the event organisers interviewed (56%) state that they do not have specific guidelines for sustainable management (*ibid.*). Shinde (2012:13) argues that a location close to transport opportunities as well as price

are essential criteria. Zanger (2012) arrives at the same result, stating that sustainability requires time and money that are often chronically lacking in the budget, resulting in a commitment to sustainability that is little more than “lip service” (Zanger, 2012:6).

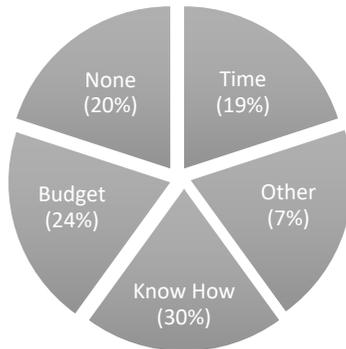


Figure 22: Barriers to sustainable event management
 Source: Spiess et al., 2013:8

Implementation of events is dictated by time pressure, the simultaneous coordination of many different stakeholders (hotels, suppliers, artists, locations and clients, for example), restrictive budget constraints, and the challenge and expectation to create unique experiences (Musgrave, 2009:6). These criteria impede the use of sustainable event management practices (BMU et al., 2015:4). Another barrier is for some organiser and event manager the creativity or design options, which might be hindered by environmental options as for example no high gloss paper or big water container instead of small glass bottles. Cosmetic companies desire events with beautiful presentations and style (Prenzel, 2011:42). Sustainability measures which run counter to this approach, for example abstaining from giveaways, reusable glass bottles, minimising catering, offering more non-meat options, encouraging the use of public transport or shuttle buses, may not be accepted by delegates or clients, creating another barrier.

The discussed reasons for why event organisers might be hindered in planning and implementing sustainable events might lead to the assumption that only basic contentions with the topic have taken place. Several official guidelines and standards (compare Chapter 3) as well as external consultants offer support with planning sustainable events. With the lack of general sustainability guidelines by more than the half of event organisers and professional congress organisers we might assume that management and/or decision-makers do not support these efforts. The commitment of higher-level management is, after all, essential for implementing sustainable events.

The common complaint about the higher costs for sustainable event management can be declared, too. Organic catering, for example, might be more expensive compared to conventional catering, but savings can be generated in other areas to compensate, e.g. waste and energy (Bowdin et al., 2012:166). Moreover, sustainable event management is not “tacked on”, but instead must be integrated into the event management process right from the beginning. This approach allows some barriers to be prevented. An example could be greenwashing, as suppliers are chosen carefully. This allows, for example, the scouting of a venue that offers a sustainability certificate. Integrated event management also communicates the planned sustainability measures to delegates and employees, informing them in advance and creating more transparency. Ideally, non-acceptance can be countered at this stage. Barriers such as missing know-how, can be seen as the potential for the willingness to integrate sustainable event management

(Köhler, 2014; Musgrave *et al.*, 2009; Zanger, 2012) in general (after generating this know-how in a workshop, for example).

While barriers might be overcome, there are also limits to sustainable event management, especially in the area of mobility (Wiemeyer, 2013:221) and the choice of suppliers within the value chain for events (Case, 2013:148). In order to travel great distances to an event (i.e. middle to long-haul flights), there might be no other alternatives than to “stay home” (Wiemeyer, 2013:221). Moreover, “getting supply chain partners to meet the requirements” (Case, 2013:148) might be difficult, too. For locations and accommodation, more and more sustainable offers are distinguished by means of a certificate, helping event organisers and clients choose venues and hotels, but the majority of locations do not offer transparent sustainability strategies, for example in terms of energy supplier or waste separation practices (*ibid.*). Chapter 3 will explore various standards, norms and certifications in greater depth.

Table 15 summarises the drivers and barriers discussed above.

Sustainable event management	Drivers	Barriers
	Sustainable event management can offer the advantage of a positive image, which benefits the organiser/client (Zehrfeld and Voigt, 2013:70).	More expensive procurement, more expensive (organic) food, CO ₂ compensated printing of materials (Zehrfeld and Voigt, 2013:221). If higher costs are passed on to delegates, it might lead to a decrease in participant numbers.
	Taking social responsibility/action may result in positive reactions. An improved image can enhance competitiveness (Zehrfeld and Voigt, 2013:70).	Initially higher workload, more time required for the one-time organising of a sustainable event, change requires time (Sloan, Legrand and Chen, 2009:5)
	According to Hauff and Kleine (2009:53), for the sake of competitiveness it is important for companies to support environmental protection. Pioneer effect can be exploited.	Barriers might include the supply chain (Case, 2013:148)
	New target groups, increased revenue (Zehrfeld and Voigt, 2013:221)	Mobility barriers (Zehrfeld and Voigt, 2013:221; Wiemeyer, 2013:221; Shinde, 2012). Possible solution offering shuttle services with hybrid or electric vehicles (Zehrfeld and Voigt, 2013:223).
	Decreasing negative impacts on the following generations / guilt-free conscience (ibid)	Another barrier is the fact that although meeting planners in countries such as Germany operate sustainably, not everyone benefits from these resources (Haas and Schlesinger, 2007:14).
	Savings (ibid)	Politics, support or restrictions
	A new consciousness can support new ideas and innovation (ibid)	Choice of suppliers
	Important: politics, support or restrictions	Higher costs presumed (Bowdin <i>et al.</i> , 2012:166), limited budget (Green Events Report 2013; Shinde, 2012; Zanger, 2012; Musgrave <i>et al.</i> , 2009) (Gifford: perceived risk, financial risk)
	-	Confusion about where to start, missing know-how (Green Events Report, 2013), leading to excessive demands (Gifford: limited perception, limited know-how, perceived inadequacy of programmes, limited trust)
	-	Too few or too many guidelines (Green Events Report, 2013) (Gifford: limited belief, perceived inadequacy of programmes)
	-	Corporate inertness (Musgrave <i>et al.</i> , 2009:10) (Gifford: limited perception, lack of knowledge, limited belief, mistrust, absorbed costs; condition of behaviour)
	-	Greenwashing (Musgrave <i>et al.</i> , 2009:10) (Gifford: limited belief, mistrust)
	-	Knowledge of the target conflicts among the three sustainability dimensions (Gifford: absorbed costs, opposed targets and requirements)
	-	Impacts and results of sustainable behaviour are not always directly visible and thus seem unapproachable (Gifford: limited perception, perceived lack of influence)

Table 15: Drivers and barriers for sustainable event management

Based on Zehrfeld and Voigt, 2013; Köhler, 2014; Oblasser and Riediger, 2015; Musgrave *et al.*, 2009 and 2011; Green Events Report, 2013; Bowdin *et al.*, 2012; Zanger, 2012; Shinde, 2012; Haas and Schlesinger, 2007; Sloan, Legrand and Chen, 2009:5)

2.11 Discrepancy between consciousness and behaviour

Some 20 years after the World Climate Summit in Rio de Janeiro the majority of the world is at least aware of the topic of sustainability (Musgrave *et al.*, 2009:1). Many have recognised that environmental changes such as global climate change, deforestation, water shortage etc. are primarily anthropogenic, i.e. related to human consumption, land usage, mobility or energy use (Kruse-Graumann, 2014:187). There is a national and international consensus that a “balanced relation between industry and society with the ecological system” is essential to ensuring that the three systems of the sustainability concept will exist for future generations (von Hauff, 2014:33).

The survey *Ecological Awareness in Germany*, which is conducted every two years by BMU and UBA, indicated that 35% of interviewees consider environmental and climate protection one of the most important issues (#2 overall, following economics and financial politics with 36%) in Germany (BMU *et al.*, 2013:10). That is 15% more than in 2010 and the highest value since 1996. Moreover, 64% expected more from the German federal government in terms of environmental and climate protection (*ibid*). It is worth mentioning that a large share of the population is aware of the unpreventable target conflicts between protecting the environment and tackling economic and social challenges at the same time (*ibid*). This leads to the assumption that there is a general awareness for the three interconnected dimensions of sustainability. Despite the inevitable target conflicts expected in environmental politics, the demand for more resolute action remains high (64%). The study further reveals that many people demonstrate environmental awareness in their daily lives: they save water and energy where they can and they salvage and sort rubbish for recycling, for example (BMU *et al.*, 2013:10). Beyond altruistic motives, saving money is at least as important or an even more important consideration for individual environmental awareness (*ibid*). The study results imply a general understanding for the need of sustainable activities in society as indicated above in relation to the undermining of the term “sustainability”.

This can be seen as a positive outcome, but it must be considered that, on the one hand, the study implies interviewees have a correct understanding of (three-dimensional) sustainability, while on the other hand there are many who are unable to understand the scope of the term and its implementation. Comparable results were found in the Nestlé study entitled “So is(s)t Deutschland” (roughly translatable to “Germany is what it eats”) from 2011 (Nestlé, 2011:1, 4, 11). Some 70% state they have heard the phrase sustainability, but only half are able to define it in at least a rudimentary fashion, describing it essentially as “something long-term, with on-going impact” (*ibid*).

Another barrier arises from the discrepancy that exists between consciousness and behaviour (Trilling, 2013:256), i.e. sustainability awareness does not actually produce sustainable behaviour. Two extremes can be identified with behaviour. Von Hauff (2014) refers to one as the “Dilemma of Schizophrenia”, meaning people and enterprises tighten (and do not change) their economic behaviour vis-à-vis production and consumption despite knowing their behaviour harms an already overstressed environment (von Hauff, 2014:33). This controversial behaviour is also proven by the BMU study: 80% of interviewees are interested in regional products and 59% are convinced of fair-trade goods, but this is not reflected in their shopping behaviour. The majority state that their purchases are motivated by quality, freshness and favourable prices; regional and fair-trade goods are seen as too expensive (*ibid*). The other extreme behaviour becomes obvious when it is a matter of course for enterprises to act sustainably: due to their conviction, they invest more intensely than required by environmental laws or social standards. In other words, this action is not born of a trend, but of a belief. These types of companies treat

their employees with respect, pay fair wages (Ramge, 2010:14). This behaviour is rooted in corporate social responsibility and was discussed previously.

Between these behavioural extremes – ignorance at one end and pure, altruistic CSR at the other – several behaviour shapes can be found such as limitations to alibi action, i.e. greenwashing or low-cost activities such as waste separation (Kruse-Graumann, 2014:213), one-dimensional modes of behaviour or, in terms of events, the direct compensation of CO₂ emissions. Kruse-Graumann (2014:188-190) reveals that humans are not only initiators of environmental changes which may potentially harm themselves (in terms of health, food production, physical and mental well-being), but also “agents of change”: humans are “threefold subject of action when it comes to the scientific and social search for solutions and management strategies” (ibid), in order to minimize the discrepancy between consciousness and behaviour continuously and, in a following step, to reach a holistic sustainable acting.

The asserted discrepancy between sustainability consciousness and behaviour – also known as the behavioural gap – has been the focus of numerous studies in environmental psychology for several years. This dissertation’s work on the discussed topics here is therefore connected to existing models of environmental psychology to identify an informative basis for closing this gap. This forms the starting point for the following chapter and leads back to the objective of this work formulated earlier: the development of solutions for minimising this behavioural gap in order to morph the current sustainability trend into actual commitment. The preceding sections have shown that the course is set: existing awareness exists around the world, demand is growing for sustainable events, event budgets are also growing, and several guidelines, certificates and awards for sustainable event management have emerged (see Chapter 3). Most importantly, however: clients, employees and delegates have begun expecting more sustainable management.

2.12 Factors for minimising the behavioural gap in sustainable event management

The existing behavioural gap in the association events industry must be minimised continuously and, in the long term, eliminated completely. Naturally, in order to overcome the associated challenges a “behavioural change is necessary” (Kruse, 2007:112). A methodological solution approach leads quickly to psychology, or two sub-fields in particular: environmental psychology and social psychology. The former analyses the impacts between humans and their physical and social-cultural environments (Hellbrück *et al.*, 2012:13), as well as the question of how environmental protective behaviour can be explained and supported (Hellbrück *et al.*, 2012:99). Social psychology evaluates how thoughts, feelings and behaviour can be influenced (Aronson *et al.*, 2014:217ff.). Meetings and events can have a supportive effect here, as they are inherently social (exchange with other attendees, talks from experts and multipliers).

A social-psychological emphasis involves the analysis of attitudes, as they are often the foundation for human behaviour: what are attitudes and where are they derived? How can they be changed? (ibid) Explanation attempts are rooted in general social-psychological behaviour models, for instance the Theory of Planned Behaviour from Fishbein and Ajzen (1991), Norm-Activation-Mode from Schwartz and Howard (1980), the environmental-specific behavioural model from Fietkau and Kessel (1981), or the empirical grounded structural models (Hellbrück *et al.*, 2012:100).

This connects into the empirical part of this research study. Hence, this chapter will concentrate on factors of the concept of integrated sustainable event management which also help to minimise or even eliminate behavioural gaps in social-psychological and environmental-psychological perspectives. The parameters shall also be analysed in relation to one another, not separately, in order to minimise the behavioural gap. The criteria will be supported by scientific models and operationalised for the evaluation of the empirical results.

2.12.1 Action-oriented forms of interventions

The indicator which helps to close the behavioural gap is the application of “action-oriented” forms of intervention. These change the conditions on which behaviour is based (e.g. incentives) as well as the conditions following the behaviour (e.g. rewards). This scheme is rooted in the environmental-specific model put forth by Fietkau and Kessel (1981) (see Figure 23). It assumes that behaviour must be changed in order to achieve a change in attitudes, not vice-versa (Fietkau et al., 1981:11).

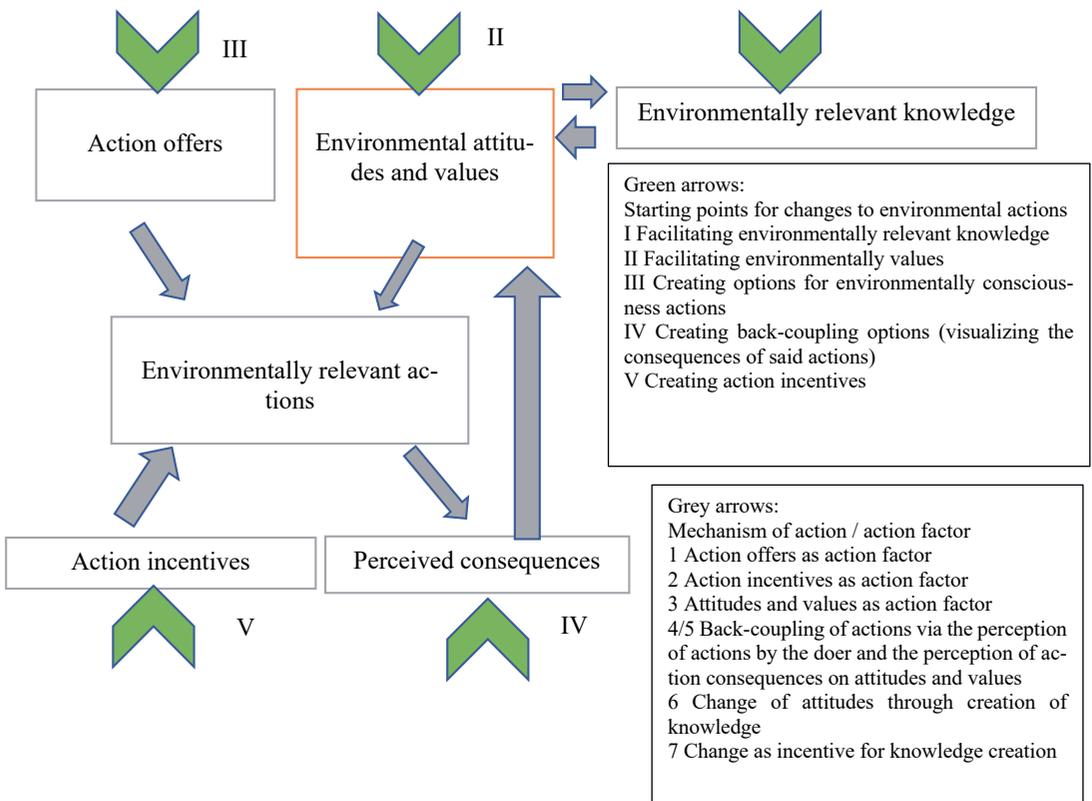


Figure 23: Impact schema for environmentally conscious actions
 Source: Fietkau and Kessel (1981), in Hellbrück et al., 2012:105

The model shows three direct and two indirect levers for reducing environmentally harmful behaviour (ibid): existing behaviour, connected behaviour incentives, and environmentally connected attitudes and values are direct levers. Observed consequences of one’s own actions

provide indirect leverage, as this influences approaches and values and thus – in a feedback loop – indirectly influencing behaviour. Environment-related knowledge also operates indirectly – interdependently with values and attitudes – on environment-related behaviour. These five components can therefore be seen as angles for changing environmental behaviour (yellow arrows). The models show that “only the connection from approaches, behavioural incentives and offers and the visibility of consequences of own action make a desired behaviour probable” (Fietkau *et al.*, 1981:10).

Other models concentrate only on knowledge as leverage; however, this can be seen in connection to environmental behaviour as “too cognition based” (ibid). Kruse-Graumann (2014:202) also states that actual scientific results confirm financial incentives and offer attractive possibilities for action and persuasion as leverage. Thus, these represent a flow reversal: “from acting to knowledge” (ibid). The five lever described above will be examined in greater detail with regard to mobility in sustainable event management. In the empirical study, this is connected to event delegates.

As shown, simple knowledge transfer is not enough for environmentally related behaviour, but it is essential and must be applied together with other behaviour-oriented levers. According to the model of Fietkau and Kessel, knowledge influences behaviour only indirectly in exchange with values and attitudes (see Figure 23). Hence, new knowledge can only alter an existing attitude (i.e. “Since I am aware of the fact that a journey from Cologne to Hamburg by car creates three times greater CO₂ emissions by train, I will opt for the train.”) and, conversely, attitudes and values also influence information and knowledge (i.e. “There are so many polluters in industry that I fail to see why I should bother trying to decrease my CO₂ emissions by not taking the car to Hamburg.”).

Rambow (1998) differentiates between precise behaviour and abstract background knowledge (Rambow, 1998:7). Using the examples above, when the train is selected as an alternative to a car, it is also very essential to know how to purchase a low-priced ticket (e.g. using train passes, early booking sales, event sales) and how to reach the train station and/or event location conveniently. Background knowledge, for example that a train ride produces only 11 grammes CO₂ per person and kilometre compared to bus (30 grammes) and car (137 grammes) (Deutsche Bahn, 2015b:2), is not necessary for booking a ticket. Background knowledge helps create specific readiness for action (ibid). Knowledge transfer should be target-group-oriented, i.e. adapted according to the pre-existing knowledge of the specific target group.

However, this action-oriented model is not enough to develop target-group-oriented communication that focuses on “what the target group knows, thinks, feels and really does related to the environment and its pollution” (Maloney *et al.*, 1975:1). Therefore, a more detailed analysis of the lever “umweltbezogene Einstellungen und Werte” – environmentally related attitudes and values (Figure 23) – is required.

2.12.2 Determining sustainability consciousness

The sections above discussed the existing discrepancy between sustainability consciousness and sustainable behaviour – the behavioural gap – in the context of society as a whole and the event industry in particular. Sustainability awareness was detected without defining the term. The phrase “consciousness” is complex and, hence, will be defined and operationalised here. The aim is to determine and measure the awareness of sustainability of event stakeholders such as delegates, organisers and event managers. This is required for the factor target group-oriented communication (compare 2.13.3).

The model from Spada (1990) forms the theoretical background for this. It consists of five factors affecting action and appears to be applicable, as it is based on the multi component model of attitudes and therefore integrates not only the previously mentioned importance of emotions, but also environmental consciousness. With the current definition of sustainability awareness, the cognitive component, i.e. the behavioural intentions and manifested behaviour, are mostly neglected (Hellbrück *et al.*, 2012:90). Another reason is that this model is still valid in environmental-psychological practice (*ibid*). Spada also regards environmental awareness as attitude (Spada, 1990:624), which means that the model reflects what is referred to as “attitude strength” (narrow, middle or wide) in social psychology: the bigger the scope of meaning, the stronger the attitude and the more likely environmentally relevant behaviour will be. Felser (2014:107) connects a strong attitude to three criteria: persistence (stable over time), resistance (stable against influences), and behavioural predictions.

		Narrow scope of meaning	Middle scope of meaning	Wide scope of meaning
Affective	Environmental experience and –consternation	X	X	X
Cognitive	Environmental knowledge		X	X
Affective	Environmentally oriented values		X	X
Conative	Environmentally- related behavioural intentions		X	X
Conative	Environmentally manifested behaviour			X

Table 16: Different scopes of meaning for environmental consciousness

Source: Spada, 1990:623, as seen in Hellbrück *et al.*, 2012:90

Based on the existing discrepancy between sustainability awareness and behaviour (as revealed in the literature review and the primary data research, which will be shown in Chapters 4 and 5), we can assume a weak attitude towards sustainability. The aim is to achieve a strong attitude (wide scope of meaning) towards sustainability through persuasive communication. The application of the different attitude components is not a part of the original model, but has been subsequently added in order to visualise the integration of the multicomponent model.

In order to measure sustainability awareness / interviewees’ attitude towards sustainability, the measurement scale *Ecology Scale* from Maloney and Ward (1975) and the German equivalent from Kley and Fietkau (1978) will be used for orientation. Both reflect the different meanings put forth by Spada (compare Table 16). Kley and Fietkau (1978) expanded the scale with subscale responsibility. The five subscales of the *Ecology Scale* are displayed and illustrated in Table 17.

To determine the attitude towards sustainability, the items must be transferred to numbers, which will be done through the developed measurement system. Table 17 illustrates this with two examples. The complete measurement system of all subscales and items can be found in Appendix A12.

Measurement item/sub-scale	Item	Answer options	Points
Personal consternation	Air pollution from cars is exhausting.	Does not apply at all	0
		Usually does not apply	1
		Somewhat applies	2
		Fully applies	3
Readiness to act	I would be ready to...	...accept reduced meat catering.	1
		...accept beef-free catering.	2
		...accept vegetarian catering.	3
		I am not ready to abstain from meat.	0

Table 17: Sustainability awareness

Based on Kley *et al.*, 1979; Maloney *et al.*, 1975

Table 17 shows the scheme in which the evaluated average values of the different subscale items can represent numbers, producing a measurement scale for gauging attitudes towards sustainability.

2.12.3 Target group-oriented communication

Communication is a central instrument for convincing people to adopt more sustainable behaviour (Kruse, 207:111). Persuasive communication as part of the INV (integrated sustainable event management) was discussed earlier; the model will be presented in detail in Chapter 5. According to Mosler and Gutscher (1998), communication belongs to the cognition-oriented forms of intervention and aims to change inner cognitive factors (for example: awareness of financial benefits through sustainable attitudes). In order for it to be effective, i.e. transforming non-sustainable behaviour holistically, persuasive communication must be target group-oriented. Target group-oriented communication is adapted to individual conditions such as tailored approaches, values, knowledge, habits and attitudes (lifestyles) of the target group (*ibid*).

Knowledge of these individual conditions is an essential requirement for changing behaviour: “We must determine what ... (they) know, think, feel and actually do regarding ecology and pollution” (Maloney *et al.*, 1975:1). The multicomponent model of attitudes will be used to gain more information (compare Figure 24). It illustrates that the formation of attitudes, for instance regarding the topic of environmental sustainability, requires three components: cognitive, affective, and behaviour-based experiences. Together these form our overall attitude (Jonas *et al.*, 2007:189ff.). However, we must consider that not all attitudes grow in an analogous manner (Aronson, 2014:218) and all three components need not be involved to the same degree. The aim is to determine the behavioural origins of a target group in order to adapt communication efforts appropriately. This aim can be achieved by asking whether the attitude of interviewees regarding sustainability is at its heart more cognitive, affective or behavioural/conative.

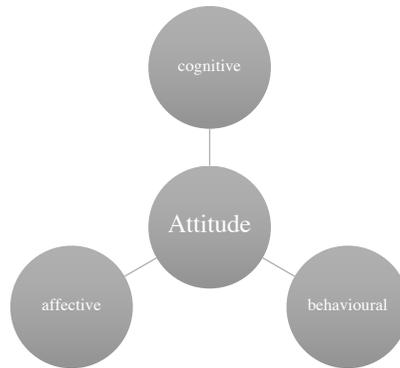


Figure 24: Multicomponent model of behaviour

Source: Rosenberg and Rovland (1960) as cited in Jonas *et al.*, 2007:190

The cognitive behaviour component describes thoughts, beliefs and characteristics which one connects with a specific object or topic (here: sustainability) (Jonas *et al.*, 2007:189). Here, relevant facts, figures, performances and objective advantages and disadvantages are in the focus (Aronson *et al.*, 2014:218). When looking at mobility as an aspect of ecological sustainability, the information that taking a car will create three times as much CO₂ as compared to a train might help to influence a decision (refer to Chapter 5).

In contrast, the affective behavioural component is not rational, but rather based on feelings and values connected to the object behaviour. Sensory reaction, for instance the taste of organic beef and or the aesthetics of a car, can be used to justify affective attitudes. When a die-hard environmental activist chooses not to own a car due to its higher CO₂ emissions, this attitude can be regarded as affective, as it underlines his/her value system (negative affective attitude towards ecological sustainability). In the same token, the attitude of someone who enjoys owning and driving a fast car is also justified affectively (positive affective total attitude). An affective attitude can complement cognitive aspects, thus strengthening the overall attitude: If the environmental activist perceives car exhaust fumes detrimental to health and worries about children being harmed from pollution, this can be regarded as an affective attitude.

The conative attitude component (behavioural component) is based on the observation of one's own past behaviour towards an object or topic (*ibid*). Darly Bem (1972) developed the Theory of Sense of Self, which indicates that humans are not able to monitor their attitudes towards specific topics, but need time to observe behaviour (*ibid*). The requirement is that the early attitude is unambiguous or that there are no other plausible explanations for one's own behaviour. If the behavioural origins for a communication strategy that targets a specific group are detected, they can be used for more effective communication à la "fighting fire with fire" (Aronson *et al.*, 2014:4).

We see that cognitive-based attitudes can be changed more easily by rational arguments, affective-based attitudes by emotional appeals, and conative-based attitudes by offers and incentives (*ibid*). This underscores the significance of emotions in sustainability communication, as discussed previously. Empirical, environmental-psychological findings show that environmentally protective actions are not primarily based on environmentally specific thinking, but also on emotions (Hellbrück *et al.*, 2012:103). As Trillig put it: "Emotions are not to be underestimated

for positive behavioural changes” (2013:256). Indeed, emotions can help form the necessary conditions for concentrating on factual topics and enabling connections (Krause, 2007:53).

The fifth factor for minimising the behavioural gap is the *Theory of Planned Behaviour* from Fishbein and Ajzen (1991). This is one of the most widespread socio-psychological models, and it analyses the discrepancies between attitude and behaviour (Figure 25) (Gifford, 2011a:297). It is regarded as an explanatory approach.

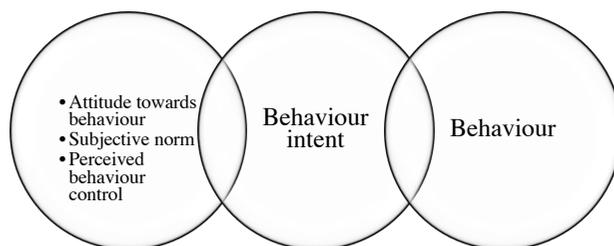


Figure 25: *Theory of Planned Behaviour*

Source: Ajzen, 1991 as cited in Aronson, 2014:240

Behaviour intention is connected to a strong attitude, achievable through persuasive communication. The theory illustrates that the behaviour intention is the best predictor for behaviour, provided there is sufficient time for reflection (Aronson *et al.*, 2014:4). The predictors also influence target group-oriented communication; thus this model will also be taken into account for research purposes in this dissertation. Behaviour intention itself depends on the following three variables: the intention towards a behaviour, the subjective norm and the perceived behaviour control. The first variable, intention towards a behaviour, denotes a specific (not general) intention of the target group towards a behaviour. An example would be the intent to travel specifically by train to events in the past year, but not the intent to take only public transport in general. Studies show a much higher correlation between intention and behaviour when the intent is more specifically formulated rather than generally formulated (Aronson *et al.*, 2014:241).

The second variable, subjective norm, can be used to leverage behavioural options. An example here would be the assumptions of interviewees of how other persons they respect (e.g. colleagues) would judge the relevant behaviour such as arriving by car to the detriment of the environment (*ibid*). According to Rambow (1998), stable attitudes (e.g. travelling by car to events) can be explained via the behaviour of the social attachment figure (Rambow, 1998:5). This can help leverage more sustainable behaviour for a specific group of interviewees, as experts or management can act as multipliers and achieve a social process of diffusion (*ibid*).

The third variable, perceived behaviour control, refers to “the easiness which humans estimate to need in order to execute the behaviour” (Aronson *et al.*, 2014:4.), for example a journey by train. Opponents of the theory say that this model does not meet the specifics of environmentally

related behaviour (Hellbrück et al., 2012:101). In response to this critique, this model will be combined in a complementary fashion with the model of Fietkau and Kessel (Figure 23).

2.13 Summary and conclusions of Chapter 2

As shown in the literature review, the term “sustainability” is becoming increasingly more important across the board, but in the events and meetings industry in particular. Though its importance is increasing, this fact that few events are organised sustainably shows it has a long way to go. This discrepancy is partly due to the gap between sustainability awareness and behaviour (Oblasser and Riediger, 2015). According to Balderjahn (2013), the biggest issues are habits and customs, a barrier which can be found among the Dragons of Inaction described earlier in this chapter and which must be removed or diminished if this gap is ever to be closed.

This endeavour is particularly difficult to achieve for the events industry due to the wide variety of stakeholders involved. Establishing a holistic sustainability concept requires sensitising and training all stakeholders accordingly. New ideas are needed, for example how companies and associations can be supported and motivated, and communication plays an essential role here (see Chapter 3). Oblasser and Riediger (2015) argue for the use of financial relief for sustainable behaviour. Moreover, management should establish specific stimuli, for instance incentives for employees and suppliers.

Another aspect of special importance in sustainable event management is exploring best practice examples. This can inspire organisers to adopt sustainable measures for their own events. Organisers should also be aware of the fact that ecological necessity can be connected to economic opportunity (Wiemeyer, 2013). In other words, sustainably organising an event can produce a competitive advantage, a view supported by Eisermann, Winnen and Wrobel (2014).

Anchoring sustainability in the bedrock of the events industry will require a willingness to change in everyone involved. Locations and companies cannot shoulder all the responsibility themselves, instead every stakeholder must be aware of their own responsibilities towards the environment and society. Doppke *et al.* (2017) underline that one shall consider that the offer follows the demand.

The literature review underscored the necessity of change in favour of sustainable events. Our contemporary understanding of the concept of sustainability has evolved from *Our Common Future*, i.e. the Brundtland Report (WCED, 1987), and “is concerned with ensuring that human development does not overwhelm the ability of resources to renew themselves” (ibid). The aspects of sustainable development should can be seen as dynamic and industry-specific.

An association that plans to transform their events into sustainable ones touches upon corporate social responsibility as well, a voluntary entrepreneurial behaviour and an answer on the consciousness of the *triple bottom line approach* introduced above. Minimising or even eliminating non-sustainable behaviour in the events industry is reflected in the core principles of CSR itself, illustrated in Figure 26:

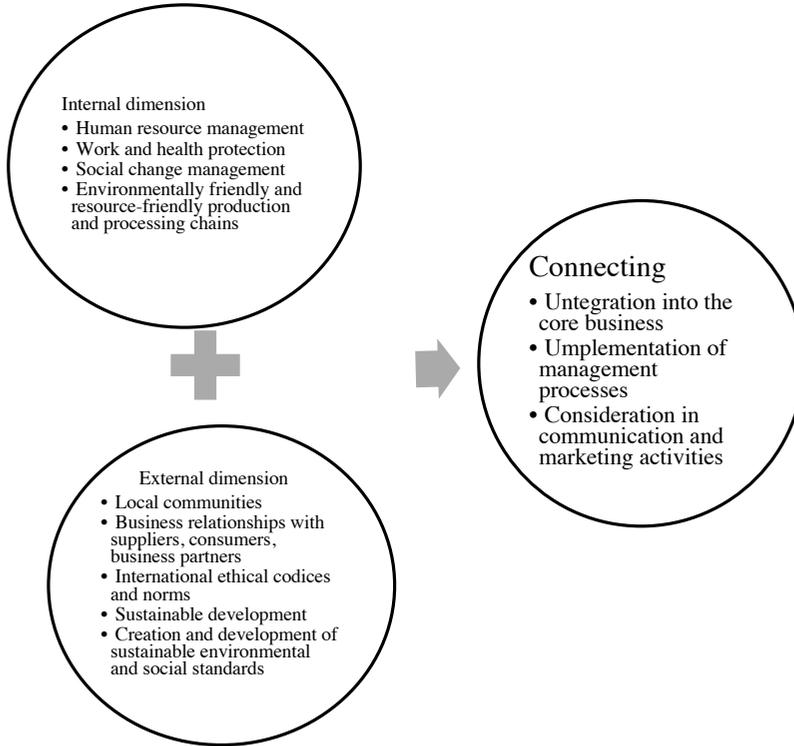


Figure 26: Internal and external dimensions of CSR

Source: Czymmek et al., 2009 as cited in Baumast and Pape (eds.): 245

These core principles are also reflected in the definition of CSR put forth by the EU and referenced in 2.2: CSR is “a concept that allows the companies to integrate social and environmental concerns into their stakeholder relationships and their entrepreneurial behaviour on a voluntary basis” (European Commission as cited in Czymmek et al., 2009:243). The focus of CSR lies therefore in voluntary ecological and social measurements as well as in a stakeholder-focused approach. In other words, stakeholders influence a company’s or association’s success and there are mutually beneficial relationships to be found between them (Czymmek et al., 2009:242). The strategic focus and the operational execution of events management is based on a stakeholder-focused approach as well.

We saw from the literature review that nowadays nearly no organisation is able to survive without some type of CSR or sustainability statement (Wagner, 2012:19) in order to deal with current challenges, innovation and customer requirements, and environmental pressures (Stephan et al., 2013:198). The study *The Value of CSR in the Meetings Industry* (2011) shows that 90% of global event organising agencies and PCO’s (professional congress organisers) take sustainability measures into account, though only 40% actually have a formal CSR guideline. The study also states that “consumers are driving companies to environmental and social responsibility” (Musgrave et al., 2011:3). Seventy-seven% of all event delegates say that they are pleased to buy products from socially conscious companies and 68% are even willing to pay more for products as a consequence (Musgrave et al., 2011:16ff.). 63% of German event

delegates find the CSR image of a company very important, but in an international comparison the Germans are only on the second-to-last rank (ibid).

This chapter provided a basic discussion of terms and definitions for sustainability, sustainable development and CSR. Moreover, it also introduced the meetings and events industry and clarified the object of research. It highlighted corresponding environmental and social-psychological factors which might help minimise the gap between sustainability awareness and sustainability behaviour. The primary research will highlight these as well. The ultimate aim is to develop a sustainable event management model for implementing, assessing and optimising association events. It will also include recommended action for target group-oriented communication within associations striving to shift their operational event management towards sustainable event management. This model will first be introduced in Chapter 3.



3 Assessing sustainable events

Chapter 2 introduced the background of the study, i.e. the meetings and events industry. It highlighted the impacts events can have on various stakeholders and described factors for minimising the behavioural gap between sustainable awareness and behaviour. Chapter 3 will provide a deeper look into the events industry by discussing applicable certification schemes, standards and norms, before later introducing models of sustainable event management.

3.1 Systematisation of certifications in the events industry

As has been shown, the meetings and events industry is highly dynamic and complex and influences natural habits and local inhabitants in several ways. Monitoring events through sustainable indicators will allow for the assessment of performance and effectiveness, resulting in benchmarking opportunities. The study at the heart of this dissertation aims to develop a new model to facilitate the integration of an inclusive model for assessing the sustainability of events and thus must first review existing models for assessing sustainable events management performance. The next step is to evaluate them via a range of selection criteria derived from authors found in the literature review as well as expert interviews with stakeholders and a survey of event participants described in Chapter 4. This should provide a solid basis for deriving a novel model that identifies and unites key indicators from a multi-dimensional set of possibilities. The resulting assessment model can help to monitor and steer the performance of sustainable association events.

The opportunity to evaluate, steer and optimise sustainability performance is highly desirable in sustainable event management. As the literature has shown, several models for analysing event impact as well as the performance of specific aspects and elements related specifically to sustainable event management have already been developed in response. However, there is no consensus with regard to these models, nor a comprehensive and integrative model for associations across all types and aspects of sustainable event management. As stated previously, the purpose of this research is to critically examine and compare existing frameworks for sustainable event management in order to identify specific indicators. Ideally, this will support the development of a novel model in order to facilitate the process of implementing, assessing and enhancing the sustainable performance of association events.

We learned in Chapter 2 that external pressure from policies or legislation often leads to the implementation of sustainable event management practices. The following chapter presents a critical literature review on practices applicable to national and international levels. The “responsibilities of businesses towards society and the natural environment humans live within are defined by the economic, legal, ethical and discretionary expectations that society has of organisations or associations” (Carroll, 1999; Carroll and Shabana, 2010 in Font, Guix, Bonilla-Priego (2016:2)), which is also due to the meetings industry. In fact, event measurement is becoming increasingly important due in part to the industry’s enormous impact in terms of sustainability (Köhler, 2014). The organisation, planning and implementation of sustainability aspects is not target oriented; an impact analysis is necessary to indicate, measure and optimise the impacts that occur. The literature review revealed that controls for the sustainable event management process are often neglected (Köhler, 2014; Dregner, 2008:79), though impact control for corporate success is regarded just as important as planning and realisation in economic fields. This phenomenon is also applicable for educational events, meetings, conferences and congresses, often due to time or financial constraints, or a lack of knowledge or experience with

valid instruments and methods for analysis (Schlenker, Getz and Foley, 2010:1; Köhler, 2014; Getz, 2018; Getz, 2019).

According to Oblasser und Riediger (2015:26), the events industry is on the “way to a tipping point in terms of sustainable event management, comparable to social media a decade ago.” Many are aware of this new movement, but are not able to judge the consequences or implement it themselves. They will claim that “attitude matters”, pointing to the fact that regulation itself is not enough: as Hall (2012) demands, behavioural change is crucial for success. As shown by Thomas and Wood (2015), innovation and change are difficult. Scholars such as Jones (2014), Oblasser and Riediger (2015) or Holzbaur (2016) argue that the gap between theory and practice in sustainable terms is enormous. “Ecological consciousness” must be rooted in both logic and emotion before it can be formed into a habit, as was shown in Figure 20 from Oblasser and Riediger (2015), entitled “The Will to Change”. Jones (2014:349ff.) predicted that event organisers, “be they community, corporate or government, are all embracing the opportunity to show sustainability-in-action at their events, i.e. to reduce the impacts of their event’s production, and to enhance the enduring legacies.” “Reputable and independent assessment and recognition of commitment to sustainability and verifiable performance outcomes, the industry is turning to certifications, standards and awards programmes” (ibid). In addition, Pelham (2011:191) argues that “national and international frameworks assist in the transparency of such processes and allow for equal and fair decisions to be taken.” Musgrave argued that “policies are urgently required to ensure that the event tourism multiplier effect is cascaded down to all aspects of the host community” (Musgrave, 2011:270).

The literature review revealed scholars are in agreement about there being not only a lack of comparative approaches in sustainable events management, but also a lack of sustainable awareness or, at the very least, that this awareness produces sustainable behaviour only seldom. This is exacerbated by confusion regarding standards, certifications and fundamental terminology as discussed before, combined with a lack of sharing best practice examples and industry-and-event-characteristics such as complexity, dynamics and the fact that services in general are not storable, but must be used during production.

Smith-Christensen (in Raj and Musgrave, 2009: 26) claimed that “as within the tourism industry, events are increasingly looking to certifications and brands to strategically establish and strengthen stakeholder partnerships.” While these may indicate taking responsibility, they do not necessarily ensure an event’s contribution to sustainable development. A lack of transparency is also generally a problem.

However, certain actions on the part of governments and lobbies can stimulate behavioural change. Oblasser and Riediger (2015:27) suggest the following:

- Tax discounts for companies to reward sustainable behaviour
- Incentives for employees and suppliers
- Knowledge transfer
- Nudges³
- Paradigms/ideals
- Emotional participation

If this kind of external pressure for sustainable event management, it might be seen as questionable in the long-term as it might be not intrinsically motivated. Nevertheless, it is an

³ Approach from behavioural economics from Thaler and Sunstein, considered more effective than commands and restrictions.

effective way to provide the initial spark. Accordingly, Raj and Musgrave (2009:6) argue that “as an absolute message of purpose, a sustainable policy [...] can provide clarity to many different stakeholders.” Compliance requirements along the supply chain (including procurement) can be imposed to contribute towards sustainability. Gifford’s *Dragons of Inaction* discussed in Chapter 2 highlighted additional behavioural challenges preventing the industry and its clients from taking more action. Raj and Musgrave (2009 in Musgrave, 2011:259) stated that “although the concept of sustainability has been in existence for over a century, recent drivers, such as changing political, commercial environment and cultural expectations have elevated ‘sustainability’ as a political priority and business requirement of event management.”

Several guidelines, manuals and standards have been developed in response, detailing methods and approaches for organising environmentally-friendly events and meetings (Köhler, 2014). The majority of these are practice-oriented publications, often from the events and meetings industry itself; scientific studies covering this topic are rare (ibid). Similar to the confusion surrounding the various definitions of sustainability discussed in Chapter 2, there seems to be uncertainty with regard to the many certifications, labels, norms, standards and guidelines available (Jones, 2014; Sherwood, 2007; Schreiber, 2012). Elizabeth Henderson, Director of Corporate Social Responsibility at MPI, points out that “as sustainability is becoming increasingly important for the event industry, individuals, companies and countries are setting multiple and differing standards” (Henderson as cited in Hall, 2012:121). Choosing the “right one” is difficult. Appendix A9 offers a detailed list of currently available certifications.

When differentiating between certificates, the main criteria is the object of certification: is the sustainability performance assessment limited to companies or products, or is it also possible to certify projects such as events? (Oblasser and Riediger, 2015:63) Moreover, the different measurement and/or certification systems on which the individual seals are based can be further subdivided by adaptability. “Closed systems” have a defined set of criteria which must be observed and fulfilled. These criteria are difficult to adapt to things such as individual events or processes within an organisation. Examples of closed systems are *Green Globe* or *Certified Green Hotel*. “Open systems”, on the other hand, offer the most flexibility for processes and projects. They are mostly management systems with which the tasks described in the norms *EMAS*, *ISO/DIN 20121* or *14001* can be achieved.

Further subdivisions are also possible (Oblasser and Riediger, 2015:63): for example, does the seal offer a set/catalogue of criteria or does it mandate a management system? Moreover, different aspects of sustainability can be emphasised. In the case of closed systems, a balance is strived for through “optional” and “compulsory” indicators. As the name suggests, compulsory indicators are obligatory for a successful certification. While not mandatory, optional indicators contribute to an overall higher score and can show sustainability emphasis areas. The transparency of the various systems can also be analysed based on published criteria. However, we see that many of the certificates root in marketing issues, therefore the public awareness, acceptance and usage is interesting. If a seal is recognisable nationally, European-wide or internationally, an association might be influenced in their decision to apply it, depending on their target group.

The period of re-certification or the autonomy of the auditors is an indicator of the quality of a seal or certificate. A process of continuous improvement cannot exist without a fixed re-certification cycle and the integration of employees and suppliers must be audited as well. Seals and certificates differ from voluntary commitments through their systematic and strategic approach to sustainable criteria. All are based on a management system which aims to measure sustainability performance and integrate sustainability criteria into a strategic process. Auditing and validation of the sustainability performance is another distinguishing characteristic. Processes

are tested on their commitment to upholding external policies and requirements, and the results are verified accordingly. Usually, this is done via external auditors (Oblasser and Riediger, 2015:64).

According to Oblasser and Riediger (2015), the *UN Global Compact* (UNGC), spearheaded in 2000 by former UN General Secretary Kofi Annan, is the world leading network for corporate social responsibility and includes not only businesses, but also institutional and non-governmental institutions as well as educational institutions (refer to 2.10). It aims to support and enhance corporate responsibility and stakeholder dialogue, resulting in the creation of sustainable markets. The challenges of globalisation were addressed by ten principles covering human rights, working conditions, protection of the environment, and institutional corruption.

An analogous example from Germany is the so-called *Deutscher Nachhaltigkeitskodex* (DNK), or German Sustainability Codex, which aims for a holistic approach to measuring corporate sustainability. It offers companies of different sizes a framework for reporting on corporate social responsibility and sustainability. It was established in 2011 by the *Deutscher Rat für Nachhaltige Entwicklung* (German Council for Sustainable Development) together with relevant stakeholders. An update was published in 2014 (Nachhaltigkeitsrat, 2015). This codex is also intended to be used as a tool for clear comparison of sustainable services between companies. Standardised minimum requests are the basis for this comparison and transparency is achieved through a fix-question survey on each company's sustainability services.

At the heart of this sustainability codex are specific criteria and indicators for measurement. Criteria can be divided into the categories strategy, process management, environment, and society. Moreover, it covers strategic analysis and measurements, rules and processes, the use of natural resources in innovation and product management, climate-harming emissions, employee rights, and equity (Sherwood, 2007).

If associations wish to enter into this codex, they must publish a statement on their website composed of specific descriptions and indicators. They must also publish any violations or preventative measures in order to, for example, explain any deviations in their CO₂ emissions. Explanations must comply with the international reporting standards GRI G3A+, which will be introduced shortly. This codex is applicable to institutions of all sizes and legal forms, but is voluntary in nature. To improve credibility, results can be confirmed by external third parties. By 2014, more than 60 publicly traded companies and medium-sized enterprises had applied (Oblasser and Riediger, 2015:58). To support small and medium-sized companies, a special guide on the codex and reporting requirements was developed by the Bertelsmann Foundation.

In response to the increasing importance of sustainable management reporting, the European Parliament enacted a CSR reporting duty to make non-financial company issues more visible. This entered into force from 2016 onwards for public companies with more than 500 employees, e.g. publicly traded companies, banks and insurance companies. Over 600 companies in Europe are required to follow this obligation, which puts the *Deutscher Nachhaltigkeitskodex* in the centre of attention for many neighbouring countries.

Several industry associations such as GCB, IMEX or GMIC introduced their own guidelines for the meetings and events industry such as *fairpflichtet* (a portmanteau formed from *fair* and *verpflichtet*, "obligated", "bound"). As it is also voluntary, associations, agencies, venues or other suppliers in the meetings industry are free to choose to participate. Their motivation to do so, as explained earlier, can be the result of intrinsic or extrinsic motives, such as moral obligations, ethical beliefs, regulations, customer demands or social pressure.

Sustainable event management is seen nowadays as a standard for mega events such as the Olympics, EXPO or the FIFA World Cup, and these events provide best practice examples for this approach (Große Ophoff, 2012:173). In 1992, when Agenda 21 was first developed (see Appendix A1), it was implemented and signed straight-away by the International Sport Association, as well as national and international Olympic Committees for the Olympic Summer Games in Barcelona held that same year (Bowdin *et al.*, 2012:157). The *Hanover Principles* were developed for the EXPO 2000 in order to ensure sustainable event management (McDonough *et al.*, 1992:5). In 2006, the FIFA World Cup first introduced its own ecological guidelines for water, waste, energy and mobility in their events management approach, calling it “Green Goal”.

Sustainable event management is, of course, limited only to sporting events. Other examples include the *World Summit on Sustainable Development* (WSSD, Johannesburg, 2002) and, in Germany, the Evangelic Church Day, the UN Conference on Biological Diversity and the International Garden Exhibition (Große Ophoff, 2012:173ff.). Another very good example is COP15 held in Copenhagen in 2010 (Danish Sustainable Initiative, 2012), which demonstrated how large gatherings can implement sustainable event management, as its event management took a strategic approach to sustainability that “was underscored by the use of the BS8901 sustainability management system for events and by reporting triple bottom line results using the GRI guidelines” (Danish Sustainable Initiative, 2012).

This approach covered economic aspects:

- Direct investment in the event
- Generated income
- Commitment to sustainability (estimated direct investment in event sustainability; percentage of total budget)
- Indirect investment / return of event (for destination and suppliers)

Social issues were covered as well:

- Participation (number of delegates)
- Event legacy in local economy
- Stakeholder engagement (suppliers and sponsors signing contractual sustainability clauses, number of beds from independently certified sustainable hotels)
- Health and quality of air
- Social community investment

Finally, it also took environmental issues into account:

- Greenhouse gas emissions
- Energy usage
- Transport
- Paper usage
- Waste management
- Water
- Food

COP15’s approach to sustainable event management strove to be holistic and involved many stakeholders in order to generate as much awareness for this topic as possible (Danish Sustainable Initiative, 2011). Insights and lessons learned from organising it were developed into a management framework and whitepaper called the *Copenhagen Sustainable Meetings Protocol*, which inspired this study as well. Here, a checklist approach was applied, though without taking into account the influences aspects had on each other.

Historically and in terms of sporting events, the Olympic Games were the first events organised according to sustainability considerations. This legacy has continued, with most sustainability standards being reflected in the Games organised today. Sustainable development was enshrined in the Olympic Charter as early as the 1990s (Furrer, 2002) and requires a strong focus on environment in the Olympic Charter (IOC, 2012). The International Olympic Committee (IOC) has acknowledged its particular responsibility towards the topic owed to the fact that the Games are an effective vehicle for promoting and showcasing sustainable development for worldwide audiences. In the past, the focus was largely on ecological aspects such as energy reduction, water saving measures, waste recycling and reduction, ISO 14001⁴ and the EMAS certification as well as other various environmental measures. The Olympic Games in London 2012, however, showcased a holistic approach to sustainability that aimed to incorporate all three aspects of sustainability, not just the environmental side. The resulting sustainability plan covered all phases of staging the Games – construction, operation and post-Olympic wrap-up (Olympia, 2014) – and tried to involve as many stakeholders and suppliers as possible. To establish a positive and lasting legacy, many reports were published afterwards and provided to each new hosting country as part of a transparent transfer of knowledge (IOC, 2012). Moreover, the Games' far-reaching media presence was used to generate new awareness for sustainability among both visitors and athletes, for example “waste angels”, staff members tasked with informing visitors of how to correctly sort and dispose of their rubbish (IOC, 2012).

As Holmes (2015:9) puts it and the preceding chapter has shown thus far,

“[s]ustainability does not mean that development must remain static, rather the development must not exceed the ability of the social-economic-environmental system to absorb the changes. From an events perspective the focus is on minimizing negative impacts and maximizing positive impacts. Initially, event organisers were primarily concerned with the economic impacts of events but increasingly the environmental and social impacts have become important. In response to this, governments, industry groups and not-for-profit organisations have devised a series of guidelines to help event organisers create more sustainable events” (Holmes, 2015:9).

Indeed, it was that “organisers can no longer complain a lack of guidelines” (Case, 2013:141). In recent years, a growing number of guidelines and checklists striving to help organisers meet sustainable event management criteria have emerged. The great complexity of these publications, which were developed for international, national and local levels, show the growing importance of sustainable events as well as the desire for a “standard” in the meetings industry (Moderer *et al.*, 2012:193).

In 2009 the UN developed the *Green Meeting Guide* for small to medium-sized events (UNEP, 2009). Then, in 2007, the British standard “BS 8901 Sustainable event management system”, the precursor to the 2012 international norm ISO20121 (ISO 2012), the development of which Hall (2012:120) likens to “[a]nother sign of the adoption of sustainability in the events community”. BS 8901 calls sustainability an “enduring, balanced approach to economic activity, environmental responsibility and social progress” (Musgrave *et al.*, 2009:2). The guideline for sustainable event management published by the BMU (see Appendix A9) explains in the introduction that “[s]ustainability always has to respect the consequences for the future. This includes environmental, economic and social aspects. Sustainability incorporates all levels of inspection

⁴ The ISO/DIN 1400 norm was created for the international level. Due to its complexity and the connection to an individual situation, it strives to achieve a maximum balance in criteria. This certification is internationally recognised and accepted (BMU, 2015).

and therefore needs to be taken into account on both areas, local and global” (BMU *et al.*, 2015:4). Wiemeyer (2014:220) also underlines the environmental, social and economic factors inherent to sustainable event management.

Using Germany as an example, at the national level there are two leading guidelines: *Leitfaden für die nachhaltige Organisation von Veranstaltungen* (“Guide to Sustainably Organising Events”), published by BMU and UBA in 2015 (BMU *et al.*, 2015) and *fairpflichtet*, the “sustainability codex of the German meetings industry”, most recently edited by the associations GCB and EVVC in 2014 (GCB *et al.*, see Appendix A9).

Fairpflichtet, a portmanteau of “fair” and *verpflichtet* (“obligated”) as mentioned earlier, was established in May 2012 by the GCB in cooperation with the *Europäischer Verband der Veranstaltungszentren* (European Association of Venues, EVVC). This codex is an opportunity for companies to take voluntary responsibility for the organisation and implementation of events according to the *triple bottom line* model. It is rooted in the ten sustainability principles of the *UN Global Compact* and aims to enhance the dialogue in the meetings industry, generate more sustainable events in a transparent fashion, and increase awareness of sustainable issues in general (BTW, 2015).

The codex is rooted in the following guiding principles:

1. Working sustainably means acting strategically; integration of sustainability into the corporate processes.
2. Sustainability should be understood as an opportunity, a solution for future corporate impact, and a tool for all to use.
3. The sustainable entrepreneur upholds their responsibility towards the region and promotes the common welfare.
4. Economy in balance with ecology and social aspects are of equal importance to the stability of a company.
5. Responsible use of resources means preventing, reducing and re-using.
6. The sustainable employer has a social competence for his employees, improves their qualifications, and maintains long-lasting employment relationships.
7. With respect to people, the sustainable entrepreneur demands the protection of human rights and prevents all forms of discrimination and corruption.
8. Openness is an attitude. Transparency in sustainability reporting is the consequence.
9. A voluntary commitment towards sustainability is an obligation to oneself that must become a standard for society.
10. The sustainable entrepreneur creates incentives to change minds and attitudes and to include employees and suppliers in the process of continuous development towards sustainability.

Though the codex is voluntary, more than 400 supporters in Germany have already pledged their support. Agencies, companies, and institutions – all stakeholders in the process chain from planning to execution of events – can sign this sustainability codex (*ibid.*).

The *German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety* (BMU), together with the Ministry of Environment (UBA), published guidelines for the sustainable management of events (BMU and UBA, 2015:5). These guidelines are intended primarily for meeting planners themselves. They recommend, especially for mega-events, the implementation of a management system (*ibid.*), for instance *EMAS* –

EcoManagement and Audit Scheme, a “voluntary instrument of the European Union which supports enterprises and organisations of every size and type in order to improve their environmental activities continuously” (*EMAS*, without year). *EMAS* will be discussed in more detail shortly.

The BMU guidelines involve ten fields of actions and were most recently updated in March 2015 as a third edition (BMU and UBA, 2015:5):

- Mobility: reducing traffic-related emissions and environmental harm
- Venue and accommodation of delegates: transferring aims from the fields of action, facilitating regional/cultural characteristics
- Energy and climate: considering the impact of events on the climate, compensating greenhouse gas emissions from an event, measures for reducing energy consumption
- Procurement of products and services: consideration of environmental aspects
- Catering: waste reduction and avoidance, eco-friendly packaging, reducing printables
- Waste management: avoidance, reduction
- Water usage: more efficiency
- Give-aways: are they necessary? Can they be eco-friendly/re-usable?
- Communication: ensuring awareness and success for sustainably organising the event
- Social aspects: accessibility for all, gender mainstreaming

In total, the guidelines contain a set of 144 criteria, indicators and recommendations and make it possible to develop measurements according to the specific needs of an individual event. Every event differs in size, structure of delegates, location and type, and therefore requires different fields of action. In terms of mobility, strategies of avoidance could include, for example, the combination of goods or the coordination of plane arrivals and departures to decrease the required number of transports. Reduction strategies could include incentives for delegates to arrive early by public transport or anti-idling policies, i.e. not idle engines during waiting times (BMU, 2015; Sakschewski and Paul, 2017). Sakschewski and Paul (2017) note, however, that if the location is cannot be changed due to construction-related or structural requirements, the energy or water demand of the venue can only be influenced within a narrow scope (BMU, 2014:5).

Besides the different guidelines and checklists, which are often available free of charge, numerous sustainability labels and certificates also exist to verify the sustainability practices of event organisers. According to Shinde (2012:10), there are currently about 300 to 700 sustainability labels available in Germany, with about 20 especially for the meetings and events industry (see Appendix A9) aiming to reduce costs and increase eco-efficiency. According to the study Meeting and Event Barometer 2014, the importance of these labels is increasing: the number of providers with a sustainability management system increased from 27.4% in 2011 to 37.7% in 2012 and 39.7 in 2014. Moreover, nearly every second event organiser prefers providers with a certified system (EITW *et al.*, 2014:18). This underpins the growing tendency to prefer certified organisers.

According to Moderer *et al.* (2012:193), the international *Green Globe* certificate, which is represented by the *EVVC* in Germany, is one of the most important sustainability indicators in the meetings industry. Große Ophoff, one of the most influential experts in terms of sustainable events in Germany according to Shinde (2012), states that this is “currently [the] best label on

the market” (Shinde, 2012:10ff.). It has been developed already in the year 1993 as a reaction on the *Agenda 21* and is based on their guiding principles (ibid). By December 2015 there were about 90 certified organisations (Green Globe, 2015b).

The programme is mostly applicable to locations and tourist enterprises. Individual events are not certified, as the set of Green Globe criteria was developed for special cases and is not adaptable. This is referred to as a closed system (Green Globe, 2019a) and companies or associations can have their practices evaluated in terms of environmental, economic and social sustainability. In contrast to other programmes, no management system is required here, as the criteria have already been developed through the Green Globe Certification. Altogether there are 41 criteria and more than 300 indicators that companies can custom tailor and use as a checklist (Sakschewski and Paul, 2017:257). If an interested company wishes to achieve the certification, all criteria and a minimum of 51% of the indicators must be met.

The necessary documents are checked by an auditor on site (Green Globe, 2019c). The auditor defines objectives and indeed at least 50% of these must be achieved for certification. The given set of criteria includes all aspects of sustainability. These cannot be adapted to a company’s individual situation. Balance is strived for by mixing voluntary and compulsory requirements. Onboarding employees takes place through seminars and trainings, but Oblasser and Riediger (2015:71) note that the actual amount of participation is low. Active integration of suppliers is not mandatory.

The continuous process of enhancement is part of the certificate as well. With every re-certification, an even higher score must be achieved, but the PDCA principle (**plan-do-check-act**, compare Figure 29) is not adapted completely to these criteria. There is no duty to publish a sustainability report and the certificate is awarded as long as the minimum score is achieved. The set of criteria and the balancing of individual indicators are only partly available to the public and certifications can only be completed by official Green Globe auditors. As a result, Green Globe can be considered non-transparent in some ways.

For a successful certification, certain criteria with specific indicators must be met. These are divided into the following four categories: Sustainable Management (A), Social/Economic (B), Cultural Heritage and Environmental (Green Globe, 2015a). Requirements are not only process optimisation in the areas of energy, water, waste and social issues (Koenig, 2012:72; Green Globe, 2019f), but also the negotiated agreement by the responsible managers, internal employee motivation, as well as informing and including event delegates (Moderer *et al.*, 2012:189). This ensures the creation of the necessary transparency and credibility for event stakeholders.

In order to participate in the certification process, the interested party must first register with Green Globe. Successful certifications are valid for one year. After that, the company must recertify in another audit (Green Globe, 2019e). As the certification aims for greater efficiency and reduced resource consumption, organisations can look forward to long term cost reduction by going through the process. Moreover, regular action field audits guarantees a certain risk management as well. Image and awareness in the eyes of consumers may very well increase due to this certification as well (Green Globe, 2019a).

But measuring stability via the *Green Globe* or DNK has certain disadvantages to contend with as well. For example the Green Globe is very standardised, which may result in individual

aspects being neglected (Oblasser and Riediger, 2015). *Greenwashing*⁵ might also be an issue, as companies might strive to enhance their image with a label instead of incorporating sustainability into their strategic targets. Furthermore, data might be manipulated to improve the result (Oblasser and Riediger, 2015). Additional criticisms of guidelines and certifications include the wide scopes, which can lead to unnecessary complexity and confusion (Große-Ophoff, 2016).

UN Global Compact	DNK	Fairpflichtet
2000	2011, Update 2014	2012
10 principles	20 codex criteria	10 guidelines
Global	National	Industry specific
Voluntary	Voluntary	Voluntary
Non-binding	Non-binding	Non-binding
Written declaration of accession	Written declaration of accession	Written declaration of support
Annual progress report (communication on progress)	Bi-annual written renewal of the declaration of accession	Annual progress report
No reporting standard	GRI Standard	No reporting standard

Table 18: Comparison of sustainability standards

Source: based on Oblasser and Riediger (2015)

While sustainable event management is indeed increasing in importance, as seen via the literature review in Chapter 2, there are nonetheless several barriers for companies, agencies and/or associations with regard to planning and implementing sustainable events. Lack of knowledge, as discussed in connection to the *Dragons of Inaction* by Gifford in Chapter 2, may be a main one. Another likely barrier is anticipated costs from the restructuring and time which must be invested to establish new sustainability-related knowledge, plans and aims. Sustainability is not yet anchored in the strategy of many enterprises, which should be motivation to explore and invest into the idea (Oblasser and Riediger, 2015).

Beyond standards, labels and certificates, incentives must also be taken into consideration as useful motivators for more sustainable practices. Musgrave et al. (2009) stated that incentive-oriented strategies for participants, employees, companies and institutions can lead to more enthusiasm for sustainable event management (Musgrave, 2009:6). Case (2014) also sees incentive-oriented strategies as an important issue for the future: “Human behaviour is known to respond to incentives, particularly economic ones” (Case, 2014:190). A company could, for example, share travel expenses for public transport and support proven sustainable management strategies. The German Sustainability Award for companies and the event-specific *Meeting Experts Green Award* presented by GCB and EVVC are examples of how this approach can look.

Up to now, there is no sustainable commitment required by law, but *Agenda 21* may one day form the basis for something like a moral obligation. Rothfuß (2014:27) has speculated on such obligations being (en)forced by the EU in the future. In addition, the ISO standard for sustainable event management has existed since 2014 as well (DIN ISO 20121, 2014:4) (see BMU and UBA, 2015:5). “The aim [of ISO 20121] is to minimise and steer environmental pollution as well as financial and social impacts” (BMU and UBA, 2015:5). Moreover, event planners must focus on security aspects, risk management and fire safety as well (ibid).

⁵ Meaning an attempt to enhance a company’s own “green image” through PR/marketing strategies or donations without actually implementing sustainable practices in accordance with their strategic targets. (<https://wirtschaftslexikon.gabler.de/definition/greenwashing-51592> accessed 2020-11-27)

This programme was created especially for events of all sizes and stakeholders of the international meetings industry were integrated into the development process. Until now, mega events such as the Olympic Games or the Eurovision Song Contest were certified with ISO/DIN 20121. There is also an open set of criteria composed by the organisation itself that is necessary to implement a management system, which calculates everything according to the individual situation (Sakschewski and Paul, 2017:258). Individual indicators and their validation will be inferred from here. Due to its complexity, a maximum balance between criteria and sustainability areas will be strived for. Employees and suppliers will be integrated into the process, and continuous enhancement is mandatory as well. The indicators are open to the public, but similarly to ISO/DIN 14001 there is no reporting duty. In contrast to *EMAS* and *ISO/DIN 14001*, no external audit is necessary. This might weaken validation and acceptance. Costs can vary due to the fact that the planning and preparation of the management system is possible internally or externally.

Hall (2010) claims that the development of this standard is another sign of the adoption of the concept of sustainability within the industry. It is rooted in the British Standard *BS 8901* and incorporates a management systems approach, which, as Jones explains is “requiring identification of key sustainability issues including venue selection, operating procedures, supply chain management, procurement, communications, transport, and others” (Jones, 2014:353).

DIN ISO 20121 sets requirements for a sustainable event management system for all types of events and event-related businesses and offers guidance on how to meet them. The international norm supports organisations with implementation, management and optimisation of a sustainable event management system and ensures compliance with sustainable development guidelines and a demonstration of voluntary conformity with this international norm. It has been set up in a way that supports the management of an optimised sustainability during the whole cycle of event management (DIN ISO 20121, 2014:4; Sakschewski and Paul, 2017:258). Processes are defined and methods explained for planning and implementing sustainable events. This is accomplished not by defining indicators, but describing the process for identifying and measuring association-specific action fields. Organisations are requested to develop a methodology to assess the importance of direct and indirect action fields and to help by identifying the fields the organisation concentrates on. “There is no single procedure for the identification of relevant action fields of a sustainable development. Nevertheless, the procedure used should congruently offer results and define and apply measurement criteria” (DIN ISO 20121, 2014:4). In Appendix A9 the norm lists, with reference to DIN ISO 26000 and the sector supplement for event organisation according to the *Global Reporting Initiative (EOSS)*, the following action fields:

- Accessibility
- Location
- Accommodation
- Animal welfare
- Anti-competitive practices
- Bribery and corruption
- Communication
- Local community
- Labour standards
- Status of labour and social protection
- Consumption behaviour
- Discrimination and vulnerability risks
- Economic benefits

- Choice of materials
- Energy
- Food and beverage
- Health and safety at the workplace
- Staff development and training at the workplace
- Illegal drugs and anti-doping measures
- Indirect economic impacts
- Market appearance
- Prevention of the use of illegal chemicals
- Reduction of emissions
- Biodiversity and environmental protection
- Capacities for utilising resources
- Safety measures
- Procurement of materials and services
- Transport and logistics
- Water and wastewater disposal
- Locations
- Waste
- Noise

We found that the image and publicity of the ISO norms are also an advantage for those who have already obtained an ISO certificate. The ongoing improvement and optimisation approach is also advantageous, as it ensures continuous involvement and an increase of expertise, know-how and manpower for this topic. However, the approach requires the involvement of stakeholders too, which has positive and negative aspects to consider. As content-related requirements can only be found in the appendix of the ISO norm and no specific requirements are given, there is arguably a potential risk of greenwashing.

An international code of conduct is the so-called *APEX/ASTM* standard briefly mentioned in section 2.8. These event standards for environmental sustainability are based on an initiative of the *US Environmental Protection Agency* (EPA) and the *Green Meeting Industry Council* and were introduced in collaboration with *APEX* (the Convention Industry Council's Accepted Practices Exchange) and *ASTM* (An ANSI certified international standard development organization) (Oblasser and Riediger, 2015:46; *APEX/ASTM*, 2014). They are generally comparable to *fairpflichtet*. The goal was to develop a voluntary standard for creating more sustainable meetings. They strive to be measurable, available in a system that allows for different levels of engagement, to address policies, to hold both the supplier and planner accountable for implementation, and are intended to complement other recognised standards within the meetings industry (GMIC, 2015; Convention Industry Council, 2015)

Here, nine different sectors in the area of meeting management such as production, exhibitions, transportation, accommodation, catering, communications, venues and destination selection are covered (ibid). Moreover, eight categories for each sector were developed: Staff management and environmental policy, communication, waste management, energy, air quality, water, procurement, and community partners (ibid).

According to the founders, it is important to note that the two standards are different in their approach to defining a sustainable event standard. The *BS 8901/ISO 20121* standard is a management system (similar to *ISO 14001*) written to explain the process of organising an event. The *APEX* standard, on the other hand, "provides definitions of specific operational actions

with key performance matrix and scoring that comprise a sustainable event. The standards will work well independently or in collaboration as frameworks for sustainable events and sustainable meetings industry businesses” (GMIC, 2015; Sakschewski and Paul, Paul, 2017:256).

A schema applicable to events, but best suiting to repeating events such as the Evangelic Church Day in Germany, is the *EMAS* due to its extensive process (Oblasser and Riediger, 2015; Holzbaur, 2014 and 2016). It also contains an open set of criteria which can be tailored during the certification process by the organisation itself. It is essential to install a specific management system which analyses the initial phase of organising an event and defines aims and criteria for subsequent stages. The norm *EMAS* was developed at the supranational (European) level and describes the organisational process in this fashion. Due to its complexity and the direct connection to individual situations, a high balance between criteria and sustainability areas can be achieved. Employees are involved in the process through trainings and coaching. The supply chain is also analysed and integrated where necessary. A continuous process of enhancement is part of the management system as well (Oblasser and Riediger, 2015). The obligatory requirements for documentation and publication of all parts of the certification process ensure a high level of transparency. The validation of the management system is part of the certification process and is undertaken by external auditors (Holzbaur, 2016).

This certification is known throughout Europe and participating companies or institutions can be found in a European register. The period of re-certification is given and, moreover, the *EMAS* certificate includes all *DIN/ISO* 14001 requirements. Therefore, authors like Oblasser and Riediger, Holzbaur and Große-Ophoff expect continued spread throughout Europe. There is also a simplified version, called *EMAS easy*, which allows smaller companies to get their foot in the door on the way to full *EMAS* certification. The costs are limited to the installation of a management system and validation through an external auditor. The listing in the central register requires a nominal fee, but there are no running costs for membership.

As explained in the background chapter, events vary wildly by type, size, location etc. and so do their certification programmes as well. Most applicable to booth construction companies and/or agencies is a programme called Sustainable Company. The *Association of Direct Economic Communication e.V.* decided against adopting an existing indicator systems and developed its own industry-specific sustainability concept in a sustainability working group (*Arbeitskreis Nachhaltigkeit*) together with industry partners (Sakschewski and Paul, 2017:257). Since 2011 the association offers its Sustainable Company certificate to its company members (mostly booth companies) and Sustainable Project certificate for individual projects. The industry-related certificates are issued by an external certifying body. Eleven different categories are thematically related to *ISO/EMAS*, *SCOPE* 1 and 2 (FAMAB, n. d.).

The certification indicators, which are addressed by the guiding questions, are (FAMAB n. d.):

- A: elementary laws of business management
- B: external view: customers, suppliers and sub-contractors, sponsors, public authorities and associations
- C: internal view: communication, employees
- D: operative business: fundamentals of the organisation, fundamentals of design and planning, environmental safety in production, logistics, montage and procurement

It is a structured process based on a data entry form that is transferrable to a state-approved certifier as well as a telephone interview for the plausibility verification purposes.

3.2 Critical reflection on sustainability schemas in the events industry

We see from the discussion thus far that there is a wide variety of certifications, schemes, norms, standards and guidelines, and there are several points of criticism regarding sustainability policies in the meetings industry, including no reporting standards (Oblasser and Riediger, 2015), non-uniform policies (Holzbaur, 2016), and their voluntary, non-binding nature (with the exception of general laws) (Oblasser and Riediger, 2015). Often, certifications are used as a marketing instrument (Große-Ophoff, 2012), leading to improved public image without actually enhancing corporate or event sustainability performance. Quotes to measure sustainable event management are often misleading, as academic frameworks are often used incorrectly in practice or not all details are known (Oblasser and Riediger, 2015). In other words, effectiveness is controversial. This underlines the need for an easy-to-use, yet holistic measurement approach, which is the aim of the proposed study.

Besides certifications, many voluntary codices are available, but a detailed overview, ranking and assessment thereof might be difficult to digest for consumer and client. In contrast to certificates, codices are labels showing that an enterprise is willing to operate under certain fields of action. The University of Applied Sciences in Lucerne, Switzerland, published a comparison of existing labels in the tourism industry. Some of them are – due to the proximity of industries – applicable for the meetings industry as well, but a holistic overview is still missing. The GCB provides one on their homepage for the German market, which was analysed for this research, too. However, the sheer variety of labels itself might confuse consumers and clients. This is made even worse in the meetings industry due to a diverse supply chain, as was described earlier. Several suppliers offer different goods and services resulting in an even broader source of certifications, labels and schemas (for paper, food, venues, mobility, hotels, give-aways etc.). The complex mixture of suppliers required for preparing and implementing a meeting is a challenge here, as products are produced at different times and destinations (Oblasser and Riediger, 2015). The literature agrees that monitoring is difficult as well.

This is shown in the BMU Guideline and the practice-oriented guide of the UNEP. Process optimisation is essential here. Indirect goods such as meetings and events tend to have a much higher proportion of process costs compared to goods such as office material (Miceportal, 2017). This suggests that process costs can be reduced by using a strategic management system in event management. Here, the process can be optimised by comparisons, standardisation, or communication channels that are easier to access and use such as portals (Miceportal, 2015).

Smith-Christensen (in Raj and Musgrave, 2009:25) offered a critical reflection, too, listing what is needed to implement sustainable event management successfully:

“[T]o improve communication among stakeholders, enhance the capability for making informed decisions specifically relating to resource allocation, financial support/funding is often needed, but underlies some challenges: wrong destination marketing, infrastructure, bid process, terminology often unclear” (Smith-Christensen in Raj and Musgrave, 2009:25).

This discussion shows again that confusion regarding how to define the concept of sustainability is an on-going issue in the meetings industry. The extent to which sustainability is understood and implemented differs widely, leading to erroneous statements on the status quo in this industry.

It might be argued that any approach to sustainability is welcome in lieu of no sustainable event at all. Nevertheless, holistic standards and definitions may very well decrease confusion, i.e. why (inter)national and association-wide cooperations are needed. Hall claims that “policy-makers failed to manage policy complexity” (Dredge and Whitford, 2010; Hall, 2008, 2011) and that “the widely used WCED (1987) definition is based on the intergenerational equity principle, which stipulates that no avoidable environmental burdens should be inherited by future generations” (Hall, 2010). He suggests that sustainable development should not be viewed from an anthropocentric perspective, but from an ecocentric one, i.e. “[i]mproving the quality of human life, while living within the carrying capacity of supporting ecosystems (IUCN *et al.*, 1991:10)”, reiterating that the capacity of the environment to improve living conditions is limited. This contrasts sharply with perspectives that suggest there are few to no limits to both economic growth and natural capital.

The image of the already established ISO norms might be advantageous for ISO 20121 and lead to greater trust among organisations and customers. There are additional advantages for organisations already certified with other management systems such as ISO 9001 or ISO 14001, as there are parallels, meaning they are familiar with the underlying processes and can adapt their operations to the new norm easily (Sakschewski and Paul and Paul, 2017). Moreover, ISO 20121 includes the requirement that suppliers’ and partners’ interest in certification must also implement sustainability strategies. In short, it requires sustainability along the whole supply chain and offers a holistic approach. Continuous improvement is an inherent part of it, which guarantees the continued development of the organisation and its events (ISO, 2013).

As previously discussed, the risk of green washing is still lurking, as there are no specific requirements and organisations do not receive a checklist to work with in to be certified. Instead, the organisation itself defines the extent of implementation within its own walls. The appendix of the norm provides recommendations, which can be seen as inspiration, but they do not constitute a fixed framework of criteria. However, the multi-stakeholder approach facilitates external and internal awareness and communication and regular reporting requirements enable verifying checks and adjustment if necessary. For smaller events, this model might be too time consuming, however.

Similarly to ISO 20121, the *Green Globe* certificate is known around the world. As the indicators are applicable to many different areas within the tourism and events industry, it is recommendable for many organisations. There are external and independent auditors who rate the criteria in the certification process, ensuring transparency and authenticity (Green Globe, 2020). However, custom tailoring of indicators might undermine transparency by confounding comparison efforts. Moreover, the main focus is on the tourism industry, which does not align perfectly with the requirements of the events industry.

Name	Applicable for events industry?	Segment	Practical and simple applicability?	Weighted fields of action?	Specialities
ISO 20121	Yes	No segmentation	No	None	List of non-weighted individ. measures, holistic approach
GRI	Yes	Mega events	Medium	Society, Product responsibility	Additional indicators, Segments for events industry
Green Globe	Limited	MICE industry and tourism	Low, high level of abstraction	Sustainable management, social and environmental indicators	Consideration of cultural values

Table 19: Comparison of sustainable event certifications

Based on Sakschewski and Paul (2017); Jones, 2014:39ff. (see Appendix A9)

As Table 19 shows, all certificates are applicable in some way to the events and meetings industry. ISO 20121 and GRI are more suitable for mega events and the Green Globe certificate primarily for the tourism industry. It might be adaptable for events, but skewed more towards the MICE industry and not other types of events. Every certificate has its own focus, leading to individual specialties and details.

The literature review revealed an increasing focus on certifications, standards and guidelines, and the next section will summarise these for the purposes of organising sustainable events and analysing the importance of these systems.

3.3 The necessity of holistic impact analysis of association events

As Köhler (2014) noted, sustainability management has two aims: the sustainable development of an enterprise on the one hand, and the sustainable development of economy and society on the other (Schaltegger and Burritt, 2005; Wall and Behr, 2010:5). She also argues that the literature focuses primarily on implementing measurements, not the impacts in terms of measurement. As this neglects the control dimension, it is crucial to discover which impacts result from planned and implemented measures. Thus a strategic model is necessary (Köhler, 2014; Oblasser and Riediger, 2015).

Impact reporting informs the organiser about the costs and benefits of an event and can form the basis for deciding whether to organise or financially support a specific event (Raj and Musgrave, 2009; Frechtling, 2006:26, Köhler, 2014). It enables the event manager or association to use budgets in a target-oriented fashion. Moreover, it helps to better understand the relationships between economic, social and environmental impacts, and careful consideration can help to achieve successful strategic management, measurement and controlling, which can foster a deeper understanding of the impacts occurring from the event and help managers identify threats to event viability due to, for example, increased regulation. The resulting insights can be used to convince detractors of the benefits of an event or increase acceptance for certain decisions, for instance if an event will no longer occur annually (Köhler, 2014; Small, 2008; Fredline, Jago and Deery, 2003). Social impact analysis allows for the identification of both positive and negative aspects of an event, as well as a balancing of them in terms of cost-benefit (cf. cost-benefit analysis from Ray and Musgrave, 2009; section 3.1). This can be used to obtain

the long-term support of stakeholder groups. The conclusions from the assessment might be of help in steering the impacts of future events as well.

This is all part of the sustainable organisation of an event. Based on the fact that natural resources are exhaustible, both academics as well as the meetings industry demand sustainable event management approaches (Sherwood, 2007; Fredline *et al.*, 2005). Events, as well as scientific congresses or educational meetings, should focus not only on economic goals, but also on cultural traditions, environmental protection as well as the protection of local inhabitants (Köhler, 2014; Getz and Andersson, 2009:3). Impact analysis can help uphold this responsibility, forming an important step towards the development of sustainable event management concepts (Getz, 2009; Getz, 2018). Moreover, impact analysis can help to increase the strategic optimisation of event impacts for suppliers and service stakeholders.

Collaboration and the exchange of resources between organising agency, association, and regional stakeholders must be promoted in order to maximise the benefit of an event (also for local suppliers) and to minimise costs. Impact analysis can detect potential areas of failure, optimisation potential, and support network structures useful for sustainable event management. According to Frechtling (2006:26), it might be possible for enterprises or public institutions to form a joint initiative for specific events as well as identifying synergies (O'Brien, 2007; Chalip, 2004). If the results of an impact analysis are put towards improving network structures, it might jumpstart the requisite process of continued optimisation. This means that impact analysis can also be viewed as a benchmarking instrument (Köhler, 2014). In the past, most businesses have relied exclusively on standard financial indicators to evaluate their effectiveness. This approach is changing due to stakeholder demands, with sustainability reports emerging as a new trend in corporate reporting and integrating into a single report the financial, environmental, and social facets of a company (GRI, 2006). With the introduction of CSR reporting requirements in Germany in 2018, this approach became mandatory for all organisations with at least 500 employees.

Impact analysis forms the basis of effective and efficient decision-making in the target-oriented planning of sustainable events (Frechtling, 2006:26; Köhler, 2014). It is critical to ensure that no one-dimensional measurement in economic terms takes place, as this would not reflect a real-world management control approach (Köhler, 2014). Instead, a holistic and balanced approach is needed, meaning that both negative and positive aspects of social, economic and ecological influences must be taken into account. The literature review reveals that few tourism and event impact studies meeting these requirements exist thus far (Sherwood, 2007; Fredline *et al.*, 2005; Köhler, 2014). Therefore, the following paragraph will offer an overview of the status quo.

Based on previous research, Ritchie published an article in 1984 that illustrated a conceptual framework for the evaluation of hallmark events. Six types of impacts were identified: “economic, tourism/commercial, physical, socio-cultural, psychological and political” (Wall and Behr, 2010; Köhler, 2014; Sherwood, 2007). Beyond that, he also identified “the nature of the variables to be measured and the associated problems with data collection and interpretation” (*ibid.*). As research on this topic was still rare at this time, the framework proposed was regarded as rather advanced. However, it was Ritchie (1984) himself who demanded further development. Later, authors such as Hall (1989), Burns, Hatch and Mules (1986), Faulkner (1993) as well as Getz (2000) identified the necessity for a cost-benefit-analysis of event impacts. Scholars such as Hede, Jago and Deery (2002) rooted their special events evaluation within the *triple bottom line approach* and illustrated that a growing amount of research was concerned with the evaluation of different event impacts, i.e. economic, social and environmental aspects thereof.

Sherwood, Jago and Deery (2005) as well as Fredline *et al.* (2005) continued this trend with research on event impact assessments, followed by Sherwood who developed his own set of indicators (2007). Köhler (2014) conducted a thorough analysis of the different forms of impact analysis in her study. She concluded that there are mainly three approaches to economic impact analysis: economic scale (analysis of the visitor and organiser expenditures resulting from an event), economic impact analysis, and cost-benefit analysis (Köhler, 2014).

Economic impact analysis forms the basis for event managers and should be taken into account during event planning. The aim of this approach is to produce a viable and realistic calculation of the economic impacts of an event in general and in terms of the destination where the event will be held. Cash flows resulting from the event are analysed in terms of their interdependencies and potential for regional economic change. These economic impacts are expanded by added value, income and occupational effects, and are described in detail later in this section. Köhler (2014) offers a comprehensive collection of instruments consisting of primary and secondary data of federal and regional authorities, econometric models, input-output-models and disseminators (Köhler, 2014:48).

In addition, there are several approaches for social impact assessment that can be divided into objective and subjective methods. Subjective methods take the perception of local suppliers and inhabitants into consideration, while objective ones use quantitative indicators to measure social event effects (Köhler, 2014; Tassiopoulos and Johnson, in Raj and Musgrave, 2009). The objective measurement of event impacts is considered an important field of study, as it offers relevant insights in order to improve the planning and management of events (Fredline, 2000:2). However, the literature review revealed that there are few valid instruments for measurement due to the challenges in quantifying social effects (Small, Edwards and Sheridan, 2005:70; Fredline, 2000:2).

A complex overview is offered by the *Social Impact Assessment*, which is rooted in the environmental sciences (Köhler, 2014) and developed to anticipate the social consequences of a project or programme (Tassiopoulos and Johnson in Raj and Musgrave, 2009; Small, Edwards and Sheridan, 2005:68). Fredline *et al.* (2005:5) summarises the steps involved: Registration of the social initial situation, projection of the potential social change, registration of the relative importance of the expected changes, and measurement of the acceptance of the expected grade of change.

A central challenge of this method is identifying objective indicators which can illustrate social change appropriately (Fredline *et al.*, 2005:5; Vanclay, 2002:185). Moreover, it can be seen as an ex-ante instrument. This is critical to consider for events, as time and manpower issues generally plague the initial planning period, making pre-event studies unviable (Tassiopoulos and Johnson in Raj and Musgrave, 2009:77). Fredline *et al.* (2005) therefore suggest using this approach ex-post facto in order to measure the actual changes. The literature review reveals that this method is still rare in the event impact assessment world. An adaptation of this approach was only used by Small, Edwards and Sheridan in 2005 (Köhler, 2014) in the development of a conceptual framework for evaluating social effects of events. Here, the authors used the SIA approach by extending it to subjective indicators in order to achieve their goal.

With the help of valid scales, subjective measurements of social impacts is possible. Köhler (2014) suggests the use of the three-level-scale from Fredline and Faulkner, which represents a multi-dimensional approach. First, it analyses whether a social impact occurred and, if so, in which direction, i.e. increase or reduction; have the basic conditions in the surroundings of the

event changed? Next, the impact on quality of life is be assessed via a five-stage rating scale, then the change on society as a whole is measured and categorised (Köhler, 2014:233).

Identifying social impacts requires the appropriate items to be chosen for assessment. Examples were offered by Fredline, Jago and Deery, including economic use, environmental impacts, and community pride (Köhler, 2014:235). With the help of this scale, acceptancy and support as well as the type and intensity of local inhabitants can also deliver insight into social effects (Köhler, 2014:236). Finally, there is room for feedback, i.e. results are presented to the organisation and relevant stakeholder groups. Strategies for the maximising positive effects and minimising negative effects can be derived from the results.

A lack of standardised systematisation of social effects might make comparison more difficult. Moreover, these subjective methods should be expanded by objective measures, as the subjective perception influences social effects significantly. To account for diversity within a community, it is also important to segment the local community in order to analyse the results more specifically (Köhler, 2014:143).

Based on the described limitations in the preceding section, most studies on social event impact assessment tend to use subjective approaches (Fredline *et al.*, 2005:5). For the holistic evaluation of perceived social impacts, event literature suggests the following procedure (Small, Edwards and Sheridan, 2005:70):

Description:

- The event is described in terms of type, activities, venue and time, infrastructure, budgeting and organisation.

Show briefing:

- The second step involves the creation of a profile of the venue.

Identification:

- Socio-cultural effects which could occur due to the event are evaluated. A mixed-method-approach is recommended, for instance expert interviews, interviews with industry and venue managers, as well as secondary analyses of existing studies.

Projections:

- The fourth step is to anticipate the socio-cultural effects of the event. Using the SIA method, these projections must be conducted before the event in order to accurately represent the pre-event perception of local services or inhabitants.

Evaluation:

- The evaluation of the perceived social impacts is conducted post-event. The total impact of the event is evaluated as well as the acceptance from employees' or locals' perspectives. Evaluation requires a thorough data summary and analysis in order to distil the implications of the positive and negative aspects of the socio-cultural effects.

Feedback:

- The results must be presented to the organiser, the association and other relevant stakeholder groups. This forms the basis for deducing future strategies for maximising positive impacts while minimising negative ones.

Finally, Köhler (2014) also assessed approaches to measuring the environmental impacts of events. As previously discussed, impacts of events with regard to sustainability can be diverse; there are several approaches to choose from when it comes to measurement. These can be quantitative and outcome focused, or qualitative and process-oriented:

- Quantitative, outcome-oriented measurement approaches
- Quantified totals of waste collected
- Total visitor travel
- Tonnages of food and drink consumed
- Carbon, water, waste footprints

Online resources for analysis vary in terms of quality, scope and underlying assumption, thus this study aims to improve this situation. Qualitative approaches assess the activities undertaken in event management and try to improve sustainability performance, which often has an emphasis on environmental and less frequently on social aspects.

When it comes to environmental impact analysis, Köhler (2014) stated that few studies focus on the ecological impacts of events. However, the topic has gained importance over the last decade (Große-Ophoff, 2012; Schreiber, 2012; Oblasser and Riediger, 2015). Getz (2008:421) and Sherwood (2007:73) argue that the measurement of ecological impacts is neglected compared to the social and economic effects of events, although there is a focus on the eco-friendly conception of meetings and events. Practice, however, provides several tools and instruments suited to measuring environmental impacts (Köhler, 2014).

The research connects environmental impacts in large part to the social impacts witnessed through the eyes of local inhabitants (Köhler, 2014; Fredline, Jago and Deery, 2003; Fredline and Faulkner, 2002; Delamere, Wankel and Hinch, 2001). To date, event science contains few theory-based measurement approaches (Sherwood, 2007; Köhler, 2014). While several authors report ecological impacts via quantitative forms, indicators or checklists (Gibson, Kaplanidou and Kang, 2012; Merrilees and Marles, 2011; Laing and Frost 2010; Fredline *et al.*, 2005, May 1995), there are only a few studies discussing actual methods for measuring impacts. The most important approaches will be highlighted briefly below.

A holistic approach for measuring environmental impacts is the *Environmental Impact Assessment* (EIA), rooted in environmental science. This approach follows the same procedure as the *Social Impact Assessment* (SIA) introduced earlier. With EIA, the consequences of a project for the biological/geographical/physical environment are anticipated (Wathern, 1990:6 in Köhler, 2014). Decision-makers can estimate ex-ante how strong the specific event will influence the environment (Dickson and Arcoodia, 2010:237). In 1995, May offered one of the first studies on the ecological impacts of event. He analysed the environmental impacts of the Olympic Winter Games in 1992 using EIA and summarised that the staging phase had several negative influences on the environment such as pollution and vegetation destruction (Köhler, 2014). Although this method offers an essential contribution for the understanding of regional ecological effects, certain limitations do exist. Similarly to the SIA, the ex-ante approach is subject to criticism and might be a disadvantage in its own right, as

Figure 68 in Chapter 5 shows. There is often limited time and manpower for pre-studies during event planning. Moreover, this approach concentrates only on the host destinations and neglects the global impacts of the event on the environment (Köhler, 2014). Furthermore, although research revealed that mobility is one of the main sources of environmental damage, EIA is not able to measure the ecological effects of the delegates' form of arrival, departure and local transport (Collins, Munday and Roberts, 2012:578). The approach requires the evaluation of

impact importance based on their own ecological values, which rules out an objective assessment.

Besides EIA there are other ex-post measurement approaches for ecological impacts. One of them is calculating CO₂ emissions generated by a specific meeting or event (Gibson and Wong, 2011:94; Schlenker, Getz and Foley, 2010:7; Getz, 2019). There are several tools for this available online, both free and fee-based, and offered by governmental, non-governmental or commercial organisations.

These online calculation tools vary greatly in terms of both extent and accuracy. A relatively simple and free tool dedicated to measuring the CO₂ footprint from arriving and departing by aeroplane or car as well as accommodation is the “Event and conference carbon footprint calculator” from TerraPass, Inc. Glaringly absent from this tool’s calculations are the CO₂ emissions generated through the venue itself.

More detailed analyses are possible with the free *Event Carbon Calculator* tool offered by the *Australian Centre for Event Management* (ACEM). Here, CO₂ emissions are divided into different categories: transport, accommodation, food and beverages, services of suppliers, giveaways, and water. An extension of this approach is available through the *Environment Protection Authority Victoria* (EPA Victoria), which offers its own *Carbon and Ecological Footprint Calculator*. This tool attempts to calculate other ecological effects beside the CO₂ footprint as well. Using questionnaires, delegates, service suppliers, exhibitors and sponsors, organisers, and associations are polled on their approach to transport, accommodation, catering, marketing materials, and waste and recycling. The advantage of this instrument is the broad view it generates, enabling conclusions not only on environmental damage resulting from CO₂ emissions, but also highlighting resource usage in the life cycle and illustrating the space needed to allocate and recycle these resources (EPA Victoria). This is referred to as the “ecological footprint” and is an approach for determining the overall ecological impact of an event. This approach is rooted in the assumption that the biological capacity of earth is limited, but needs to cover the complete demand for resources nevertheless (Collins and Flynn, 2008:754). In order to ensure future development, humanity may use only as many resources as can be regenerated by the earth (Collins and Flynn, 2008:754), which aligns with the earliest definition of sustainability from von Carlowitz highlighted in Chapter 2.

The ecological footprint offers insights into the use of resources by the population and the economy and relates it to the resources available on earth. The result of this calculation is aggregated to space needed on earth: the unit “global hectare” (GHA) (Collins and Flynn, 2008:754). The GHA illustrates the amount of surface required if the economic unit or population makes no changes to their demand (Posch, 2012:106; Rees, 2002) and how the size of this surface can be seen in relation to globally available resources (Collins, Jones, Munday, 2009:831). According to Gössling *et al.* (2009) this approach focuses mostly on measuring ecological sustainability. It can be assumed that an event is potentially sustainable when its ecological footprint does not exceed its biocapacity (biological productive square).

We see that ecological footprint is applicable for a detailed analysis of the ecological effects that goes beyond CO₂ emissions (Gibson and Wong, 2011:94). It allows decision-makers to compare the ecological effects of different events and meetings and can therefore be considered a useful tool for prioritising ecological activities. Moreover, it is based on objective measures and thus not dependent on subjective estimates (Collins and Flynn, 2008:755). Some authors criticise that the impacts of human consumption are not reflected accurately, as the connection between various consumer activities and ecological effects is not available/understood in detail

(Collins and Flynn, 2008:755; Köhler, 2014). Moreover, ecological footprint is based on a complex calculation requiring a detailed data basis that is often unavailable (Gilcum, Lutz and Jungnitz, 2007:68). There might be also methodological weaknesses at play, which are not shown transparently during calculation (ibid).

An alternative to using ecological footprint is the environmental input-output analysis. This was conceived by Leontief (1970) and is used mainly for measuring the economic effects of events, but can be adapted for ecological impacts, too. Sherwood (2007) suggests qualitative indicators that take into consideration water usage, waste amounts, energy usage, and the existence and mediation of environmental programmes. The advantage of these indicators is that they are easy to use, leading to greater comparability between meetings and events in terms of their ecological impacts. Nevertheless, Köhler (2014:150) still calls for the development of standardised indicators for measuring the environmental impact of events. Jones (2014) underscores the challenge of measurement when data are missing, but indicator-based approaches offer the possibility to infer the ecological effects of events based on fewer data points, which is undeniably an advantage over other approaches (Köhler, 2014:151; Wall and Behr, 2010:9; Sherwood, 2007).

Indicator-based approaches seem especially interesting due to the fact that they offer both meaningful results and ease of use. Checklists for event organisers can be developed from these indicators, which helps to illustrate the crucial effects and highlight potential for improvement. When striving for a holistic approach to evaluating ecological effects, both quantifying impacts in energy and water consumption, waste amounts and climate impact as well as qualitative indicators such as the existence of environmental programmes should be considered.

The scientific discourse on environmental impacts of events is primarily based on sustainability research (Fredline, 2005:5). Most scholars highlight environmental effects as part of the concept of sustainability. One of the earliest studies was published by Bramwell in 1997, in which the impacts of the *World Student Games* (1991) on the sustainable development of the host destination was analysed. It covered economic efficiency, social justice and ecological integrity of event management before, during and after the event; ecological dimensions are rarely covered (Köhler, 2014). Bramwell revealed that sustainable development programmes are very important, especially in the pitch period, but must be rated lower due to their short duration. This is true for pitches as well as for implementing a meeting or event nowadays, as most *requests for proposals* (RFP's) require a sustainability statement. Harris and Huyskens (2002) also included an evaluation of ecological impact in their perspective on sustainability. Their study focused on Australian events, which already actively strive to reduce ecological effects (Sherwood, 2007; Köhler, 2014). Other authors consider ecological effects in their *triple bottom line evaluation*. Fredline *et al.* (2005) developed a set of indicators for measuring the sustainability effects of events and used three economic, four ecological and twelve social indicators. The three dimensions are then summarised in a synthesis diagram with the aim of evaluating overall sustainability performance.

In terms of environmental impacts, the authors suggest transport challenges and offer solutions. Moreover, their rating scheme also considers the consumption of resources such as energy and water. Based on this work, Sherwood (2007) broadened his set of indicators to include sustainability. He also integrated the consumption of energy and water, the usage of renewable energies as well as waste management into his evaluation concept and translated them into specific indicators (Wall and Behr, 2010:9; Köhler, 2014; Sakschewski and Paul, 2017).

3.4 Approaches to identifying sustainability indicators

We have seen that there are several different guidelines, schemas, standards and norms out there, but significant confusion remains regarding both choice and importance (Weaver and Lawton, 1999; Wall and Behr, 2010; Köhler, 2014). Clarity is sorely lacking on critical measures and monitoring approaches for sustainable association events (Weaver and Lawton, 1999; Sherwood, 2007).

“The process is also likely to be impeded by the spatial and temporal discontinuities between cause and effect; that is, many of the impacts identified within the event management process and/or within a specific time period actually have their causes in other areas or times, while events within the destination may have consequences in other destinations and time periods” (Griffin, in Raj and Musgrave, 2009:44 ff).

Redcliff (1987) identified the following main aspects with regard to sustainability: The need to halt environmental degradation and ecological imbalance, the need to avoid impoverishing future generations, and the need for equity in quality of life among present-day populations. However, not only environmental protection, but also economic development and social cohesion are important considerations as well, as was shown in the literature review (Dooris, 1999). “Carrying capacity” is a management concept described by Theorbald (1998) as important to understanding the limits and control of activities such as tourism or events which may jeopardise the long-term, sustainable use of limited resources.

Moreover, the impacts of events and potential other impacts through other factors must be differentiated. This requires differentiation between the scope of action of the event managers vis-à-vis sustainable event management and regional sustainable development which can only be achieved in cooperation with local stakeholders. In this context, Griffin (2009) underscores the importance of collaboration between industry (i.e. the events and tourism industry) and the local community where an event takes place (Wall und Behr, 2010; Sakschewski and Paul, 2017; Köhler, 2014).

Several indicator systems have already been developed. One of the most familiar ones is rooted in the *Organisation of the Economic Co-operation and Development's* (OECD) Pressure-State-Response framework and was originally developed for environmental reporting. It makes use of the following indicators:

- Pressure indicators: these refer to the impact that activities have on the environment.
- State indicators: these describe the current situation of impacts (pressure) to be measured.
- Response indicators: these measure policies and actions occurring due to changes in the state of sustainable development.

Critics of this approach point out that it does not capture participants' experiences, here the event itself including its economy, culture and customs. Implementing the above-mentioned model from the OECD according to the UNEP/UNWTO structure *Making Tourism More Sustainable: A Guide for Policy Makers* (2005), can be paraphrased in the context of events (Denman, 2006) as:

- Define sustainable events and identify what needs to be addressed.
- Identify a working structure and strategies needed to be effective.
- Identify tools that can assist in managing an event.

Complex pools of indicators might pose a challenge as well, as distilling the most important and best-matching information and focusing on an appropriate number of indicators might be confusing. Integrating stakeholders might also be difficult, depending on the type of event and its organisation. A realistic and feasible consideration of the time and efforts needed for data acquisition is essential here, as there are several pitfalls in terms of incorrect estimations. As will be shown later in the model of integrated sustainable event management including communication in Chapter 5, processes must be anchored in every management level, from senior to junior management to operations (top-down approach). Open communication as well as clear and visible portrayal of chosen indicators and challenges can reduce the potential for conflicts and increase the level of transparency achieved. Independent supervision of the process ensures a target-oriented integration and a work-flow for all stakeholders. The set of indicators should display, as clearly as possible, what the sustainability strategy has achieved and make the effectiveness of measures visible for all to see. Multiple event impacts (depending on type of event) and the association's perspective (i.e. the stakeholder approach) should also be included in the social-aspect approach.

Other studies identifying a set of event-specific indicators to provide a more standardised means of assessing the three TBL dimensions include the above-mentioned dissertation from Sherwood (2007) and the framework put forth by Fredline *et al.* (2004, 2005) (Rozier *et al.*, 2011). Fredline *et al.* analysed more than 300 academic publications on events and event impact assessments and developed a seven-step indicator development process comprising 20 key impacts. Fredline *et al.* (2005) proposed a multi-dimensional model for event evaluation, but Rozier *et al.* (2011) concluded that further research is required in order to develop a more standardised measurement concept.

This approach enables the identification of changes sought after in specific industries and relates it to the production of greenhouse gas emissions (Collins, Munday and Roberts, 2012:580). This allows for the analysis of greenhouse emissions across the entire industrial added value process (cf. Miller and Blai, 2009). This means that the ecological effects of event-induced demand can be analysed, which is valuable due to the fact that ecological and economic impact analyses can be done in parallel using the same data sources (Collins, Munday and Roberts, 2012:580). The insights gained can help form statements on the connections and influences between economic benefit and ecological costs.

Based on these findings, Köhler (2014) developed her own conceptual framework for measuring the regional economic impact of events. This framework is divided as follows:

Regional Economic

- Value chain impacts
- Effect on earnings and employment
- Fiscal impacts

Tourism impact

- Awareness and publicity
- Image impact

Social

- Involvement
- Network impacts
- Expansion of cultural programme
- Infrastructure

Environmental

- Mobility
- Accommodation
- Energy use
- Water use
- Waste
- Noise
- Location

Other

- Structural impacts
- Sustainability awareness
- Political impacts

We can conclude that the use of the three pillars of sustainability is useful, as it reflects a holistic approach expanded by a fourth touristic pillar. A multi-dimensional approach to measurement will help all involved stakeholders acquire a detailed picture of events and their potential impacts, risks and benefits. Different measurement methods were introduced over the previous sections, all of which have both positive and negative aspects to consider: positive in that they can be employed and adjusted flexibly, and negative in that more know-how and time are needed to get accustomed to these different methods. Another criticism is that it is more a summary of different models and approaches instead of its own independent model. Finally, there is also no weighting involved in the analysis.

Other studies from Stettler *et al.* (2005) and Gibson, Kaplanidou and Kang (2012) presented their own measurement approaches as well. Stettler *et al.* (2005) developed an instrument for measuring the sustainability performance of sporting events based on the balanced scorecard approach. Here, the three sustainability dimensions are illustrated according to several key indicators. In terms of environmental figures, they include information on transport, energy consumption, air and climate pollution, and waste management. Gibson, Kaplanidou and Kang (2011) compared different sporting events in terms of sustainability impacts. The ecological dimension includes here only a qualitative evaluation of the organisation committee and the booked venue.

Beyond these sustainability approaches that offer insight into the measurement theory of the ecological impacts of events there are few studies which consider ecological impact assessment (Köhler, 2014). Only two studies focus critically on ecological impact assessment, namely Collins, Munday and Roberts (2012) as well as Collins, Jones and Munday (2009). Both studies evaluate the usefulness of an environmental input-output analysis and the ecological footprint for evaluating the ecological effects of mega sport events (*ibid*; Köhler, 2014). Jones (2014) evaluated the use of checklists for identifying the environmental impacts of events. Based on qualitative interviews with organisers and venue managers she was able to identify relevant environmental topics as well as check data availability and the perceived benefit for stakeholder groups.

The literature review revealed a growing number of studies focusing on sustainable event management (Hall, 2012; Merrilees and Marles, 2011; Mair and Jago, 2009; Sherwood, 2007; Köhler, 2014; Oblasser and Riediger, 2016; Sakschewski and Paul, 2017). These focus particularly on the current challenges facing the events and meetings industry in terms of environmental issues (Jones, 2012; Laing and Frost, 2010; Lucas and Wilts, 2004) as well as methods and management approaches for reducing negative ecological impacts (Merrilees and Marles, 2011; Lawton and Weaver, 2010; Laing and Frost, 2010).

These appears to be a research gap regarding the use of measurement instruments to analyse and realistically depict the environmental influence of events (Köhler, 2014). However, these useful tools would allow us to identify key action fields and steps for eco-friendly / sustainable event management. Collins, Jones and Munday (2009:86) highlight that both qualitative and quantitative indicators must be taken into account and the focus should lie on developing strategies for reducing negative influences on the environment. Laing and Frost (2010:265) point out that case studies are essential to identifying key success factors, as they can be used to pinpoint appropriate approaches and measures. According to Gibson, Kaplanidou and Kang (2011:10), in the context of a sustainable management strategy this can lead to cross-leveraging research of these impact areas. The literature also reveals a research gap in terms of association meetings and related events. Further studies and research will be evaluated in the following in order to illuminate and assess the current state of event sustainability impact analysis.

Event impact research has developed over the past thirty years alongside a growing focus on events as motors for local economies (Getz, 2018; Getz, 2019; Sherwood, 2007; Köhler, 2014; Hall, 1992; Ritchie, 1984). For organisations, political institutions, and decision-makers, the economic benefit was the primary interest, which led into a research focus on tangible economic effects (Preuss, 1999; Crompton, 1995; Burgan and Mules, 1992). Naturally, a variety of instruments and validation methods, for instance for the identification of added value, income or employment effects, were developed as a result (Crompton, 1999; Burgan and Mules, 1992; Delpy and Li, 1998; Köhler, 2014; Sakschewski and Paul, 2017). Authors such as Dwyer *et al.* (2001:196), Carlsen, Get and Soutar (2001:248) criticise, however, that there is no standardised approach to calculating economic impacts due to the high complexity and lack of transparency in economic impact analyses (Sherwood, 2007; Köhler and Dregner, 2012:2003; Crompton, 2006; Preuss, 2005).

In contrast, little effort has been put into researching the intangible effects of events (Fredline, Jago and Deery, 2003; Sherwood, 2007). Only since the end of the 1990s has a more intensive research approach towards the intangible social and ecological impacts of events emerged. The past ten to 15 years have seen a marked increase in the number of studies on the social effects of events (Fredline, Jago and Deery, 2003; Delamere, 1997; Sherwood, 2007; Köhler, 2014; Getz, 2019). Scholars acknowledge the importance of supporting local inhabitants as a key success factor for implementing and ensuring acceptance of an event (Fredline, 2000; Köhler, 2014). Securing this support requires the identification of both positive and negative impacts of specific events *vis-à-vis* different stakeholders. More, these impacts must be understood incorporated into planning such that negative aspects are minimised and positive ones maximised. Most studies take subjective approaches, which is why validation scales exist for this topic (Fredline, Jago and Deery, 2003). Of special importance for educational events are also employee's social rights, which are increasingly taken into account (Sherwood, 2007; Köhler, 2014; Getz, 2019).

Environmental impacts have also been analysed thoroughly, though mostly for past mega sporting events (Hall, 2012). The increasing development of instruments and tools for measuring and calculating, for example, greenhouse gas emissions in the meetings industry underscores a positive trend with this issue. As was explored in Chapter 2, the publication of the Brundtland Report also led to an increasing focus on the environmental aspect of sustainability that extended to tourism and event research (Jones, 2014). Schlenker, Getz and Foley (2010) highlight the challenges of data availability and usage here, however.

Besides neglecting the intangible effects of events, the current status quo in research is also distinguished by the exclusive use of one-dimensional impact analyses (Köhler, 2014).

Generally, only quantifiable economic figures or selected intangible effects are analysed; a holistic analysis of all impact areas is missing (Köhler, 2014). Authors such as Sherwood (2007) or Fredline, Jago and Deery (2003) underscore the necessity and importance of multi-dimensional approaches focused on a balanced *triple bottom line approach*. A cost-benefit analysis of events only delivers a one-dimensional perspective as well (Raj and Musgrave, 2009). Current event impact research focuses primarily on the positive effects of events, with few studies focusing on negative impacts (Fredline *et al.*, 2005). Scholars have issued calls for a more balanced analysis of both the positive and negative effects of events (Dwyer *et al.*, 2000; Köhler, 2014).

With regard to public leisure events, Burns, Hatch and Mules published in 1986 a cost-benefit analysis of the Grand Prix in Adelaide, Australia, that included social aspects for the first time. While an important contribution to event impact analysis research, it was limited to objective measures such as monetary measurement of time lost or property damage. In other words, social and ecological issues were neglected. Another approach towards a more balanced impact analysis was attempted by Dwyer *et al.* (2000), who included tangible economic effects, social effects and intangible economic effects. For a balanced measurement of the different effects of events they suggested using a weighted cost-benefit scale based on expert interviews for the non-quantifying effects. This was then employed for the qualitative analysis of an event (Köhler, 2014).

Based on the increasing focus on sustainability issues, the *triple bottom line approach* also saw more intensive use (Sherwood, 2007; Köhler, 2014; Hede, 2007:14; Oblasser and Riediger, 2015), with scholars developing various new approaches based thereupon for event impact analysis. Gans, Horn und Zemmann (2003) developed a method for a balanced cost-benefit analysis, which can be used ex-post facto for verifying success as well as ex-ante as a decision-helping instrument during the preparation period for mega sport events. Stettler *et al.* (2005) developed a holistic approach that also targeted mega sport events. They used the *balanced scorecard* (Figge *et al.*, 2002) as the basis for their approach, morphing it into a “sporting event scorecard” for documenting economic, ecologic and social effects of events using indicators. This approach summarises all quantifying effects, but can only be used when comparing other events (Köhler, 2014). Fredline *et al.* (2005) suggested another scoring approach in which each dimension (economic, social and ecological) is measured according to specific indicators. The results are then synthesised into a three-dimensional diagram and each effect is weighted on a ten-point scale. The comparability with other events is in the focus here as well. These research studies of Fredline *et al.* (2005) were the starting point for follow-up work from Sherwood (2007), who developed and broadened a set of indicators for these three areas of impacts.

The *triple bottom line approaches* described above are of special importance for holistic sustainability impact measurement approaches and for standardising measurement instruments as described in Chapter 2. This is also due to the comparability of studies. This standardisation may result in the impacts of events being reduced to only a few indicators, which might result in less information, especially in the area of intangible effects (Sherwood, 2007; Köhler, 2014). In terms of tangible effects, current TBL approaches are limited as well.

A holistic and balanced measurement approach in the meetings and events industry must take into account the different influence areas. This leads to the natural assumption that the appropriate measurement instrument will not be reduced to only a few indicators. Indeed, it is important to gain as much information as possible in order to analyse the positive and negative effects of an educational event holistically and optimise it for the specific stakeholders. This in turn will increase the value and benefit of an event (Köhler, 2014).

As this approach is very broad, other models and approaches will be introduced in the following. Griffin (2009) developed an indicator system explicitly for event management. Here, indicators are intended to support sustainability-focused decisions by transforming the so-called *DIT-ACHIEV-Model of Sustainable Tourism Indicators* from Dit (2010). The system is divided into six dimensions, which are further categorised into subcategories each connected to two indicators. However, as Wall and Behr (2010) have already criticised, the indicators are relatively vague. Though specified by “assemble parameters”, their use does not appear advisable for association events, as not all required data can be gathered by the event organiser.

Griffin (2009:46) wrote that the need to derive indicators from existing models was to be expected, but many models were found to be restrictive in identifying robust indicators, thus new approaches have been developed in spite of the many problems associated with indicator development (e.g. poor availability of data sets, numerous interests to consider, subjectivity) (Wall and Behr, 2010, Griffin, 2009). Weighting of indicators is a next step, as flexible indicators are required for broad applicability (Sakschewski and Paul, 2017).

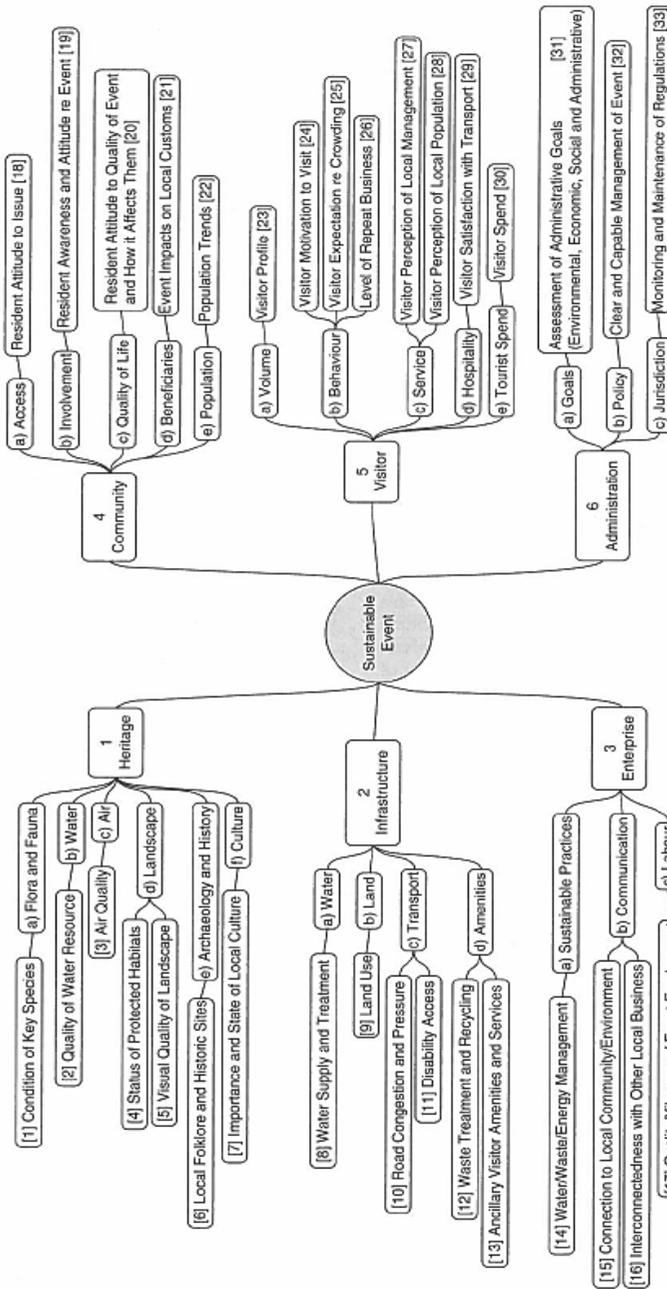


Fig. 5.1. The DIT-ACHIEV Model of Sustainable Tourism Indicators.

Figure 27: DIT-ACHIEV model of sustainable tourism indicators

Source: Raj and Musgrave, 2009:47

Griffin (2009:52; adapted from Denman, 2006) listed therefore a methodology for formulating a sustainable event strategy:

- Create a multi-interest working group
- Agree on initial issues to investigate
- Undertake wide consultation
- Prepare a situation analysis, including destination performance, needs and opportunities
- Consult and agree on key issues and priorities
- Determine strategic objectives
- Develop an action programme
- Establish or strengthen instruments to facilitate implementation
- Implement actions
- Monitor results

Based on existing event literature, Wall and Behr (2010) developed an indicator system for event management which takes both qualitative and quantitative indicators into consideration (Wall and Behr, 2010; Sakschewski and Paul, 2017). Nine studies were compared and analysed in a universal summary that sought to consider all relevant factors. The system is divided into nine topic areas, of which seven rate the direct sustainability of an event and two the impacts related to the event's sustainability. Impact indicators and operative performance indicators are assigned here to sustainable core targets. Impact indicators refer to the desired impacts, whereas performance indicators describe the indicator/measurement category for the fulfilment of pre-indicated targets (Sakschewski and Paul, 2017). Fields of action are profitability, warranty of health and safety, sustainable value chain, use of resources, reduction of emissions, protection of the social and natural environment, achievement of stakeholders' requirements, community development as well as the spread and increase of sustainable education (Wall and Behr, 2010).

Sakschewski and Paul (2017) summarised the impact indicators in connection with performance indicators as follows:

- Profitableness: finances, satisfaction of target groups and financial supporters, perspectives of the event
- Warranty of health and safety: security and risk, labour conditions and labour security
- Sustainable value chain: products, services, energy, water, waste, reduction of emissions, i.e. CO₂, noise pollution, other noxious emissions
- Protection of the social and natural environment: venue, biodiversity, traffic
- Achievement of stakeholders' requirements: integration of stakeholder groups, social community, local culture and tradition
- Sustainable community development: regional-economic development, quality of life, perspectives for the region, development of infrastructure
- Spread of sustainable content and increase in education for sustainable development: information, consciousness and values

Wall and Behr (2010) underlined that not all indicators can be derived from event literature: some have been deduced from business management or sustainability-related literature, others were developed by the authors themselves. Sustainability indicators are chosen as measurement tools in order to list sustainability-relevant issues in a hybrid schema (Wall and Behr, 2010; ISO 1999; Bell and Morse 2008). As this can lead to information loss, Bell and Morse (2008 in Wall and Behr, 2010) see special relevance in the process of reduction: indicators must be related to a defined situation, i.e. event. The coherence of methodology as well as the interpretation of results must be testable. However, sometimes a clear definition is only possible during

the application of indicators and some indicators can only be defined for a specific event, for instance in relation to size, type or topic (Wall and Behr, 2010). The Global Reporting Initiative (GRI) highlights in their guidelines for sustainability reporting that indicators should correspond to quality criteria such as accuracy, precision, clarity, balance, timelessness, comparability and reliability in order to ensure long-term assessment and detect future changes (GRI, 2006).

Wall and Behr (2010) also divided indicators according to the context for their measurement. They figured out that indicators can relate to a condition, impact of action or direct on quantifiable numbers. ISO 14301 differentiates, for example, between environmental condition indicators and environmental key performance indicators (divided into operative performance indicators and management performance indicators) (ISO, 1999). Environmental condition indicators (e.g. concentration of traffic-induced emissions at an event destination) offer information on the local, regional, national or global condition of the environment. Operative environment performance indicators (e.g. total consumption of fuel caused by participants' mobility) provide information on environmental performance in the operative area of event organisation (Wall and Behr, 2010). Environmental key performance indicators (e.g. the amount of support for public transport and its use) describe actions for improving the environmental performance of an event and/or the organising association. Accordingly, Wall and Behr (2010) concluded that (environmental) condition is the result of a specific performance. As event-evaluation literature continually speaks of "impacts", this term is specified and used in the Wall and Behr (2010) paper as well as in this study. Moreover, the aspect of performance is integrated, leading to a focus on sustainability performance (depicted through operative performance indicators) which work towards sustainability impacts (depicted through impact indicators). This differentiation will be illustrated in greater detail shortly.

Economic requirements for implementing events have been discussed thoroughly in event management literature (Wall and Behr, 2010; Getz 1997; Goldblatt 1997; Bowdin *et al.* 2006, Köhler, 2014, Sherwood, 2007). Long-term relationships with event participants and cooperative agreements with sponsors and suppliers are seen as basic requirements for a profitable event (Wall and Behr, 2010; Ritchie 1984; Bramwell 1997; Lucas 2007; Fredline *et al.* 2005; Griffin 2009, Getz, 2019). Other scholars list criteria such as a will to innovate, which relates to developing new perspectives for an event as a precondition for sustainable economic development (Getz and Andersson 2008; Lamberti *et al.* 2009). As Wall and Behr (2010) concluded, the event manager strives to establish an event at a destination or as a core PCO to secure the repeatability of the event (also at different destinations). Events must turn a profit, not only for the organising agency, but also for sponsors. Otherwise it will lose its ability to attract internal engagement (e.g. staff) and external stakeholders (e.g. suppliers) (Wall und Behr, 2010).

Indicators vary, naturally, due to the type of event. Key indicators for association events will be discussed presently and in the model presented in Chapters 6 and 7.

Wall and Behr (2010) proposed in their model a full table of sustainability and event-related indicators. The economic ones will be provided here as an example:

Area

- Finances
- Satisfaction of the target group and financial sponsors

Impact indicator

- Financial scope
- Long-term cooperation with financial sponsors
- Long-term relationship with participants
- Image of the sponsors and the venue

Performance indicator

- Total returns on capital
- Return on Investment (ROI)
- Financial leverage
- Stakeholder Value
- Expenses of participants
- Expenses of sponsors
- Average length of contracts
- Participants' profile (age, origin)
- Number of and relationship with participants
- Brand awareness
- Perception of participants from sponsors' POV
- Perception of venue

Measurement

- Accounting
- Evaluation of contracts
- Survey and investigation during the event

This is only an excerpt; the full list can be found in Appendix A9. Other topics in the Wall and Behr model (2010) include health and safety, which was taken from event management literature (Abbott and Geddie 2000; Kemp 2004). This includes safety and security for participants during the event as well as issues indirectly caused by the event, such as protests or increased traffic. It also encompasses employee protecting, taking their rights and motivation for the job into consideration, mitigating criminal intent, and protecting against disease and illness (Wall and Behr, 2010; Getz, 2007; Huntington, 2000). BSI 8901 explicitly states the fair treatment not only of employees, but also of volunteers is an important aspect of a sustainable event management (BSI 2007).

This model asserts a strong practical orientation. The detailed explanations can be used as a comprehensive guideline and the amendments of the impact and performance indicators ensure that topics are less abstract and easier to understand. As it is rooted completely in pre-existing event literature, a holistic approach is ensured. An additional advantage is that it takes both short and long-term sustainability impacts into account. As the topic of sustainability itself is future-oriented, this aspect can be considered essential (Wall and Behr, 2010).

However, as the paper was published 2010, the literature it relies on is dated. This is problematic especially in a dynamic industry such as the events and meetings industry. The years since have seen stronger regulations introduced as well as new technical innovations which might more effectively advance sustainable event management. In other words, the model could use an update. Complexity might also be a barrier in this case due to a lack of time and capacity. Some

quantitative indicators provide more informative value when compared over the years with similar events. One-time, unique events might be disadvantaged. Moreover – but this applies to all models, admittedly – survey statements are highly subjective and might vary due to the current mood of the interviewees. As surveys on site or during an event might be regarded as irritating, obtaining enough data might be difficult (Schreiber, 2012).

Wall and Behr consider not only current indicators, but also indicators such as participant satisfaction, sustainable education and regional development. Their categorisation is therefore a comprehensive approach for identifying different indicators. The indicators suggested by Wall and Behr (2010) offer only approaches to measuring sustainability. Koehler discusses the different measurement instruments in more detail, but a measurement and management concept such as the Sustainability Balanced Scorecard, which is already in use in many enterprises and associations, is a practical method to visualise sustainability indicators (Wall and Behr, 2010). Behind every event there is an organiser who acts like (and often is) an enterprise or association that could make use of the SBSC, too. Thus this instrument deserves an introduction, which will lead into a comparison and critical reflection of these models afterwards.

In order to explain the SBSC, the original model which serves as its basis, the *Balanced Scorecard* (BSC), must be briefly introduced first. The BSC was developed as a strategic management tool by Norton and Kaplan (1996) in order to change the corporate strategy into actual operating figures (Wall and Behr, 2010). Critical success factors are derived from the vision and strategy of a company or association, as are key indicators and qualitative indicators needed to measure both the status quo and the extent to which goals are achieved.

This can be derived from developing cause-and-effect relationships. Therefore, the BSC displays the common vision of an organisation in which single core processes can be identified (Boersch and Elschen 2007). It was developed in response to critiques to the one-dimensional and past-oriented focus of accounting, taking “soft factors” such as customer relationships or employee qualifications into consideration for an organisation’s success and long-term competitive advantage (Hahn and Wagner, 2001). The term “balanced” refers to a balance between quantitative and qualitative targets, past and future-related figures, as well as internal and external stakeholders (Bieker and Dyllick, 2003). Therefore, the BSC originated as a tool for performance measurement divided into four perspectives in order to integrate these soft factors and make them accountable. The four perspectives are finances, customers, internal processes as well as learning and development.

The structure of the Balanced Scorecard which evolves out of these four perspectives must be adapted individually to a specific corporate strategy. The four perspectives connect single output quantities and performance drivers, as they are combined in causal ways in order to align with the corporation’s long-term financial success. A Balanced Scorecard always refers to a specific strategic business unit, adapted to its specific vision and strategy. Using a top-down approach, individual elements such as targets, key performance indicators, measures and parameters are derived. Top-down in this context means breaking down the largest element into smaller ones in order to go from top to bottom (Hahn and Wagner, 2001). For its successful application, continuous communication regarding the targets is as important as each employee’s understanding of their individual responsibility (Boersch and Elschen, 2007) (cf. the *Model of Integrated Communication*, Chapter 5).

The SBSC is an evolved version of the BSC. It incorporates sustainable targets, measures and indicators which add a societal perspective to the four original ones in order to cover the requirements of different stakeholder groups. A cause-and-effect diagram, which is developed

via the causal relationships between the targets, can display the extent to which the concept of sustainability contributes to the success of the specific corporation, enterprise, association (Oblasser and Riediger, 2015). By using the SBSC, sustainability can be more easily visualised for every stakeholder and targets operationalised more precisely. For this reason, a sustainability strategy must be formulated first to distil the different targets and necessary measures (Oblasser and Riediger, 2015:132).

It is essential that sustainable policies and competitive strategies align, as successful implementation is only possible when this is first accomplished and in a transparent fashion (Bieker and Dyllik, 2003). The overall aim is to integrate the three aspects of sustainability – economy, ecology and social issues – into a transformative process for an organisation’s corporate strategy and improve its sustainability performance at the same time.

The BSC is a good foundation for implementing sustainable management strategies, as it is a balanced approach, meaning, as explained earlier, that not only hard quantitative measures are taken into account, but soft ones as well. Additional environmental and social aspects are aspects not connected to the economy, rather they are seen as important quantitative figures due to their ability to influence corporations. Moreover, the BSC illustrates causal relationships stemming from environmental and social aspects, allowing these to be aligned to companies’ and associations’ long-term success prospects via cause-and-effect chains as well as be integrated into management systems (Hahn and Wagner, 2001; Figge *et al.*, 2005).

As environmental and social aspects influence enterprises, there are a few ways to integrate these two issues into the BSC in order to transform it into a SBSC. The introduced perspectives are valid beyond ecological management systems; only the goals of these different perspectives must be adapted to sustainable event management. In order to rank the sustainability aspect higher, planning starts from that point (bottom-up).

Financial perspective

- Increase profitability
- Maintain the budget
- Distribution of budget
- Multiplication of exhibitors, sponsors and/or registrations
- Reduction of material costs
- Increase sales of tickets
- Increase awareness: reactions after the event

Stakeholders

- Increase satisfaction
- Increase re-sale rate
- Increase duration of visit
- Increase number of recommendations

Processes

- Increase time and conversion rate
- Ensure tempo during implementation
- Involve sustainability goals
- Decrease interruptions in processes or executions

Learning

- Enhance team knowledge on sustainability

- Increase process satisfaction

Sustainability

- Decrease CO₂ footprint

Another advantage of the SBSC when used for the controlling and evaluation of events is the strong integration of institution, event and sustainability goals as well as feasible assessment in terms of enterprise performance management. This is why the SBSC is an instrument which strategically integrates relevant sustainability aspects into conventional perspectives or, in other words, expands these to include non-economic perspectives (Schaltegger and Wagner, 2006; Schaltegger and Dyllick, 2002; Figge *et al.*, 2002; Hahn *et al.*, 2002). Wall and Behr (2010) agree that this concept is adaptable to the specific requirements of a sustainable event management concept and constitutes far more than a single measurement approach, but it was not created especially for that industry. Sustainability must be integrated at least partially into the corporate or association's strategy, as the SBSC requires a strategy to work. Therefore, implementing an organisation's strategy will lead to the analysis of relevant environmental and social factors, which then leads to a certain impact the organisation has on the individual prioritised factors.

In contrast to other methods and schemas, the SBSC is not only a guideline, but can be seen as a type and tool of systematically identifying and implementing all relevant criteria. This means that management must ensure by itself to implement sustainability aspects across the entire value chain. Thus the SBSC is not particularly useful for achieving radical changes in an organisation, as this must be accomplished via the strategy formulation itself, which can then be checked via continuous evaluation based on the SBSC. The SBSC is instead suitable as an instrument for the assessment of an individual set of goals. By connecting and visualising all perspectives, the SBSC can help management to consider sustainability as an active part of their organisation.

An advantage is the firm anchoring of the three pillars of sustainability, i.e. environmental, social and economic aspects (i.e. TBL approach). Relevant factors are assessed in person, which might lead to subjective or distorted results. As with the Köhler model, no weighting occurs, which scholars view with skepticism. The connection between various aspects of sustainability is not specified, which might lead to increased risk of green washing. Finally, it must be emphasised that the use of the SBSC is not suitable for extensive changes or real measurement, but more for analytical processes.

In 2014 Köhler developed a conceptual framework for events as instruments for regional marketing purposes and evaluated sustainability aspects in a case study of "melt!-festival 2011". Here, she considered a TBL concept expanded by touristic impacts on regional development. Moreover, she emphasised aspects of regional marketing and of other areas less often taken into account (Köhler, 2014). Economic aspects consider the in- and outflow of cash and funds in the region. Outflow is seen as negative for the region as event-related expenditures flow into other regions and therefore provide no added value to local suppliers and enterprises. Accordingly, the inflow of cash (whether investments or sales) leads to positive impacts for the region. Köhler considers the primary regional economic impulse, based on an economics-based approach: the higher the outlying demand, the more funds remain in the destination and add value to the region. Categories for economic measurements here include production, income and employment, and the total economic effect is calculated from the primary and secondary effects thereof. Moreover, the primary effect is divided into direct and indirect effects (Köhler, 2014): the former describes the impact of event-induced expenditures on regional economic development,

while the latter take such impacts into account as suppliers' contracts to regional enterprises concluded in relation to the event, satisfying participants' demands and providing other services.

The secondary effect describes the impact of consumption expenditures of all stakeholders involved; here, the added value-effect is important (*ibid*). These include the revenues from all directly and indirectly connected companies, and the added value depicts the value growth of an enterprise within a certain period of time (Stettler *et al.*, 2005). The income and the employment effect, which reflects jobs created due to the event, can also foster sustainability. The fiscal effect describes incomes in terms of trade tax and the municipal share of wage and income tax. At the same time, negative economic impacts might include price changing effects, i.e. higher prices for products and services due to (temporarily) skewed supply and demand. The suppression effect might also take effect, for instance due to negative implications such as waste, noise or increased infrastructure congestion (Köhler, 2014). In order to minimise these effects, Köhler (2014) proposes stakeholder involvement in the event management process.

The tourism effect had not been explored in previous models. Through certain events such as the Olympic Games, destinations can increase public awareness. The more appealing the event is for the public, the stronger the publicity will be. The image effect, in contrast, is a qualitative assessment approach meant to improve the image of the destination (Freyer, 2009).

Social effects here include the direct impacts of the event on both humans and the local environment. Inclusion of local stakeholder groups is considered very important here (Köhler, 2014). This can lead to volunteering by local inhabitants and might also increase the regional cultural landscape and foster social exchange. Special sessions within the overall event could be opened for locals in order to integrate and include them. This, in turn, may produce more social capital growth for the local community (Richards *et al.*, 2013). This is called societal cohesiveness: the integration of different stakeholders into an event or meeting. It is also important that the event matches the social values of the destination, as a distant local community is not conducive for a successful event. Indeed, it may even harm it (Köhler, 2014). Local infrastructure congestion could also be considered a negative social effect in addition to a negative economic effect as mentioned above.

The environmental pillar focuses on minimising the environmental impacts of an event on the local eco-system. Greenhouse gas emissions are central to that (Sherwood, 2007). Therefore, participant mobility in terms of arrival and departure as well as during the event is a key issue. The same applies to accommodation, energy usage, catering, waste management, printables, noise pollution, legacy, and direct and indirect water consumption (Köhler, 2014). The so-called "other effects" consist of the structural effect (Bowdin *et al.*, 2011:90). Destinations may profit from newly installed infrastructure (e.g. after the Olympic Games), which can be used after the event (Köhler, 2014; Ritchie *et al.*, 1984). Moreover, the event should also match the values and image of the region, as this could otherwise lead to negative impacts on social and economic sustainability. As Wall and Behr (2010) already underlined, creating awareness and consciousness towards sustainable topics is important in its own right.

Finally, the inclusion of a touristic pillar might be seen as useful here in relation to events. Despite the sharp increase in interest for the environmental impacts of events, efforts to measure the social and economic impacts of events are still rare, as the discussion above has shown (Fredline *et al.*, 2003). Moreover, Köhler's multi-dimensional approach for measuring sustainable event management and its regional impacts stems from different measurement and evaluation methods (expert interviews, surveys, literature reviews) and takes the three quality criteria

of an assessment – i.e. objectivity, reliability and validity – into consideration. Objectivity results from the general verifiability of the assumptions and facts the model is rooted in. Conceptual framework and criteria are published, ensuring the transparency of the discussed model. In terms of reliability, it can be stated that the underlying surveys in particular paid due respect to the comprehensibility of the question items, which was confirmed by the study accompanying the evaluation. No established methods for the reliability check were used, as the author argued that they were not applicable to the object of research and might have excluded important aspects of the measured constructs. In connection with the validity of research, content validity has been used as quality criteria and a self-assessment based on experts' opinions was conducted. Operationalisation has also been adapted to the structure of this particular event in order to bolster the reliability and validity of the research (Köhler, 2014). Technically speaking, an independent tool was developed, but different models, approaches and measurement methods were summarised along the way. On the one hand, this allows for adaptability to different event scenarios, but on the other hand the theoretical structures of the model might be too complex for practical application, which would impair the same.

Köhler provides a comprehensive compendium of different measurement methods with regards to multiple event effects discussed in this chapter. Often, these indicators exceed those from Wall and Behr and offer additional detailed methods for measuring sustainability. By analysing economic, environmental and social impacts, the sustainability of an event can be measured. As already discussed, there are not only advantages, but also disadvantages such as real-world applicability which might be hindered by a lack of time, manpower, skills or budget. Measuring the social and economic effects requires validity, reliability and objectivity, which might be difficult to achieve with interviewees alone. This can influence the results tremendously.

The three models discussed here are compared in Table 20 using this author's own assessment criteria. The list focuses on the main aspects of each model:

+ considered / - not considered / (-) depending on user	SBSC	Köhler	Wall and Behr
Environmental			
Reduction of emissions	(-)	+	+
Protection of the natural environment	(-)	+	+
Protection of resources	(-)	+	+
Social	(-)	+	+
Pressure on social environment	(-)	+	+
Added value for the region	(-)	+	+
Structural effects	(-)	+	-
Safety and security of visitors	(-)	-	+
Economic	(-)	+	+
Profitability	+	+	+
Revenues in the region	+	+	-
Long-term development	+	-	+
Pre- and post-aspects in the value chain	(-)	+	+

Table 20: Assessment of event impact models

Based on Figge et al.; Köhler (2014); Wall and Behr (2010)

Materials required for an event, but also in the office, catering, decoration, print and communication material are discussed in the literature. Fredline *et al.* (2005), Lucas (2007) and Lamberti *et al.* (2009) underline the necessity of local and regional procurement and the usefulness of labels and certifications indicating the sustainability of products and services. Criteria discussed in event management literature also include the longevity, manageability, recyclability and reparability of products (Getz, 2019; Lucas, 2007; Wall and Behr, 2010; Köhler, 2014; Lamberti *et al.*, 2009).

Use of resources and the production of emissions, waste, water and energy as well as noise reduction are all areas discussed by scholars (Jones, 2014; Sherwood, 2007; Griffin, 2009; Musgrave and Raj, 2009). Tolerance, accessibility for all, use of participation potential and transparent evaluation are also listed (Ritchie 1984; Goldblatt 1997; Bowdin *et al.* 2006; Große-Ophoff, 2012). These listings illustrate that the whole spectrum of criteria has been taken into consideration. With their lists – divided into area, impact and performance indicators and including suggested forms of measurement – Wall and Behr (2010) created a handy tool for event managers and interested associations.

Direct comparison of these models is difficult, as the SBSC follows an individual approach. This leads to a rating of “(-)” for most points in Table 20, as the priority of indicators often depends on the user. The models of Köhler and Wall and Behr are quite similar in this regard: only the safety and security of participants and long-term development are not taken into account in Köhler’s framework, whereas Wall and Behr do not explicitly discuss the structural effects and income in the region. The latter model is the most practice-oriented approach, providing detailed, actionable ideas to event managers and associations. Neither model offers a

feasible approach to weighting the indicators. A static weighting would not be advisable, as it would not guarantee the best sustainable approach for the different events. An outdoor event in a rural area would focus more on environmental aspects, whereas an urban one would place the local community in the focus. A measurement of event sustainability is given in all models, but data evaluation is easiest when comparing similar events or the data from previous years/events, which can lead to the required continuous improvement. Finally, a balance of the three pillars is essential so as not to neglect any or overlook any trade-off effects in the results.

3.5 Evaluation of existing models

According to Oblasser and Riediger (2015:75), the use of a management system to organise sustainable events is essential, as it describes which tasks are necessary, how they correlate in order to achieve goals, and how already achieved goals can be improved upon. It systematises tasks and the required processes.

Event managers often make use of an implicit management system only, meaning decisions are mainly based on their own experiences. This might be disadvantageous in that these kinds of structures are connected to a single person: if this person departs the organisation, it may not be economically feasible for their replacement to start over from the beginning. Sharing knowledge is obviously essential and this can be done easily in a management system. Here, tasks, steps and responsibilities are shown and documented transparently, which helps to both achieve, maintain and improve upon quality. If such a management system is not yet available, organisations can also consider sustainability for a single event. These parts can be integrated at a later stage in the management system. If an organisation already uses a management system, social and ecological aspects of sustainability can be added easily.

According to Oblasser and Riediger (2015:76), a management system can help achieve a win-win-win situation for company, environment and society. A management system generally leads to transparent and efficient structures and working processes with clear responsibilities, decrease the time needed for discussions and deliberations. This facilitates complex event organisation with many different suppliers and subsections. Timetables, deadlines, responsibilities and tasks of all employees and suppliers involved can be integrated into the system alongside with sustainability aims. Moreover, legislation can be included, reducing the potential for liability; compliance and fair play guidelines must be observed for sustainable events as well. Additionally, systems controlling is also possible through a management system.

Any options related to energy, material or waste management can be defined and expanded to include sustainable processes. This can help, in return, to reduce costs (Oblasser and Riediger, 2015:77). Moreover, the use of a certified and validated management system can enhance the competitive position of the enterprise or association, as Oblasser and Riediger (2015:77) predict an increasing demand for sustainable events as well as more control over the supply chain with regard to social and ecological aspects. Positive communication with stakeholders of the event or agency can be initiated, which could increase customer loyalty (i.e. the association or delegates). An open-minded attitude towards future developments is, according to Oblasser and Riediger (2015:78), attractive for existing customers, potential new customers and employees. This fact can be an economic boon for the image of a single event, but also for the enterprise as a whole.

According to Oblasser and Riediger (ibid), this process requires the continuous improvement of both environmental and social aspects. Aims must be defined and implementation

documented in a transparent way. After checking the results, the process then starts anew. This characterises the task of a classical management system, of which ISO 20121, according to Hall (2010), would be a prime example. Based on the *PDCA principle* (compare Figure 29) with the aim of achieving a process of continuous enhancement in terms of a learning organisation, this is, according to the authors, essential to anchor sustainability as a process in the bedrock of the institution (Figure 28).

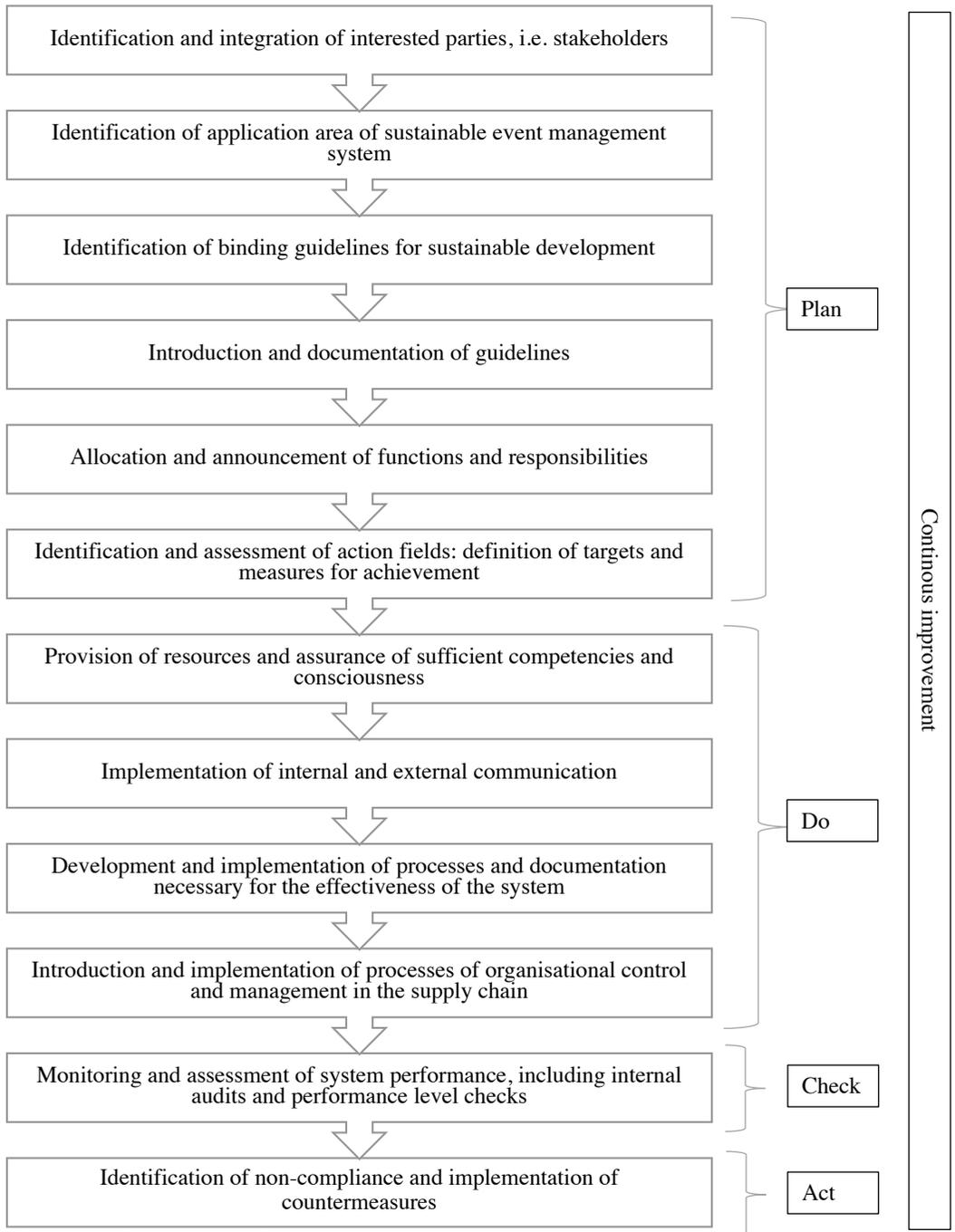


Figure 28: Process of sustainable event management

Source: own illustration based on Sakschewski and Paul (2017)

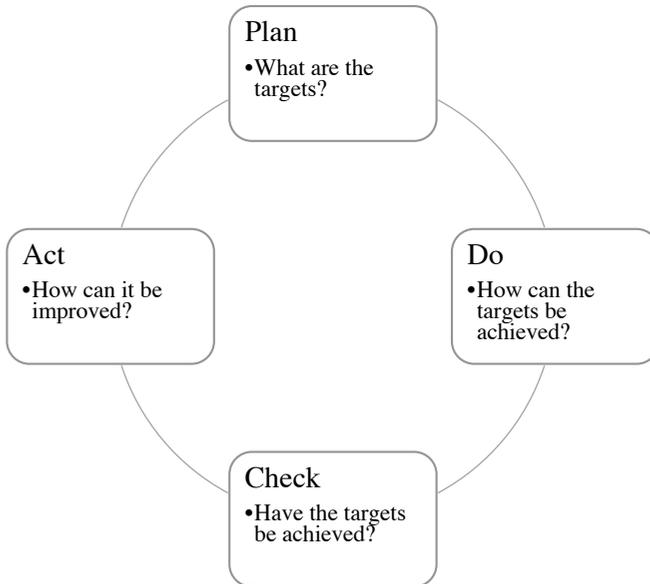


Figure 29: PDCA Cycle
Source: Deming, 1982

This four-step method is known from general business management and is used for verification and continuous improvement of processes. According to Oblasser and Riediger (2015), the first step is to establish objectives and processes necessary to delivering results in line with the goals. At this stage, conception, strategy, management programme, and goals are set. The chosen system will be implemented and used throughout the second step, while the third step (“Check”) requires internal and external verification through discussions, observation and audits. Lastly, step four (“Act”) is dedicated to improving upon processes, targets and measurements. New goals are discussed and defined here as well. This model supports the view of Raj and Musgrave (2009) who underline that “preparation in planning is paramount” (2009:6). Executing the cycle again will extend knowledge and lead to better goal achievement, but clear separation between the single phases is essential (Deming, 1982).

The *German Society for International Co-operation* (GIZ GmbH) also formulated its own model of sustainable event management:

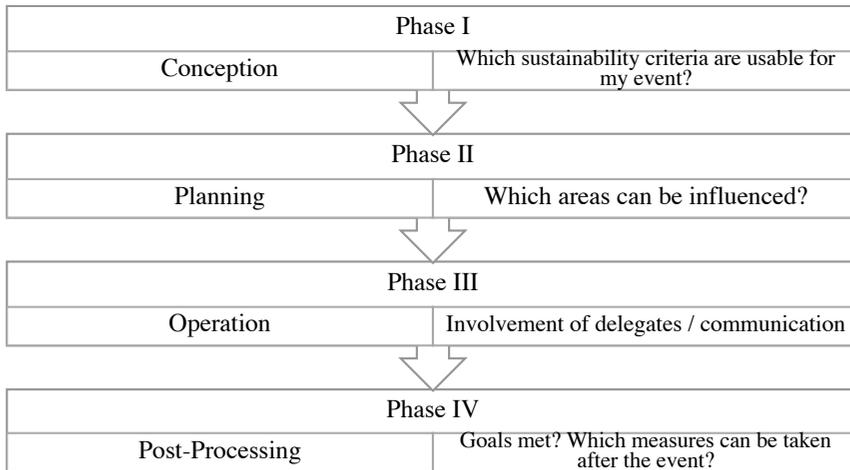


Figure 30: Model of sustainable event management

Source: GIZ GmbH, 2012

Fields of action involve here, for example, mobility, venue, accommodation, energy and climate, waste management, purchasing, communication, food and beverages, water, side events as well as social aspects such as gender and diversity, inclusion and international working standards (GIZ, 2012). Measures would include organic and locally or regionally sourced food (GIZ, 2012). As with many concepts, the ones mentioned here come in the form of checklists intended to facilitate sustainable event management. It is important to rate the opportunity for steering realistically. If, for example, a ticket for public transport is included in the conference fee, attendees still cannot be forced to make use of it. Beyond that, it also follows the principle “reduce, reuse, recycle or compensate what cannot be avoided” (GIZ, 2012). This approach is known the *Deming, Stewart, or PDCA cycle*, introduced in Figure 29, and is used by many associations, governments or authors to depict sustainable (meetings) management in a simple manner.

Another approach in this context is the previously mentioned *cost-benefit analysis (CBA)*. This is a formal discipline used by event organisations or associations to help assess or evaluate a project or business activity and make objective economic decisions accordingly (Raj and Musgrave, 2009:60). The technique was developed to gauge and enhance the quality and efficiency of any new business activity intervention and its causes and effects on different stakeholders (Farache and Perks, 2010). Within the feasibility stages of planning models, CBA can be used by event organisers to assess and evaluate the costs against the benefits of any new activity, product or service, and provide a prediction of economic impacts. This technique can help event managers and organisations/associations to identify the actual value of the economic impact being measured in a more standard format by assessing both the benefits and the costs incurred in the event process (Font, Guix and Bonilla-Priego, 2016).

Costs	Benefits
Noise reduction strategies	Financial gain for local business
Cleaning up the area	International exposure through media and marketing
Pollution	Developing community cohesion and pride
Reducing crime, protecting visitors	Creating jobs
Employment cost for workers and police	Cultural impact through increased tourism and visitors
Organisational and developmental costs	New facilities for the area

Table 21: Hypothetical scientific event, educational event

Source: Raj and Musgrave, 2009:61

The authors identified several benefits such as the assessment of the “monetary value of the event and the external effects of the event; it proposes expenditure decisions, adds value to the promotion of cultural pride, and looks at positive and negative social effects of the event” (Raj and Musgrave, 2009:61). In contrast, potential limitations which may occur are neglect of the “flow-on effects of the event, the ignorance of the overall impact of the event on the economy, and the compliance to place a monetary value on the event” (ibid). Although it aims to determine whether the benefits to the destination exceed the costs, it is seen as insufficient as a support tool for associations attempting to incorporate sustainable event management for the first time, which is why other models will be discussed later in the chapter.

In 1988 the *European Foundation for Quality Management* developed a management model to help organisations and enterprises improve their sustainability performance via a continuous process of enhancement. Event management comprises different tasks and activities, from planning to execution to steering (Holzbaur *et al.*, 2010). These tasks are divided into project phases with milestones describing the specific end for each phase (Sakschewski and Paul, 2017). The defined phases will be described in the following section. According to Holzbaur *et al.* (2010), there different factors and resources which are essential for managing an event. These are staff resources, process and quality management, staff development, event marketing, environmental protection, health and safety, market and customer orientation, as well as catering and risks (Holzbaur *et al.*, 2010). All of these aspects should be taken into consideration when planning an event in order to achieve a positive outcome. The *European Foundation for Quality Management* provides an overview over the tasks to be completed and the goals to be achieved in event management in the form of its *EFQM model* (EFQM, 2012).

The *EFQM model* allows for a holistic view of the organisation’s processes and helps to establish and implement a successful management system. It should detect potential threats and opportunities, while also identifying potential areas of enhancement. This helps to choose the right strategy.

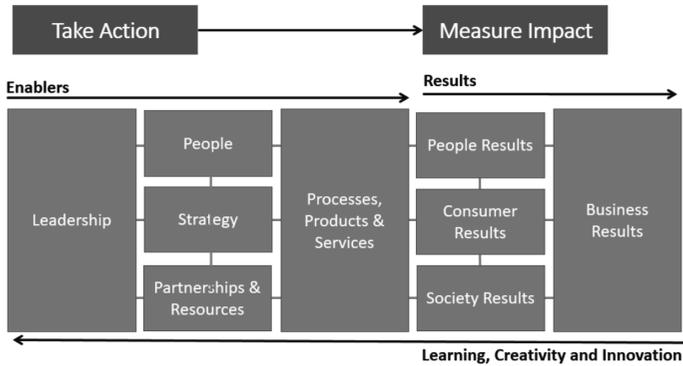


Figure 31: Initial EFQM model

Source: European Foundation for Quality Management / Oblasser and Riediger (2015:80)

This was updated in 2010 in order to match contemporary requirements:

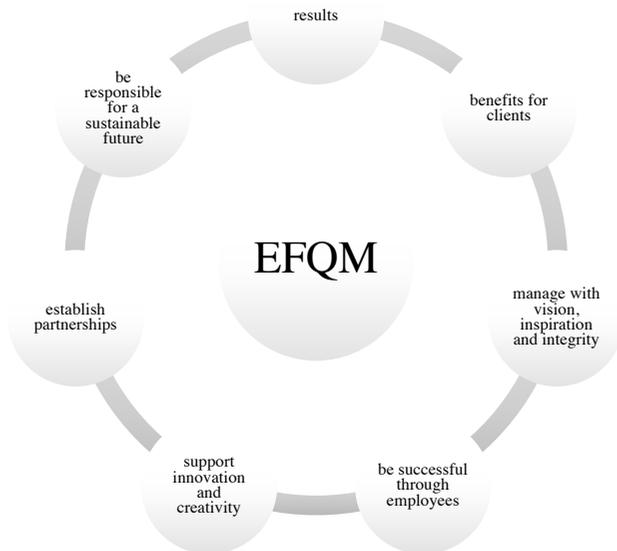


Figure 32: Current EFQM model

Source: European Foundation for Quality Management

In contrast to the initial model, the updated one depicts the mutual dependencies among criteria and expands the model with modern management criteria. In times of resource shortages, much shorter cycles of innovation, an expanding communication basis of societies via the internet, and the risk of new business models, resource management is utterly essential. This core principle should also be included in a modern management system for organising sustainable events.

According to Oblasser and Riediger (2015:81), the following criteria are essential for identifying the correct management system:

- If the long-term aim is an *EMAS* or *ISO 20121* certification, different systems are matching.
- If there are existing systems in use, compatibility must be ensured.
- Is a certification required? How and where should it be accepted? Matching target groups. National, European, international?
- Documentation needed?
- Should employees be integrated? Is creativity supported?
- Can all required process, structures and wishes of clients and employees be integrated?
- Open or closed system?
- Are methods of measurement predefined or flexible?

The systems differ greatly in the above-mentioned indicators. All open and closed management systems can help to enhance a company's performance with regard to sustainable events. These issues also link to the emergence of international and national guidelines, standards, norms, tools and management systems in a service market such as the meetings industry. "The principal focus of processes, monitoring and output found within the ubiquitous concept of quality management has evolved to a holistic consideration of management and implications upon output within a product or service" (Musgrave, 2011: 266). Gladwin *et al.* (1995) continues, arguing that these kind of management systems will shift from quantity to quality. Moreover, Hazlett *et al.* (2007) suggested parallels between the development of CSR and the development of quality management that can influence and guide organisational values and vision.

When analysing the various action fields in event management compared to their parallels in project management, the following definition can be derived: event management means "the systematic and target oriented planning of the presence of a group of persons under the application of instruments and methods of project management" (Sakschewski and Paul, 2017:83). In essence, the combination of approaches from quality and responsibility management as well as sustainable principles enables a development towards responsible management driven by business values and ethics and one which, according to Raj and Musgrave (2009:1):

"represents a holistic understanding of all core and support activities of planned events, raises an awareness of the impacts of these activities, a strategic intent to reduce impacts, to increase the effectiveness of actions taken and to create a culture that continuously measures and evaluates these changes."

More differences can be found in the communication and reporting methods of the different standards. *EMAS* requires an environmental report as well, whereas most others do not. Green Globe, for example, only requires organisations to achieve a predefined percentage of obligatory criteria in order to be certified. Neither ISO/DIN 14001 nor ISO/DIN 20121 require an environmental report. A listing in a national or international register is also not required.

According to Oblasser and Riediger (2015:89), event managers and meeting planners are often unsure where to begin organising a sustainable event. They use existing checklists from, for example, the GCB or BMU, but do not know how to choose the right ideas for their situation. This results in a refusal attitude driven by such arguments as the process is too time consuming, too expensive, or too detail-laden for an individual event, which might indeed be the case for some criteria and fields of action. If certification is required, management cannot reasonably argue that the process is "too expensive". If an open, flexible system is chosen, more active engagement is required in the initial implementation stage. This often leads to an unsustainably

organised meeting. In this case, a closed system might be the better choice. Here, the meeting planner can choose from an existing pool of criteria that fit the event as close as possible. Once a minimum percentage of criteria have been fulfilled, the event will be awarded a sustainability certification. However, the next event is required to fulfil even more criteria, which has the potential to produce an increasing greater percentage of sustainability over the years. This requires a core PCO as it is a long-term prospect. It also begs the question: How credible is this approach? Answers vary, but in the opinion of Oblasser and Riediger (2015:90), the current opinion of industry is that it is better to start with small steps than no steps at all.

Oblasser and Riediger (2015:91) note that a sustainability conflict is often the result. Here, the aims of an enterprise clash with the aims of the meeting and those of sustainability as a concept.

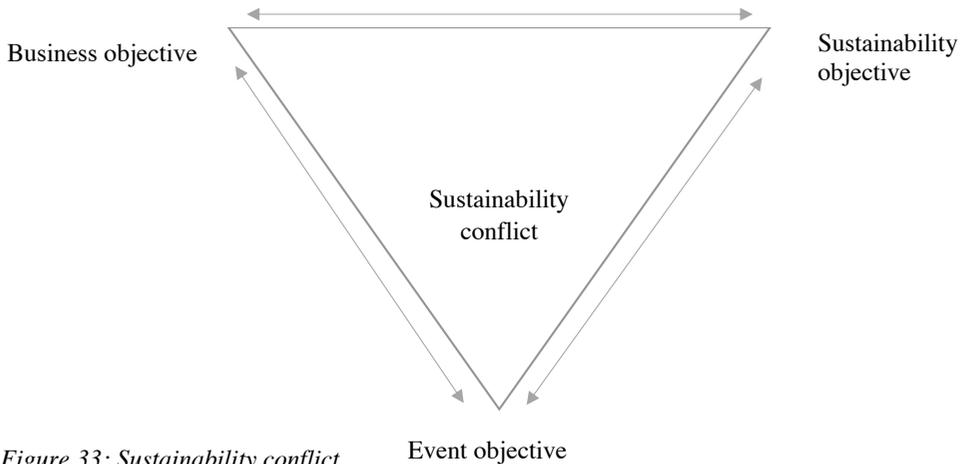


Figure 33: Sustainability conflict
Source: Oblasser and Riediger, 2015:91

If the goal for a meeting is, for example, to incentivise guests for their sustainability performance, this might clash with sustainability concerns, as an incentive generally requires a certain level of luxury and expense. The desire for sustainability may run counter to the goals of the meeting. Thus the process of choosing the right methods and criteria when organising a sustainable event is essential. If a sustainability strategy is implemented beforehand, potential conflict might be identified and clarified in advance. A strategy starts with a vision that must be communicated to all stakeholders involved.

The preceding section provided a critical discussion on existing management systems in the meetings industry and highlighted what is needed according to the current literature. According to Musgrave, “initiatives such as the Global Reporting Initiative and standards like PAS 2050 will be seen as entry-level management standards for many types of events” (Musgrave, 2009:17). Consequently, the following section will analyse current reporting schemes and pre-existing measurement models.

Based on the assumption that the original model of the *triple bottom line approach* is not flexible enough, Oblasser and Riediger (2015:33) developed the *three pillar approach* for sustainable event management.

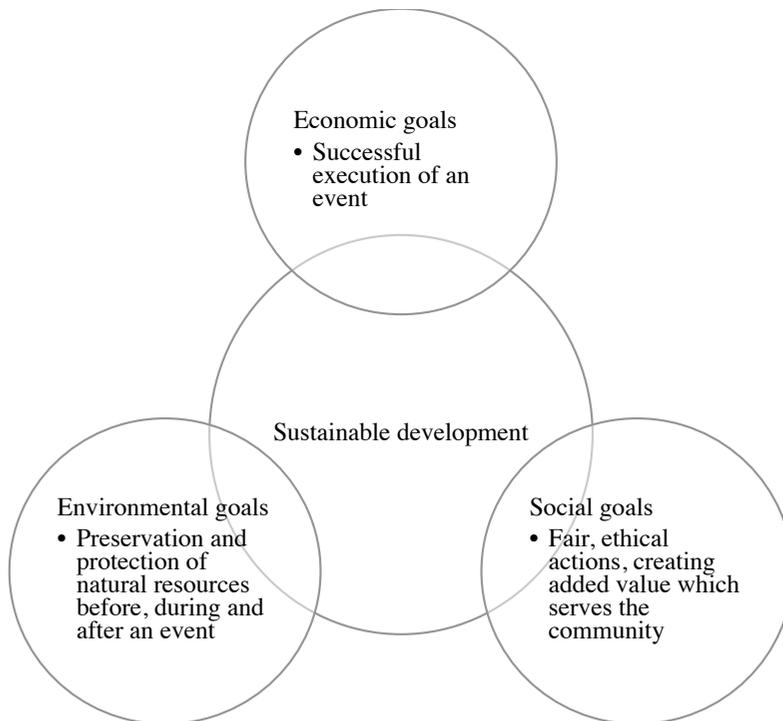


Figure 34: Sustainable development in event management
 Source: Oblasser and Riediger (2015:33)

This aims to cover all three aspects of sustainability according to their own definition. Here, economic sustainability means the successful organisation of an event, for example to generate profit or improve an image. Sustaining and maintaining natural resources for future generations before, during or after an event, for instance by choosing eco-friendly suppliers or products, reflects the environmental goals. Social goals and societal sustainability strives to produce added value for society: integration of local people into the organisation of events, fair and ethical treatment, and adherence to compliance rules (ibid).

The authors created a *portfolio matrix* with a coordinate system to graph the effectiveness of spheres of activity in connection with sustainability (x-axis) and the benefits for companies and associations in terms of sustainability (y-axis) (Oblasser and Riediger, 2015:103). It defines questions for each sphere of activity in relation to sustainable event management and, based on the position in the coordinate plane, the strategic planning process for the single spheres of activities is visualised. For further differentiation, the single activities are assessed and illustrated via growth of circles. A typical weighting is, for example, the influence of the single spheres of activity according to their environmental performance; mobility, for instance, is depicted as the sphere with the greatest influence (ibid). To allow for strategic classification and analysis of activities, the coordinate plane is overlaid with nine segments illustrating the mode of operation on a scale from low to high. The following lists shows the segmentation of the coordinate plane.

Chances	High	(A1) Low effectiveness, high chances	(B1) Medium effectiveness, high chances	(C1) High effectiveness, large chances
	Medium	(A2) Low effectiveness, medium chances	(B2) Medium effectiveness, medium chances	(C2) High effectiveness, medium chances
	Low	(A3) Low effectiveness, low chances	(B3) Medium effectiveness, low chances	(C3) High effectiveness, small chances
		Low	Medium	High
Efficiency sustainability				

Table 22: Segmentation of the coordinate plane

Source: Oblasser and Riediger, 2015:104

Portfolio analysis facilitates the strategical classification of activities. To this end, a strategy matrix with ten activities is created. Depending on their position within the coordinate system, the important activities for a specific event can be identified. This system, which is rooted in portfolio analysis, avoids the automatic plotting of foci (ibid). Every activity can be checked according to additional expenses, cost neutrality (or reduction), the chances for the company or association, and their efficiency in terms of sustainability. The first three fields in the left column indicate risks arising from low effectiveness such as greenwashing, for example. As both chances and effectiveness are considered too low in A3, this action field can be neglected completely. Segment B1, and to a lesser extent B2, can increase the efficiency and chances with regard to planned measures. Segment C1 should definitely be considered in any strategy, as well as C3 in terms of planned measures (ibid). Event history can be added to compare, contrast and connect, which might be useful for a wide range of events, from management seminars to regional conferences to workshop. The sustainability strategy as a whole consists of at least one strategy matrix visually depicting the weighting of the individual sustainability activities for a single event (or, in combination with a second strategy matrix, for a series of events). This makes abstract goals tangible.

In their book, Oblasser and Riediger (2015) also introduced perspective cards and a strategy map. The former involves the areas of economy, processes, stakeholders, learning and innovation, and social aspects (Oblasser and Riediger, 2015:112). The economic perspective ensures that the organisation of a sustainable event creates economic benefits in addition to more awareness. Another focus is stakeholder communication, an issue which will be investigated further in this research as well. The perspectives “processes” as well as “learning and innovation” support the continuous implementation of sustainability in the organisation and even a continuous improvement process. The perspective “social aspects” enables an expanded view, not only with regard to ecological activities, but also taking into consideration the *triple bottom line approach*; the latter also illustrates the dependencies of the goals which cannot be assessed singularly because of their influence on each other (Oblasser and Riediger, 2015:115).

The final step in constructing a management system for sustainable events involves developing and implementing concrete measurements. The goals are connected to the perspectives and indicators defined above, which are necessary for verifying whether goals have been achieved. According to Oblasser and Riediger (2015:116), each perspective should contain between one and four goals in order to be manageable and bound later measures. The total number of

potential measures should be limited to no more than 16 measures per perspective (or four measures per goal; see perspective cards in Oblasser and Riediger, 2015:118). An analysis of impacts in the form of a cascade ensures a connection between environment impact and management approach. Aims and measures of the economic perspective focus on cost reductions, increasing market value, enhancing or supporting the image and competitive advantages, for example (ibid). Planning is fundamental, facilitated, for example, by an action pyramid for the development of a sustainable event. While documentation and reporting are one-time processes for each event or meeting, both target and measure planning are a repeating process for events subject to ongoing assessment. Strategy and vision are one-time processes as well, though the former is formulated once per event and the latter for all events (Oblasser and Riediger, 2015:92).

The *SCENE model*, in contrast, was developed by Saeed-Khan and Clements (in Raj and Musgrave, 2009:142) and is a conceptual approach towards sustainable development based on structural representation. The goal here is a deeper understanding of the underlying dynamics of sustainable development. It identifies “three capital domains that contain a number of stocks that can then be described or broken down into components or characteristics in quantitative, qualitative, functional and spatial terms” (Saeed-Khan and Clements in Raj and Musgrave, 2009:142). Indicators to measure these stocks can be both quantitative and qualitative in nature, but “must be communicable to all stakeholders in a simple yet effective manner. In an events context this may be income generated by a local music event but may also be details such as who received the invoice (distribution), for what purpose (food and beverage) and the spatial or geographic limits (local suppliers within a five-mile radius of the event)” (ibid). Environmental aspects such as waste disposal and recycling may be measured in terms of quantity as tonnage, in terms of quality as type of waste and recycling process, in terms of what recycling provides as function, and in terms of geographic area affected or included as spatial considerations (ibid).

We saw in Figure 4 that the growth of an event might influence all three pillars differently, and positively or negatively. For instance, growth in one area (e.g. economic growth) may come at a price to another domain (e.g. environment), which illustrates the sustainability conflict described by Oblasser and Riediger (2015) in Figure 33. Equally, the “cost of protecting the environment may show a strengthening in the environmental domain but a weakening in the economic domain” (Saeed-Khan and Clements in Raj and Musgrave, 2009:13). Possible applications are descriptions, strategic controlling of sustainable actions, the evaluation of related issues, strategy planning, and a framework for quantitative modelling as well as an inherent communication tool. This is necessary to the fragmented, dynamic and complex events industry, which is flexible with regard to the supply chain (ibid). When it comes to indicator determination, Saeed-Khan and Clements (in Ray and Musgrave, 2009:143) underscore that influences on an indicator may be numerous and complex.

The *SCENE model* consists of the following stages:

- Stage one: feasibility and research
- Stage two: planning and coordination
- Stage three: event implementation
- Stage four: breakdown, evaluation and after-effects

The sustainable events management wheel from Raj and Musgrave themselves (2009:8) is a sustainable management concept for events that identifies both positive and negative event impacts. One major focus is on regional economic development, e.g. through additional corporate

orders, new employment opportunities, or event marketing for the benefit of the region; this is similar to the work of Köhler (2014) described above. Other areas include “organisation structure, design for duality, avoidance, engagement, no trace, legacy, longevity and transparency, incentivize, strategic management, education and location” (Raj and Musgrave, 2009:9).

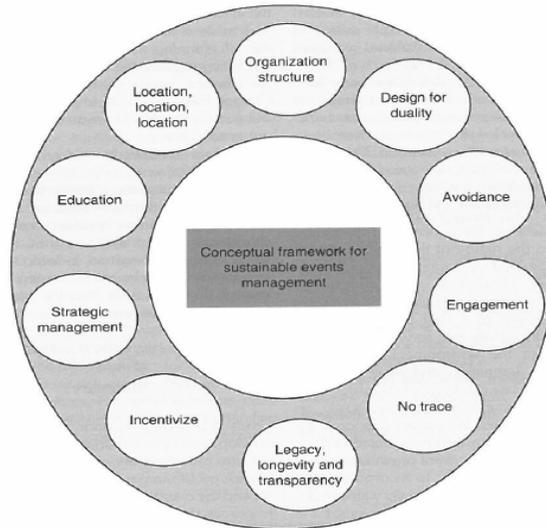


Figure 35: The sustainable events management wheel

Source Raj and Musgrave, 2009

The sustainable events management wheel is a guide for implementing sustainability and can help incorporate it into the event management process, but it involves no measurement tools (ibid). The authors deliberately separated their schema from others by focusing on the service industry, which certainly includes the events industry. Lamberti *et al.* (2009) discussed the possibilities of “assessing and monitoring the performance of a sustainable event” in an article published in 2009 and developed, based on the *Balanced Scorecard* from Kaplan and Norton (1992), the so-called *Sustainable Events Dashboard* (SED). Using this as inspiration, the Raj and Musgrave measure the financial dimension of an event, social performances (working conditions), ecological performance, innovation and internal performance (perspectives of the event) as well as stakeholder performance (attendees and exhibitors). Via relevant key indicators for specific measurement dimensions (i.e. success in fundraising, support for social project, amount of waste, satisfaction of delegates) they demonstrate just how complex of task it is to measure the sustainability of an event (Wall and Behr, 2010:11).

The preceding section presented several models and approaches to sustainable event management. The following section will focus on the transition from reporting to measurement.

3.6 From reporting to measurement

According to Holzbaur (2016), the measurement of sustainability is a crucial success factor when implementing sustainability in enterprises and markets. Measurement, in addition to the implementation and reporting schemas mentioned above, is a logical consequence as well, and there are certain tools available for this. An example would be the sustainability reporting guidelines for event organisers from the *Global Reporting Initiative* (GRI). As an independent

and international organisation, the GRI supports other organisations with measuring positive and negative impacts on issues critical to sustainability such as climate change and human rights. By reporting their activities, targets can be set and changes steered effectively. As a result, new opportunities can be detected, relations to stakeholders improved and the organisation's image and trustworthiness strengthened. Additionally, deficits can be unearthed and measures to rectify them initiated, which in turn might lead to environmental, economic and social advantages for everyone (GRI, 2020a).

With the help of GRI and its non-financial performance indicators, organisations are able to show, document and report their societal and environmental activities in order to establish a basis for comparison with more traditional types of mandatory company/financial reports emphasising financial performance indicators (Rieth, 2009). The demarcation between voluntary sustainability reports and mandatory reporting on sustainability-related issues can be neglected (Gabriel, 2015). Thus the GRI strives for a continuous process improvement for their guidelines in order to ensure consistent quality (Rieth, 2009). In order to ensure the viability of long-term assessment and detect changes, indicators should align with quality criteria such as clarity, comparativeness, objectivity, reliability and validity (Wall and Behr, 2010). Moreover, CSR should be fostered within organisations as well, as CSR engagement is considered crucial for sustainability-related performance reporting. This leads due to the standardised GRI guidelines and the related comparison to a growing competitiveness between organisations in terms of best possible CSR, sustainability performance, and image improvement (Rieth, 2009). One of the major targets is transparency, but as long as this is voluntary, comprehensive transparency might be difficult, as reports differ in their depth and detail (Burckhardt and Hamm, 2013).

The open-source guidelines are the latest version and based on the preceding versions (Reporting Guidelines, Sustainability Reporting Guidelines, GRI-G3, GRI-G3.1 and GRI-G4). They include all fundamental aspects from the GRI-G4 guidelines, but also have a more flexible structure, clearer demands and simpler language (GRI, 2020b). They are global standards for sustainable reporting and represent best practice examples, as they consist of modular standards which can be connected in order to create a coherent structure. They are essentially a set of indicators and criteria for reporting on the economic, environmental and social impacts of an organisation's activities and the resulting positive or negative contribution to sustainable development (GRI, 2020c).

The guidelines are to be used “by organizations for measuring and reporting on the economic, environmental, social, and governance dimensions of their activities, products, and services and set out reporting principles and performance indicators for economic, environmental, and social disclosures” (GRI, 2015; Hall, 2010:135). Additionally, the GRI supplement provides information on content and additional performance indicators, and covers the following action fields: economics, environment, labour practice and work, society, product responsibility, sourcing and legacy (GRI, 2015; Sakschewski and Paul, 2017). The complete event management process, from planning to implementation and evaluation, is taken into consideration and involves the following indicator groups (GRI, 2015b):

- Economic performance indicators: economic performance, market presence, indirect economic impacts
- Environmental performance indicators: material, energy, water, biodiversity, emissions, waste, products, services, transport
- Labour practice and work: work, share of work and management, health precautions, security precautions, training and workshops, gender equality, diversity, gender pay gap

- Human rights: investments and procurement, anti-discrimination, freedom of association, child labour, forced labour, security, rights of indigenous people
- Society: local communities, bribery, public order, competition, compliance, inclusion
- Product responsibility: health and security, labelling, marketing, customer data, food and beverage

This ensures documentation of the achieved sustainability goals and enables comparison with other events. This in turn ensures ongoing performance enhancement. The PDCA circle is considered to be connected to a holistic view of sustainability. The indicators and the structured definition of goals facilitate the easy preparation of a sustainability report. This includes a sustainability vision, the event fact sheet as well as the strategy itself. The individual goals, measures and indicators are explained as well. The GRI offers a holistic overview intended to help with publishing a sustainability report. It is an internationally accepted source for documentation, but every enterprise defines for themselves how deeply they wish to implement sustainability in their procedures (GRI, 2015b). The minimum requirements for a report are the descriptions of vision and strategy as well as the management approach. Moreover, the indicators in terms of economic, ecologic and social aspects of the organisation must be given as well.

3.7 Summary and conclusions of Chapter 3

We have learned that analysing and measuring sustainable event management can be done via several certification programmes and guidelines. By assessing an association's organisational structures, sustainability-related insights can be gained and improved upon.

With the introduced checklists, guidelines, standards, indicator systems, and industry-related norms, several examples of measurement systems and manuals on implementing sustainable event management have been shown. Despite general acceptance of sustainability issues, there are still certain perceptions and resistance partly rooted in the structure and the specialties of the industry itself, and partly due to market conditions. Given the self-organised, free-thinking, and well-experienced stakeholders in the events industry, certification systems are not always helpful due to the low level of documentation (Sakschewski and Paul, 2017:261). (Paul and Sakschewski and Paul, 2012:13). A rather limited documentation culture exists, which might be an additional hurdle.

The successful implementation of an event is in focus, and often must be achieved under time and budget constraints. Every measurement and assessment requires the periodic gathering of real data according to predefined parameters. Venues owned by communal authorities must document key data and events such as festivals, folk festivals or association events in special locations, recording specific indicators such as energy, water usage or waste amounts for necessary budget transparency. Other indicators such as participants' satisfaction or sustainable regional development are rarely documented systematically (Sakschewski and Paul, 2017:261).

Holistic indicator systems such as Green Globe are therefore very suitable for the meetings industry with its permanent venues, large number of permanent employees, and high grade, integrated information and communication systems. If complex indicator systems are adapted to the events industry as a whole, an organisation- or event-specific adaption is required. But this requires not only exceptional skills and knowledge, but also a wealth of experience in terms of practical suitability of each indicator; in other words, an experienced and skilled manager who is familiar with system adaption.

As the discussion above has shown, there are certain advantages, but also disadvantages to each approach. On the one hand, companies or associations can gain a wide range of valuable information via specific criteria about their sustainability performance and use this data for long-term benchmarking and optimisation. On the other hand, not all programmes offer the required flexibility for their individual priorities due to the standardised nature of the indicators and criteria. Moreover, there are still many barriers to implementing sustainable event management that must be overcome, for example a lack of know-how or fear of cost, both in manpower and finances. These fears can be addressed via several methods of motivation, as only through a change in attitude can an association or company be convinced to adjust their management strategies to include sustainability.

As Dwyer *et al.* summarise, the “net holistic output measures the value of the gain across the TBL (i.e. economy, sociocultural and environment) less the cost of enabling this extra output” (2005:71). While the field of event impact research is growing (Formica, 1998; Getz, 2000; Hede *et al.*, 2002; Sherwood, 2007; Getz, 2019), most researchers tend to apply a functional “silo-based approach to the evaluation of events, considering economic, sociocultural and environmental impacts separately rather than holistically” (Fredline *et al.*, 2005; Sherwood *et al.*). The literature review revealed that a key aspect of operationalisation is to clarify how the criteria are described in the form of indicators and how they are measured. It turns out that realistic goals and a follow-up evaluation afterwards are crucial to identifying whether targets have been achieved.

Most models discussed here are rooted in project management (Saeed-Khan and Clements in Raj and Musgrave *et al.*, 2009:141) and represent different approaches. However, all emphasise different issues in the planning process. The desired result is a more sustainable level of activity, but the way to achieve this varies. No model discussed here is entirely inclusive, but this aspect is crucial for the events industry due to the diverse stakeholders and impacts inherent to a highly dynamic industry with a complex supply chain. If these aspects are taken into consideration in all phases of the event management process, essential components for sustainable event management are already in place. This can lead to advantages such as an orientation along the added value chain (identification of competitors, image and costs, optimisation of resources as well as integration of communication targets), a project- and process orientation, a focus on social aspects, sustainable implementation of innovation processes, the opportunity to take chances and risks into consideration, adaptability for further development to *EMAS*, *ISO/DIN 14001* or *20121*, and, finally, the ability to report in accordance with *GRI G4* or *EMAS* (Oblasser and Riediger, 2015:131).

To conclude, we can say with confidence that the barriers discussed here lead to uncertainty among clients and customers (i.e. associations). By motivating them to strive for sustainability, success is achievable. Oblasser and Riediger provide several examples of this motivation can be sweetened, for example employee gratitude that their efforts are appreciated and the improved image of the association or company. Their attitude towards sustainable event management can be influenced by emotions, and quite effectively at that. Moreover, their tax burden might shrink as consumption of certain resources is throttled and minimised. But most importantly: they can also function as best practice examples for others. This in itself may have a positive influence on the willingness to change as well as the awareness of and consciousness towards sustainability in other organisations. This sustainability-positive attitude should be spread and communicated throughout all management levels so that it reaches all areas of the organisation. This is critical to authenticity in terms of both corporate image and external perception (Oblasser and Riediger, 2015).

4 Methodology

The preceding chapter was dedicated to a closer look at the industry focus of this research and how it relates to sustainability. Thus the first objectives have been achieved. Chapter 4 will introduce the research concept to explain how the subsequent objectives will be tackled.

4.1 Introduction to methodology

Determining the research questions, the aim and the objectives of this research will be illustrated in the context of proven methods, and the individual implementation steps of the primary and secondary data will be explained. The preparation, implementation and evaluation of the empirical data are shown in detail, leading to the results, which are the essence of the single studies.

The literature review in Chapters 2 and 3 represented a critical investigation of both literature and background information relevant to this research topic, while also establishing the relevance and credibility for conducting the primary research. The aim of Chapter 4 is to demonstrate which research methods were chosen in relation to the issues identified in the literature review and to explain the research methods applied for data collection purposes in order to achieve Objectives 2 and 3 of this study. It will explain the benefits of the chosen methods and discuss possible limitations and biases affecting the primary research.

Relevant quality criteria for scientific research, in particular transparency of the research study and confirmability of each research step, were achieved. The development or filtering of data, theories, intermediate steps and results is documented as well as the methods used. Omissions are justified as well (Boger, Littig and Menz, 2014). Following the scientific method, the insights gleaned from the literature review are used as a theoretical framework for the employed empirical methods of expert interviews, Delphi technique and surveys.

4.2 Object of research

As this dissertation focuses on the holistic implementation and measurement of sustainable events management, in other words the transformation of “traditional” events into sustainable and responsible ones, a behavioural change of all event stakeholders, including strategic and operative management as well as delegates, appears to be necessary. As shown in Chapter 2, this focus is necessary in order to meet the innovation pressure and the sustainable, mostly environmental focus on the market, which is required by changing customer requirements. The study *The Value of CSR in the Meetings Industry* (2011) shows that “consumers are driving companies to environmental and social responsibility”, i.e. forcing them to engage with the topic.

To gather theoretical and empirical results on the necessity of sustainability in the meetings and events industry, the empirical study will be conducted by meeting with relevant experts from strategic and operative management, from associations themselves, and from among participants at an association event. The events’ success is dependent on participant satisfaction (economic sustainability). For the implementation of outwardly visible measures towards environmental sustainability (e.g. foregoing meat in catering, as beef production, for example, involves significant CO₂ emissions; or introducing or increasing entrance fees in order to offset CO₂ emissions, as delegates’ arrival is the main driver of event-related CO₂), delegates’ acceptance

of measures is crucial in order to create a behavioural change and not produce a negative effect on economic sustainability. Target-specific communication is essential here.

Therefore, the empirical study will – taking into consideration the predicted factors discussed in Chapter 2 – focus on the following aims:

- Sustainable relevant behaviour shall be identified by individual approaches, behaviours, values and the knowledge of interviewed event participants.
- The individual strength of sustainability consciousness shall be identified.
- Using this data, the readiness for more sustainable behaviour (connected here to sustainable events) shall be determined.
- The effectiveness of cooperating attitudes and behaviour-oriented forms of interventions such as actions or incentives for actions and perceived consequences will be explored (Figure 23).

Moreover, the status quo of sustainability implementation in the meetings and events industry will be determined, including potential drivers and obstacles. This will support the discussion from the literature review in the second chapter.

The results will support the formulation of actionable recommendations:

- The status quo of sustainable event management in the association meetings and events industry in Germany.
- Target group-specific planning of measures for events in different fields of operation within the three sustainability pillars in order to create the greatest acceptance possible and to minimize the behavioural gap.
- The identification of barriers and drivers to implementing sustainable event management in associations.
- The creation of effective, target group-specific persuasive communication.

This, finally, should lead to the development of a model for sustainable association event performance assessment.

4.3 Research philosophy

Positivism and phenomenology are known as the two main techniques for conducting primary research (Phillimore and Goodson, 2004; Finn *et al.*, 2000). Positivism is the dominant research approach in the natural sciences (Clark *et al.*, 2002; Jennings, 2001; Saunders *et al.*, 2016; Getz, 2007). It seeks empirical facts and involves the development of a theory that is then subjected to a rigorous test (Phillimore and Goodson, 2004; Saunders *et al.*, 2016; Jennings, 2001). By using a deductive approach, a general theory or hypothesis is developed first and then tested through a specific research strategy to see if the assumption actually aligns with reality (Veal, 1997; Jennings, 2001; Getz, 2007). The benefits of this paradigm are its clear theoretical focus and easily comparable data.

Here, an inductive approach was chosen, as this is said to “fit best to an approach starting with data collection leading to analysis” (Getz, 2007:360). This is also supported by Saunders *et al.*, (2009:61), who define it as a “research approach which involves the development of a theory as a result of the observation of empirical data.”

According to Neumann (2003:71), the limitation of positivism as an approach is that “it reduces people to numbers and that its concerns with abstract laws or formulas are not relevant to the actual lives of real people.” Its greatest weakness is understanding social processes (Getz, 2007; Hussey and Hussey, 1997). On the other hand, phenomenology aims “to capture the rich complexity of social situations” (Goulding, 2005:22; Clark *et al.*, 2003:69) and is concerned with the context in which meetings take place. According to Jennings (2001) as well as Jonker and Pennink (2010), the main difference compared to the positivist approach is that a phenomenological approach asserts there are multiple explanations or realities to explain a phenomenon rather than one causal relationship or one theory.

Phenomenology is often associated with an inductive approach in which one begins with data collection and develops theories or abstract ideas as a result of data analysis (Jonker and Pennink, 2010; Veal, 1997). The phenomenological approach is generally seen as less scientific (Clark *et al.*, 2003; Jennings, 2001; Saunders *et al.*, 2016). Furthermore, the researcher should be aware that when using this paradigm the people studied will not be representative of the wider population, meaning findings of the study are specific to those who participated (Goulding, 2005; Jennings, 2001).

As there is rarely one research philosophy applied to a project (Saunders *et al.* 2009), this dissertation also has an interpretive character. According to Decrop (2006:47 in Getz 2007:361), an interpretive approach “believes in multiple, socially constructed realities” and is said to come from the traditional intellectual approach of phenomenology mentioned above. Saunders *et al.* (2009:115) add that the “social world of business and management is seen far too complex to lend itself to theorising by definite laws in the same way as physical sciences” and Quinlan (2011:99) states that “all knowledge is a matter of interpretation.” This belief is plausible, as it can be argued that rich insights into our complex world are lost if such complexity is reduced entirely to a series of law-like generalisations (Saunders *et al.*, 2016). Moreover, the very nature of phenomenological research is said to be subjective. The use of this paradigm necessarily requires involvement in real world circumstances as well as the involvement of the researchers themselves (Horn, 2009). However, this subjectivity may have limitations on the findings of the analysis, which will be discussed later.

The main aim of the primary research was to investigate the status quo of the meetings and events industry, which is reflected in the first two objectives: “to examine the status quo of the meetings industry by reviewing relevant literature on this specific market” and “to identify possible objectives and their implications affecting the industry.” To achieve this, the primary research conducted in this study applied a phenomenological and interpretive approach to better understand the details of the situation and the tasks ahead.

4.4 Research approach

Research can have elements which are based on a non-empirical approach, an empirical approach, or a combination of both. As mentioned above, an empirical approach to research can have either a deductive or an inductive character. Deduction emphasises scientific principles by moving from theory to (often quantitative) data (Getz, 2007; Bryman and Bell, 2003; Veal, 1997; Jennings, 2001). In contrast, an inductive approach emphasises a close understanding of the research context by collecting qualitative data (Horn, 2009; Veal, 1997). Creswell (2003:89) suggest that a topic on which a “wealth of literature exists often is connected to a more deductive approach as the background enables the author to define a theoretical framework and hypothesis.” In contrast, an inductive approach is characterised with research into a topic that is

relatively new with little available literature, thus it may be appropriate to generate data and reflect on possible theoretical themes the data are suggesting (Getz, 2007; Easterby-Smith *et al.*, 2002).

An inductive approach was applied in this research paper due to the fact that there is limited data and theories available. Most importantly, qualitative data was collected during the primary research to enable more complex insight into the topic (Saunders *et al.*, 2016; Getz, 2007).

In order to meet objective one of this study, secondary research was also undertaken. Secondary data is defined as “existing data, where the researcher is the secondary user” (Chisnall, 2001:45; Veal, 1997:33). All types of secondary data, ranging from documentary data, multiple source data and surveys (Horn, 2009; Jennings, 2001; Saunders *et al.*, 2016) might be used. This mixture of data sources, including academic journals, books, studies from tourism and event organisations and online publications, will enable a critical investigation of the theory written related to the topic of this research study. In order to acquire an overview of the status quo regarding research projects in the field and the methodological foundations of association events and sustainability, a literature review was conducted. Here, existing literature was re-evaluated through the lens of the research question of this dissertation (Saunders *et al.*, 2016). The analysis initially served to re-shape the topic thanks, for example, to the identification of research gaps in the area of sustainable association events. In a broader sense, the method helped to structure and display the current level of knowledge and research as well to construct the theoretical framework in which further data was to be collected. After the analysis of the existing secondary data and articles, fresh insights could be synthesised with the help of the mixed methods approach.

Primary data are new data and information specifically collected in the current research project, which means that the researcher is the primary user (Veal, 1997; Chisnall, 2001). To achieve Objectives 2 and 3 of this study, the collection of primary data was deemed necessary.

4.5 Research strategy

The “research strategy determines the way by which the research question can be answered” (Saunders *et al.*, 2016:914). Common strategies used in “social researches are experiment, survey, case study, grounded theory, ethnography, and action research” (Veal, 1997:74).

Grounded research does not start with a problem, theory or hypothesis (Getz, 2007), but with an interest in the core phenomenon. This approach rests on the premise that researchers should not carry pre-conceived notions into their projects, but construct research in such a way that knowledge and theories emerge from data and structured analysis. This is a widespread method of analysis in the qualitative social research field and offers a sampling of single techniques and guidelines for data processing and data analysis as well as theory-building. Strauss and Glaser (1967) consider the research process an ongoing work marked by “situational circumstances of the concrete research project” (Kromrey and Strübing, 200:14), which emphasises the timely parallelism and mutual functional dependency of the processes on theory building (Strauss 1990:44ff.)

In their ground work on qualitative social research, Strauss and Corbin define that “phenomena shall be explained by a theoretical frame, which grows during the research process” (Strauss and Corbin, 1996:32). The raw empirical data are gradually converted into a theory, which will be developed, proofed and adjusted during the process. Here, the theoretical building of

concepts is in the focus, which means that not only will topics be described, but patterns identified as well (Strauss and Corbin, 1996:6).

In the beginning, it seemed that this research strategy would match this study, but it turned out that the strategy determined to be applicable here is actually the so-called action research strategy (Saunders *et al.*, 2016:147). The underlying reasons for this decision will be explained in the following. The action research strategy has been interpreted by researchers in a variety of ways, but there are common themes to be found in the literature. The first focuses on and emphasises the purpose of the research (Saunders *et al.* 2009; Getz, 2007): research *in* action rather than research *about* action, which is supported by Quinlan (2011), who explains that this approach is used to bring about or identify change. The second relates to the involvement of practitioners in the research. Eden and Huxham (1996:75) argue that the findings of action research result from “involvement with members of an organisation over a matter which is of genuine concern to them.”

Due to the fact that the researcher works in the meetings and events industry, the author might adopt the role of the practitioner-researcher (Saunders *et al.*, 2016). Due to this, the hurdle of getting access to data and information might be reduced. Another advantage is insider knowledge of the industry and market (Saunders *et al.*, 2016), but one must strive to avoid subjectivity, as this could prevent the involved author from exploring issues that would be enriching to both knowledge and research (Saunders *et al.*, 2016). Subjectivism as a limitation will be discussed in greater depth in Chapter 7.3. As this research project may bridge the relevancy gap between practitioners and researchers, the research strategy must be able to provide context specific recommendations (Saunders *et al.*, 2016), conclusions the organisations can use, and data that can be potentially generalised to a wider range of industry.

Veal (1997) as well as Hussey and Hussey (1997) suggest that there are four types of research. The first one they describe, descriptive research, collects evidence to enable the researcher to determine the “who, what and where”, whereas the second one, explanatory research, seeks to explain “how” or “why” things are as they are. Evaluative research attempts to evaluate policies and programmes, while analytical research interprets numbers and figures. Jennings (2001) as well as Hussey and Hussey (1997) add an additional category, exploratory research, which explores single or multiple scenarios of a phenomenon “to discover uniqueness or characteristics (...), the “what” is determined.”

Following these definitions, this dissertation has an exploratory character, as it seeks to identify the “what” with regard to future risks and opportunities for the meetings industry, despite the notion that “semi-structured interviews are more frequently used in explanatory research, less frequent in exploratory research” (Saunders *et al.*, 2016:323). This exploratory character is also necessitated by the lack of existing research for meetings events. Therefore, qualitative analysis was selected as the most appropriate method for gathering data that had the required depth. Additionally, qualitative research methods allow flexibility, which permits emerging data to be iteratively incorporated into the analysis (O’Brien, 2006 in Mair and Jago, 2009:85).

4.6 Data collection methods

In order to meet objective one of this study, secondary research must be undertaken. As a reminder, objective one is “to discuss terms and definitions of sustainability and corporate social responsibility in the context of event management in the meetings industry.” Building on the previous sections, this objective requires additional sharpening and a critical discussion.

The second objective reads “to examine the status quo of acceptance, implementation and implications of sustainable event management in the meetings industry.” Here, the research will explore how meeting managers and the industry understand and define sustainable meetings management. This will be compared to the literature reviewed for objective one. Moreover, primary research should reveal here if and how sustainable meetings management is used in practice. The third objective will advance the discussion and seek key indicators and impacts occurring in the events industry. Are they measured and evaluated? If yes, how? These findings will put in relation to the *balanced scorecard* which will be adapted and refined to a *sustainability balanced scorecard* for the meetings industry based on the research.

The following section describes the initial ideas surrounding the data collection methods, but it must be emphasised that the literature review is not finished yet, which means methods might change or need adaption during the upcoming period.

Qualitative and quantitative primary data can be collected through observation, questionnaires, documentary analysis or interviews (Chisnall, 2001; Saunders *et al.*, 2016; Getz, 2007). The first two approaches are regarded as unsuitable, as they are “not made for obtaining descriptions and interpretations of others” (Easterby-Smith *et al.*, 2002:86). Interviews as an “interactive method of data collection” (Lee and Lings, 2009:348) are regarded as appropriate when the research subjects are relatively few in number, making a questionnaire-based, quantitative style of research inappropriate (Crouch and Housden, 2003; Veal, 1997). Moreover, Gillham (2000) adds that an interview can prove effective when the research aims mainly to acquire new insight and understanding; small numbers of people involved and efforts are exploratory in nature (Horn *et al.*, 2009), which might apply to this study.

Another possible approach for this research might be focus groups, where the interview is relatively unstructured and the researcher must guide the discussion in order to encourage involvement by all members of the group (Horn, 2009; Crouch and Housden, 2003; Saunders *et al.*, 2016). This approach was not chosen due to bias, which can appear when the participants are instructed, for example by their organisation, to join the discussion. Additional bias could creep in “through the opinions expressed during the interview by the different participants” (Clark *et al.*, 2002:137). Another difficulty was posed by scheduling constraints of the panel members.

In order to get a more valid output from the expert interviews, the Delphi technique will be applied in this study, as previously mentioned. This is a widely-used method for gathering data from respondents within their domain of expertise and fits perfectly with this project as it attempts to address “what could/should be” (Miller, 2006). Here, participants have the opportunity to explain their opinions in more detail. The model is based on the rationale that “two heads are better than one, or ...n heads are better than one” (Daley, 1972:15).

Moutinho *et al.* (2011) state that the Delphi method of forecasting has attracted considerable attention in tourism literature since the late 1970s. It strives to achieve expert insight into the future by surveying a group of experts in the field. The method is based on the assumption that a forecast that can be agreed upon by a majority of those surveyed will possess a greater degree of credibility in comparison to expert interviews or the opinion of a single expert. Of course, it follows from this that the “composition of the surveyed group will have a considerable impact on the result of the survey” (Pillkahn, 2008:1095). Delphi studies can be carried out in groups or anonymously in order to minimise conforming influences; thus, rather than meeting physically as a group to debate the various issues under consideration, the experts are instead kept apart so that their views are not affected by dominant personalities, social pressure, etc. Because expert panels are usually recruited for Delphi, it is also a way to generate new knowledge, or at

least “to synthesize the knowledge and opinions from many experts” (Pillkahn, 2008:195). According to Delbecq, van de Ven and Gustafson (1975), the Delphi model is used “to expose underlying assumptions or information leading to different judgements”, for example, which fits with this thesis. In the present study, the views of the experts were collected via interviews as described above, evaluated, and then put to participants again to apply the Delphi method.

Quantitative research verifies constructed hypotheses based on repeatable test procedures with pre-determined, repeatable conditions. Compiled evidence is quantifiable (Raithel, 2008). Secondary data from quantitative research are generally quickly and easily available as well as cost-efficient. The quality (which is not always verifiable), the age of the research, and difficulties with specific research objectives can create issues. Secondary data can be distilled from statistics as well (Saunders *et al.*, 2016). Quantitative data collection is often associated with positivism. This approach is based on a collection of data in the form of numbers, or data that can be turned into numbers (Getz, 2007). The results will then be analysed by diagrams and statistics; Bryman and Bell (2003) add that the evaluation process entails the search for indicators. In contrast, qualitative research is empirical, systematic, flexible, and deals with meanings, often in the scope of a natural, authentic field investigation. It aims to find theories and generate hypotheses or models (Mayring, 2002). Its specificity is also reflected in methods such as the Grounded Theory that used qualitative content analysis (Kuckartz, 2014). The research question of this study leans towards a qualitative research approach. The aim is to carve out of a strategy to open questions.

Both methodological approaches can highlight a research objective in complementary ways as well. In addition to the secondary data distilled from the literature, primary data are obtained here from the qualitative methods of expert interviews, the Delphi technique, as well as the survey among event participants (Schnell, Hill and Esser, 2011). The process of the methods is similar in many respects and can therefore be used to integrate research approaches (Mayring, 2001). The basic requirement for mixed-method research is the assumption that the employed methods are compatible, complement each other, and deliver different perspectives. Method triangulation, the most common form of mixed-method research, analyses a phenomena with different qualitative and quantitative methods. Triangulation refers to the use of one method to verify or supplement the results of another method. In other words, it is essentially the use of different data collection techniques within one study in order to ensure that the data are actually telling you what you think they are telling you (Saunders *et al.*, 2016:146).

Broader insights will be found through the different perspectives (Flick, 2011), the results are more comprehensive, and holistic insight on the research objective can be achieved (Lauth, Pickel and Pickel, 2015). Nowadays, complex, multi-faceted questions require research designs which can deliver different perceptions. A pragmatic approach meets the requirements of application-oriented research, here the development of a performance dashboard is also settled (Kuckartz, 2014).

The expected positive impacts using different methods in this study are the following:

- A better understanding of the analysed problem of explorative character through the context of the results of both the qualitative research and the literature review
- The consideration of different perspectives, especially of the group’s experts and delegates, in order to gain more complex and thorough insights
- A broader spectrum of answerable aspects of the research question by deeper details
- The use of results of the literature analysis for further methods, e.g. the structure of interviews and the categorisation of questions

Implementation	Priority	Integration	Theoretical perspective
No order – simultaneously Sequential: qualitative first Sequential: quantitative first	equivalent Qualitative Quantitative	During data collection During data analysis During data interpretation At several moments	Explicitly Implicitly

Table 23: Crucial dimensions of a mixed method design

Source: Kuckartz, 2014:66

According to Tashakkori and Teddlie (2003), the mixed methods approach allows the use of different methods during all phases of the study (problem identification, data collection, data analysis, data interpretation) successively or simultaneously, including data testing on the basis of another method.

However, as the opportunity arose to conduct a survey during a live association event, this chance was taken and resulted in 763 completed surveys, which will be detailed in the next paragraph. The use of these mixed methods and the adding of this survey to the research approach provided new insights on the topic of sustainable event management and therefore to the overall aim of the thesis. The result of this project will be an applicable model for implementing, measuring and optimising sustainable events, in particular for association events. Its structure is derived from a theoretical framework and the answers to the research questions, while its aims and objectives determine further content, e.g. indicators. Furthermore, it provides useful indications for how to achieve research objectives for different research questions.

Another approach of data collection is a qualitative one, which is rooted in phenomenology and interpretivism. It is characterised by the collection of data in the form of words or pictures (Hussey *et al.*, 1997; Saunders *et al.*, 2016; Jennings, 2001). Key distinctions between the two approaches are illustrated in Table 24.

	Quantitative approach	Qualitative approach
Connections between data and theory	Deduction (measurement)	Induction (understanding of meanings)
Connection to research process	Objectivity Reliability is key Value free Focus on variables Independent of context	Subjectivity Authenticity is key Values are present and explicit Focus on interactive processes Situational constrained
Inference conclusions	Generalisation Statistical analysis	Context specific Thematic analysis
Research process	Testing of pre-defined hypotheses High number of cases Research is detached	Open research process Few cases Researcher is involved
Insight interest	Generalisation of the results for the application therefore developed approaches in the research process	Argue and justify generalisation of results
Methods	e.g. test, observation, experiment	e.g. interview, group discussion, observation

Table 24: Comparison between quantitative and qualitative approaches

Source: Hussey *et al.*, 1997; Saunders *et al.*, 2016; Jennings, 2001

Research serves the gain of new knowledge through empirical, scientific methods. Qualitative and quantitative research methods differ in aim, process and quality criteria; both are rooted in different scientific traditions (Kuckartz, 2014). Qualitative and quantitative primary data can be collected through observation, questionnaires, documentary analysis or interviews (Chisnall,

2001; Saunders *et al.*, 2016; Getz, 2007). The first two approaches were regarded as unsuitable, as they are “not made for obtaining descriptions and interpretations of others” (Easterby-Smith *et al.*, 2002:86).

4.6.1 Interviews - theoretical approach

Interviews as an “interactive method of data collection” (Lee and Lings, 2009:348) are considered appropriate when the research subjects are relatively few in number such that a questionnaire-based quantitative style of research would be inappropriate (Crouch and Housden, 2003; Veal, 1997).

The researcher considered the possibility of telephone interviews due to schedule and travel constraints of both the interviewees and the interviewer. In addition, Cooper and Schindler (2011:259) point out that one of the “advantages of telephone interviews is the moderate cost.” Some interviewees had very tight schedules and preferred a telephone interview instead of a personal meeting. Due to the fact that not all of the interviewees were known personally prior and the researcher regarded face-to-face interaction as important, telephone interviews were undertaken via Skype, an online video conferencing software. This approach ensured a visual element to the interview and also enabled the use of the integrated Dictaphone/video application called Skype call recorder.

The interview can be structured, meaning the researcher makes use of questionnaires based on a predetermined, standardised set of questions (Bryman and Bell, 2003; Saunders *et al.*, 2016; Horn, 2009), but it can be unstructured as well, when no predetermined list of questions to work through is prepared beforehand and the phrasing and sequencing of questions varies from interview to interview (Bryman and Bell, 2003; Horn *et al.*, 2009).

Expert interviews are an oral form of questioning in which the interviewee is considered an expert in the field (Gläser and Laudel, 2010:39). The interview is classified by the grade of standardisation, which in turn determines the autonomy of the interviewer when asking questions (Brunner, Knitel and Resinger, 2011:75). Here, the semi-structured form has been chosen (Bortz and Doering, 2006:239), meaning that a catalogue of questions was developed and used as a guideline during the interview. This serves as a binding thematic map (*ibid*).

The type of interview used in this dissertation is the semi-structured interview, which consists of a mixture of closed-ended and open-ended questions (Jonker and Pennink, 2010; Crouch and Housden, 2003; Gillham, 2000). An open-ended question attracts a more detailed response and Chisnall (2001:139) considers them “interesting, due to the spontaneity and individual flavour of the replies.” Jonker and Pennink (2011:11) support this notion, but call attention to the fact that an “open question can be considered as broad and vague” and the interviewer must be careful not to give the interviewee the feeling of doing all the work. Nevertheless, the author decided to have an open question regarding key business trends in order to get valuable insights and different perspectives without bias and / or influence through predefined answer options.

In contrast, closed-ended questions elicit responses which are strictly limited. The author regarded this as the most appropriate way, due to the flexibility to adjust questions to the flow of the conversation. The main advantages and disadvantages of semi-structured interviews are shown in Table 25.

Advantages	Disadvantages
Combines the flexibility of an unstructured interview with comparability of key questions.	Bias may increase as interviewer selects probing questions and may inhibit comparability of responses.
Semi-structured interviews provide inexperienced researchers with some structure while also allowing them to develop their own approach to interviewing.	The interviewer may react to responses from the interviewee rather than structuring the interview themselves.
May allow comparability across interviews, as the same questions are asked for each respondent.	Interviews can generate a large amount of data extraneous to the topic, and it may be problematic to generate comparable themes.
The technique has high validity, as interviewers can ensure that questions are understood by the interviewees by adapting the wording, or probe to elicit more in-depth responses.	Replication is impossible since the social interaction between the interviewer and the interviewee is a snapshot view of interaction, influenced by the type of day, the setting of the interview and the social circumstances.
The questions are not objectively predetermined and presented, so the interviewer is able to ask for further clarification and detail and pursue these issues without negatively affecting the quality of the data collected.	-
Queries can be clarified, which is generally not the case when an interviewer is operating from an objective epistemological perspective, as such explanations are considered to add researcher bias to the data collection process.	-

Table 25: Advantages and disadvantages of semi-structured interviews

Based on Jonker and Pennink, 2010: 77; Finn *et al.*, 2000:75; Jordan and Gibbson, as cited in Phillimore and Goodson, 2004:222; Jennings, 2001:167; Horn, 2009:195

For this dissertation, the researcher used semi-structured questions, as they best suit the qualitative and exploratory nature of this research study, and because of the clear pre-determined focus.

Another possible approach for this research would have been focus groups, where the interview is relatively unstructured and the researcher must manage the discussion in order to encourage involvement by all members of the group (Horn, 2009; Crouch and Housden, 2003; Saunders *et al.*, 2016). This approach was not chosen due to bias, which can appear when the participants are instructed, for example from their organisation, to join the discussion. More bias could arise “through the opinions expressed during the interview by the different participants” (Clark *et al.*, 2002:137). Another difficulty was scheduling constraints of the panel members, as mentioned previously.

In this project, primary data was generated by a qualitative sampling in form of expert interviews. Saunders *et al.* (2009) state that questioning is the most common form in empirical social research. The method of qualitative expert interviews was chosen due to the fact that the research questions, not a hypothesis, form the basis of this thesis, and will provide insight into the status quo of sustainable events management in Germany. Beyond that, the expert interviews will help to detect knowledge and insight in order to answer the research questions, aims and objectives, and support the theory portion of the dissertation. The results will help to form recommendations for associations on how to implement, communicate, measure and optimise their events in terms of sustainability. Hussy, Schreier and Echterhoff (2013:20) describe qualitative methods as follows: “[they] sense understanding, interpretative scientific behaviour attitude by the elevation and sampling of social relevant data.” This is accomplished here with the help of expert interviews.

The insights based on the theoretical background and the literature review in the first two chapters of the dissertation were grouped into relevant knowledge for further research purposes. However, this theoretical background needed structure in order to be useful for the expert interviews and the Delphi round (Gläser and Laudel, 2009). With the help of the qualitative research methods, primary data showing the perspectives of experts and the behaviour of the target group could be generated. The literature shows that neither perspective has been researched or thoroughly combined yet. The answers to the research questions distilled from the literature review served to structure the interview questions and the evaluation of the expert interviews (Mayring, 2000) as well as the criteria for the Delphi technique and its evaluation. Questionnaires can be differentiated into written, oral, personal, online surveys or those taking place on the phone (Schnell, Hill und Esser, 2011). Here, the oral survey in form of a semi-structured expert interview was chosen, in addition to written questionnaires which were completed by event delegates (ibid). Despite the necessary time investment (Saunders *et al.*, 2016), this data collection method has been regarded by the author as matching due to the character of the results, impartial and without presupposition, which is useful for a holistic research result (Schnell, Hill und Esser, 2011).

Further insights were expected from the interviews with experts from the meetings and events industry, in particular insights into Objectives 1-4, which are directly connected to the experiences of the interviewees. The steps here were sampling, preparation of the semi-structured interview, pre-testing, execution of the interviews and analysis of the data after Mayring (2000). Among the various classifications – explorative, systematising or theory-generating interviews – the first one matches most closely to this work. The experts' expertise can be collected most comprehensively with this approach. Both experiences and process knowledge can be collected in an analytic form. Experts know this in a reflexive way, meaning it does not have to be explicitly encoded. The questions could be clearer and more differentiated as compared to the interrogation of interpretation knowledge. Here, the ideal interpretation method, qualitative content analysis according to Mayring, was applied (Boger, Littig und Menz, 2014).

As stated above, a semi-structured questionnaire was developed for the expert interview (Schnell, Hill und Esser, 2011), which helped to structure the conversation. This consists of main questions, sub-questions and knowledge questions. Not all of them are direct translations of the research questions, but should inspire the experts to show their knowledge and experiences in a detailed way.

The semi-structured approach allowed individual courses during the conversation, but through the pre-structured and pre-formulated questions and topics, developed from the research questions, transparency and comparability of the interviews was ensured (Schnell, Hill und Esser, 2011).

The open questions presume an understanding of the research area; closed-ended questions (compare Appendix A6, Q29 ff.) require answer possibilities. When formulating the questions, not only their function in connection to the form of insights such as facts and assessment was taken into consideration, but also their impact on the flow of the conversation (Scholl, 2015). A general order of questions was followed as well (Boger, Littig und Menz, 2014; Scholl, 2015):

- Easy to answer, non-confrontational questions at the beginning (ice breakers)
- As long as attention is high, more complex or sensitive questions
- Preceding questions should not influence the following answers
- Easy knowledge questions in closed form with answer options

- Opportunity for individual input at the end
- Opportunity to ask questions during the entire interview

Using semi-structured expert interviews and the Delphi method, the study was able to establish principal trends and insights on sustainable event management, discuss the impacts, and highlight similarities and differences to the findings from the literature review. Quantitative field research would not lead to adequate and aspired-to results, as the number of interviewees would not be high enough to be relevant.

Gläser and Laudel (2010:42) explain that while these guidelines provide the topics, the actual formulation of the questions and their order may deviate. Moreover, interposed questions are possible, leading to a more natural interview process (ibid). The guided interview helps to “compare perspectives of different persons or groups onto one topic” according to Hussy, Schreyer and Echterhoff (2013:227). The aim of this form of interview is to find an answer to the research questions based on an expert’s expertise, experience and knowledge. The complete questionnaire design can be found in German and English in Appendices A5 and A6. It begins with defining categories, which helps to structure the interview. This is helpful for clarity purposes as well as for comparison of the interviews, even if questions were re-ordered (Bortz and Doering, 2006:314). Gläser and Laudel underline the importance of carefully formulating questions, as the interviewee relies solely on the questions as an “anchor” of sorts in order to reveal their knowledge.

Interviews consisted of 24 questions (personal data questions not included) deemed important to answering the research question, and eight knowledge questions. The questions are structured into multiple categories (general questions not included), which are (in their order of appearance): general terminology, insights and experiences, assessment of chances and potential risks as well as motivation and barriers to introduce sustainable event management, measures and measurement, identification of indicators, and the opportunity to ask their own questions. Open questions were chosen so as not to limit the experts in their answers and to give them room to make their own decision regarding the content of their answers (Gläser and Laudel, 2010:131).

4.6.2 Delphi - theoretical approach

In order to achieve a more valid output for the expert interviews, the Delphi technique is applied in this study as well. This is a widely-used method for gathering data from respondents within their domain of expertise and was deemed a perfect fit for this research study, as it “attempts to address “what could/should be” (Miller, 2006). Here, participants do have the possibility of explaining their opinions in more detail.

The Delphi technique was established in the 1950s by the RAND Corporation, a non-profit organisation for market research and analysis, initially within secret studies for the planning of strategic weapon systems (Ammon, 2009:458). It strives for agreement between experts in a structured manner. Definitions are manifold (Amon, 2009:459). Haeder and Haeder (2000) defined it as a comparatively “strong structured group communication process, in which development facts, wherever only partial and unsure knowledge exists, are discussed by experts” (Haeder and Haeder, 2000:8). They point out that these are solutions for complex future circumstances, and that “there is a higher quality of problem solving in the result of the communication instead of using a collection of individual contributions by using the Delphi-Technique” (Haeder and Haeder, 2000:11). Moutinho *et al.* (2011) also state that the Delphi method of forecasting has attracted considerable attention in tourism literature since the late 1970s. This technique aims to obtain expert opinion about the future through surveys of a group of experts in the field, and is particularly useful for long-term forecasting.

Respondents provide their probability estimates for certain specified conditions to occur in the future, and also estimate when the trends would likely occur. Pillkahn defines the Delphi model as a method of analysing the future, as the panel attempts to agree on forecasts (2008:195). Because expert panels are usually recruited for Delphi, it is also a way to create new knowledge, or at least “to synthesize the knowledge and opinions from many experts” (Pillkahn, 2008:195). According to Delbecq, Van de Ven and Gustafson (1975), the Delphi model is, for example, used “to expose underlying assumptions or information leading to different judgements”, which fits with this thesis. In the present study, the views of the experts were collected in expert interviews as described above, evaluated and then given back to the participants in order to apply the Delphi method.

Haeder (2016) differentiates between four Delphi types, which were developed from the original Delphi method. Ammon (2009:463) highlights that, in practice, combinations thereof are possible and classifications are not always accurate. According to Haeder’s definitions, this study can be assigned to type two, as it allows the prediction of diffuse circumstances.

Despite the various definitions in the literature, there is a common opinion to certain characteristics regarding the Delphi method (Haeder, 2016):

- Usage of a formalised questionnaire
- Questioning of experts
- Anonymity of individual replies and experts
- Determination of a statistical group answer and given reasons
- Information of the experts about the statistical and verbal group reply of each round
- (Multiple) repetitions of the questioning

The feedback of the results from the different rounds particularly distinguishes the Delphi method from other qualitative approaches. The number of back couplings varies in the different Delphi studies, but two are recommended, which appeared to be difficult with the panel members in this research. The literature reveals that as many rounds must take place as necessary until the “desired convergence of results” (Ammon, 2009:461) has been achieved.

The sample selection is, according to Ammon, the “critical factor of a Delphi study and therefore with the quality of the results” (Ammon, 2009:466). The selection should be carried out by means of several parameters in order to enable valid results. Moreover, widening the group of experts is recommended in the beginning, depending of the estimated “panel mortality” (Ammon, 2009:465). There are no mandatory criteria for the number of experts in a Delphi study. Geschka (1977:42) states that 15-25 participants are sufficient, which should be expanded to 30-40 participants for more complex topics and research questions.

Table 26 looks at the advantages and disadvantages of the Delphi technique in the present research study.

View in the literature	Comparison to present research study
The selection and composition of the experts allows for access to a wide range of information and assessment opportunities for a certain topic.	The experts represent several aspects of the event management cycle and come from various management positions within their companies/organisations. This allows for a broad and diverse spectrum of opinions.
The dialogue-based character of questioning allows for the analysis of complex research questions in a hybrid and interdisciplinary framework.	Based on the back coupling of the results, a digital dialogue can be established.
It is possible to invite a bigger sample of different participants to represent various assessment approaches, which get and comparable.	The present study shows that participants from different parts of industry provided different opinions which were adjusted after back coupling.
A written Delphi study is more transparent and systematic compared to direct communication instruments, as a reciprocal influence of participants is not possible.	The present Delphi approach is an online method which allows very high taxonomy, control, and transparency.
An online Delphi study can be conducted regardless of location for study participants.	The participants participated from different destinations and at the best suitable time for each of them.
An online Delphi study is considered an especially economical method, as both time and cost savings can be anticipated.	In the present study all but one expert from the interview panel could be recruited for the Delphi method, as the online nature of it ensured both time and cost savings. Another oral round was regarded as too time consuming for the experts after the time-consuming interviews and one Delphi round.
The online method allows for failure control during submission as well as a control instrument which ensures that all questions have been answered. This ensures a higher quality of back coupling.	The online Delphi used a failure control and a control instrument to ensure all questions were answered. Missing questions was not possible, i.e. not permitted.
Online Delphi surveys offer a large degree of anonymity along with a good control of the process.	A control feature facilitated the checking of times.

Table 26: Advantages of the Delphi method

Source: own summary

Lee and Lings (2009:299) wrote “that there are four different scales, i.e. nominal, ordinal, interval and ratio.” In the present paper, the level of agreement was measured with a four-point Likert scale, with a value of one indicating strong disagreement and a value of four denoting strong agreement. The four-point Likert scale is an interval rating scale with which participants can specify their level of agreement or disagreement. According to Quinlan (2011:326) a “five- or seven-point Likert scale may produce slightly higher mean scores relative to the highest possible attainable score”, but here the goal was to not offer them a neutral position, as this is often chosen through low decisiveness. Instead, the knowledge questions in the expert interview offered a five-point Likert scale to ensure anonymity.

In the Delphi round, experts were provided with the lists of indicators, together with the mean rating for each indicator derived from the results of the interviews. By doing so, research participants were given the possibility of comparing their responses with the average rating of the other experts and amending or arguing their answers. With this method certain issues must also be taken into consideration in order to overcome any hurdles. These will be discussed in the subsection “overcoming data quality issues” below.

The Delphi technique was chosen as the appropriate instrument for the next step. Experts were provided with the lists of definitions, impacts, implications and key indicators. The findings from both the primary and secondary research could form the basis for developing the desired event sustainability model. This would achieve the fourth objective of this dissertation.

4.6.3 Survey - theoretical approach

While this dissertation was in progress, an association of scouts contacted the researcher in order to support the implementation of sustainable event management. This opportunity was taken and the research methods broadened by a survey conducted during a live camp of this association. Details will be given in the practical description of this study.

As a high number of completed questionnaires was desired, a quantitative method was employed. The form of a questionnaire guarantees the collection of objective circumstances and conditions, but the gathering of meanings and insights is also possible, which appears to be the right choice for a live event. On the other hand, target persons can refuse to participate, which can apply to the interviews and/or the Delphi round. Moreover, the interviewer or the situation might influence the interviewee more in this type of personal encounter compared to an online encounter or in form of an observation. As the expert interview is semi-structured and qualitative, the questionnaire designed for the association event is more structured and quantitative due to the high level of standardisation. As a group of students supported the researcher, this should help to ensure accuracy during data collection, neutrality, and comparability.

The questionnaire can be found in Appendices A5 and A6. Appendix A13 lists all methods involved.

4.7 Design of empirical study

As attitudes and readiness to actions are not directly observable, they must be identified through reactions to questions (Jonas *et al.*, 2010). Accordingly, three different questionnaires (a semi-structured expert interview, an online Delphi, and a questionnaire for the survey; see appendices A5 and A6) were developed, each of which will be described in the following.

4.7.1 Interviews - practical approach

In order to prepare the interviews, the questions were sent to the interviewees beforehand. This helped them to prepare for the topic. Despite the fact that all of the interviews were flexibly planned as conversations (personal meeting in the office or during a conference, recorded skype call), it turned out the tight schedules of the panel members still necessitated other options. Thus the possibility of answering via e-mail was provided, with a shorter, follow-up telephone or Skype call. These were recorded and supported by notes which simplified the transcription. These can be found in Appendix A14 in the digital version.

The semi-structured interview developed according to these specifications covers a range of topics and consists of three different sub-sections. Initially, the interviewer introduces herself, the topic, the anonymity clause, the time slot, and obtains verbal consent for recording. Several topics follow, which will be introduced in more detail in the following. Appendices A5 and A6 show the detailed structure, which can be matched to the objectives. The procedure and the reason for the recording were explained first, the interviewee was then given the chance to ask any questions, and the interviewer assured confidentiality, as the data will be used for the dissertation only.

The goal was to gain expert insight into the different definitions, chances and risks. Besides knowledge questions there were also open questions for potential suggestions for improvement as well as for chances and barriers in sustainable event management. These additional insights help to answer the research questions and to develop the model. The interview concluded with knowledge questions and, finally, socio-demographic questions.

Some conversations required re-ordering of questions to improve flow, and this adapted order appeared to facilitate more fluently. Thanks to the semi-structured set-up, re-ordering questions posed no problems. The areas discussed are shown in the Table 27:

Question no.	Measurement aim
1	Sustainability knowledge
2	Sustainability knowledge
3	Experiences
4	Status quo
5	Status quo
6	Status quo
7	Status quo
8	Status quo
9	Status quo / Impact of handling options
10	Status quo / Perceived ease for behaviour
11	Status quo
12	Barriers
13	Trend or necessity
14	Responsibility
15	Status quo
16	Status quo
17	Status quo
18	Measurement
19	Indicators
20	Status quo
21	Readiness to act
22	Status quo
23	Status quo
24	Motivation
25	Sustainability knowledge / Personal consternation
26	Personal consternation
27	Personal consternation
28	Sustainability knowledge
29	Sustainability knowledge
30	Sustainability knowledge
31	Sustainability knowledge
32	Sustainability knowledge
33	Sustainability knowledge
34	Socio-demographics

Table 27: Measurement aims in questionnaire design for identifying the panel’s approach to sustainability

Source: own display

Newly reported insights could be discussed through direct inquiries, and the open and knowledge questions allowed for the collection of new data and issues which could be taken up during the Delphi round. After the pre-test, the final interview (Appendix A5) was translated into English (Appendix A6) in order to meet the requirements of all respondents.

Contact and, moreover, a willingness to participate in the interviews, must be organised first. The accessibility and willingness to collaborate was a challenge with a few experts, as time is short and no compensation could be offered. Respect, expertise, competence and tactfulness – also with regard to experts’ tight schedules – were essential pre-requisites (Mayer, 2013; Niederberger und Wassermann, 2015). Moreover, early planning and communication of the research project to the experts, their acceptance, and individual appointments were required. Due to the lively nature of the industry, individual and flexible agreements were necessary, as events

have priority: they cannot be delayed and unexpected developments can make scheduling changes at short notice necessary. A pre-test was conducted in which the interview questions were presented to colleagues, native speakers and industry experts (Mayer, 2013). This allowed for subsequent improvement of the data collection method (Baur und Blasius, 2014) in the following stages:

- The introductory text provides the reader with additional background information for the study (note: this was also explained in the preparation phase via phone or e-mail). Nevertheless, the introduction was rewritten and an opportunity for questions was introduced to the beginning of the interview, which was not included in initial planning. This aims to increase the motivation to participate among the interviewees. All participants received the semi-structured questionnaire before the interview via e-mail in order to prepare.
- The questionnaire design was changed such that the knowledge questions (Questions 25 ff.) now occur at the very end instead of the beginning. This new approach aims to decrease possible demotivation, should an expert be unable to answer one or more of these questions.
- Questions deemed too complex, redundant, unclear or misleading could be identified and rewritten.

Fourteen interviews were conducted in German and four in English, or 18 in total. All respondents agreed to have their interview recorded, which allowed the interviewer to forego lengthy notetaking and concentrate fully on the interview, and minimised a possible distraction for interviewees (Liebold und Tricznek, 2009). Only a few bullet-points were jotted down for later inquiries.

The average duration of the interviews was around one hour and the different levels of experience in terms of sustainable event management were quickly clear.

The semi-structured interview included 24 direct, open- and closed-ended questions. The closed-ended questions contain multiple choice questions (nominal level) (Moehring *et al.*, 2010:80) and rating scales (interval ranges) in the form of verbal scales (dimension agreement) (*ibid*) with the options “fully applies”, “largely applies”, “partially applies”, “does rather not apply” and “does not apply at all”.

Verbal scales utilise the dimension frequencies never, rarely, often, and always. Rating scales are questions of intensity and are seen as appropriate for the graduate measurement of intentions and behaviour patterns (*ibid*). One question addresses hierarchy, and is also referred to as a rating scale and the generated data possess ordinal characteristics (Moehring *et al.*, 2010:81).

The questionnaire design included an icebreaker question, used to segue into the general topic, three filter questions, eight knowledge question with sub-questions, attitudinal and behavioural questions as well as one closing question regarding the interviewee’s socio-demographical background with seven sub-sections.

The jargon of the German events and meetings industry can be found throughout the questionnaire, for instance the use of the acronym GCB etc. This was done to increase the involvement and awareness of the interviewed persons.

Question 1, the icebreaker, was chosen due to the fact that the panel is generally expected to know of the general topic of sustainability. It should also create confidence and awareness towards the questionnaire and simultaneously reveal initial insight into the interviewee's level of knowledge and values. This is often regarded as an indicator for sustainability awareness and behaviour, or a lack thereof (Hellbrück *et al.*, 2012:87), but at the very least a certain predisposition to the topic. If, for example, the majority of interviewees connect the idea of sustainability with ecologic aspects, a certain interest in protecting the environment can be assumed, i.e. a receptiveness for persuasive communication. Chapter 2 highlighted the inflationary use of the term sustainability. This question aims to reveal whether an interviewee understands the phrase "sustainability" at a deeper level, i.e. encompassing all three pillars of sustainability.

Question 2 is an open question intended to lead to the topic of interest, i.e. sustainable event management. Here, the experts had the possibility to define what this term actually means to them. The analysis via Mayring helped to identify the common focus of the panel: speaking about social justice, but not poverty reduction or the consideration for future generations, leads to the assumption that only a rudimentary understanding of the generic term "social justice" is present.

The results will also form the basis for the creation of target group-oriented communication. After the basis has been formed by eliciting definitions of sustainability and sustainable event management (question 1 and 2; objective 1), the Questions 3 to 13 as well as questions 15-24 look at the status quo of sustainable event management in Germany (Objective 2) and the motivation and barriers to introducing it (Objective 3). Moreover, measurement initiatives, effectiveness criteria and indicators are requested here as well (Objective 4; Questions 18 and 19).

Questions 14 and questions 25-33 identify sustainable knowledge as well behavioural and attitudinal statements. Question 14 is a half-closed question, as the last answer option is "other". Five additional multiple choice answers are suggested, too. These questions serve to measure the defined elements of environmental awareness. According to Spada (1990), this is the *Ecology Scale* of Maloney and the concurrently developed German-language equivalent from Kley and Fietkau (1978) (refer to Chapter 2). The answers support immediately whether the attitudes and origins are cognitive, affective or conative, and if the strength of these attitudes can be regarded as wide or narrow. The results will support the creation of target group-oriented communication as well. The questions refer to the identified measurements of the different fields of action for every single column (appendices A5 and A6). The fields of action are mobility, energy and climate, waste management, water management, catering, location and accommodation. Question 14 is a multiple choice question with six answer possibilities. It measures interviewees' perception of their responsibility for protecting and restoring the environment as well as the perceptions of others, i.e. politicians, enterprises. The extent of the perceived responsibility can be identified by the quantity of the chosen answers. If, for example only one answer is chosen, the perceived complexity of responsibility is narrow; if five are chosen, it is instead wide.

Question 25, a verbal rating question with six items is intended, with reference to Gifford (2011a), to identify socio-psychological barriers towards more sustainable action (Chapter 2). Statements, i.e. items, are formulated such that each reflects one socio-psychological type of barrier (Table 28). Six barriers were identified out of 28 as best matching for the target group. Identifying barriers will also support the development of target group-oriented communication: if the barriers are known, specific communication measures can be used to minimise or even eliminate them.

Questions 26 and 27 aim to evaluate awareness and consciousness of sustainability as well as actual commitment towards the topic by asking about concrete actions: for example, do they eat less meat nowadays? Finally, Question 27 lists seven sub-issues where the panel members could answer using a scale (never, seldom, often, and always). Here, no middle option was given in order to force participants to reveal their true position.

Item	Category of barrier
Even if I as an individual act more environmentally conscious, for instance by driving less often, this only represents a drop in the bucket.	Perceived lack on influence/limited perception
I think that new technology will tackle the problem of global environmental pollution.	Salvation through technical advancements/Ideologies
There are so many polluters in industry and the economy that I will not see any impact if I choose sustainable behaviour in my daily life.	Perceived injustice/Comparisons with others
It is not clear whether climate change is solely due to humans.	Denial/Lack of commitment
In other countries such as India or China there are much bigger environmental problems. Here, the risks from climate change are not so serious.	Biased underestimation/limited perception
I cannot hear the phrase "sustainability" anymore. There are so many companies, scientists and politicians who use it for green-washing.	Mistrust/lack of commitment

Table 28: Items and their corresponding social-psychological barriers

Source: Gifford (2011), own display

Questions 28 to 33 are five multiple choice questions with only one correct answer option and one ranking question. These are knowledge questions and aim to measure interviewees' sustainability knowledge, i.e. knowledge of the impacts of specific fields of action. Thus, they analyse the cognitive attitudinal component. Sustainability knowledge focuses on abstract background knowledge that can create general readiness to act and not precise knowledge on how to act (refer to Chapter 2). The results here will, similarly to the preceding results, be used for developing target group-oriented communication, the impact assessment and the sustainable event management model. Moreover, the impact of existing or non-existing background knowledge on the interviewee's personal consternation, readiness to act and self-reported behaviour will be highlighted as well: is there a relation between knowledge and sustainable behaviour? The knowledge questions were purposely put at the end of the questionnaire in order to prevent any demoralising effects in case interviewees felt they answered "incorrectly".

Question 34 with seven sub-questions explores personal data for socio-statistical evaluation purposes and requests the following socio-demographic data: age, association affiliation, position, gender, number of children living in the household, and education (highest achieved school degree, completed apprenticeship or university degree).

The questionnaire closes with a description field for possible supplementary notes and reveals the correct answers to the knowledge questions. Moreover, the panel members have the chance to request the study results by leaving their email address.

As already mentioned, it is designed as a semi-structured interview, i.e. these questions are used as a guideline, but leave space for additional comments and to share experiences.

The following section will shift the focus to the online Delphi and provide an explanation similar to the previous sections.

4.7.2 Online Delphi - practical approach

The experts were already asked during the interviews if they would be willing to participate in an online Delphi. Nevertheless, they were contacted again beforehand for confirmation and sent the link for the online Delphi. Here, pre-determined answers were suggested for the most important questions and attitudes in terms of the study, which were distilled from the experts' answers through a qualitative content analysis per Mayring, which will be described shortly.

Based on the theoretical considerations, the secondary studies from the literature review, the development of sustainability and the target group, as well as the insights from the pre-study, eight statements were developed and then verified in a subsequent step using the Delphi technique. The Delphi study is based on the judgements, opinions and comments of experts representing German and international companies with a sound understanding of the German meetings market.

The online Delphi consists of a non-incentivised written survey for the time period 7-18 December 2017 and was prepared and executed via the online tool Unipark from Questback (Unipark, 2015). The link to the survey was sent out to all 18 interview experts via email. Seventeen of them participated in the online Delphi. The generated link was sent to several testers beforehand using different smartphones (Android, iOS), tablets and PC's (Mac and Windows) to ensure that no error messages occur. Following the expert interviews, the online Delphi includes eight direct, half-closed and fully closed-ended multiple choice questions. The closed-ended questions contain multiple choice questions (nominal level) (Moehring *et al.*, 2010:80) and rating scales (interval ranges) in the form of verbal scales (Dimension agreement) (ibid) with the options: "fully applies", "largely applies", "does rather not apply", and "does not apply at all". The answer options were generated from the answers given by the panel members during the expert interviews. These were analysed with the content analysis scheme from Mayring (see below and Appendix A15).

Question 1 identifies experts' values regarding sustainability and the chosen replies can be considered indicators for sustainability awareness and behaviour, or a lack thereof (Hellbrück *et al.*, 2012:87), or at the very least a certain predisposition to the topic. If, for example, the majority of the interviewees connects sustainability with ecologic aspects, a certain interest in protecting the environment can be assumed, i.e. a receptiveness for persuasive communication. This was also done in the interviews. Chapter 2 highlighted the inflationary use of the term sustainability. This question aims to reveal whether experts have a profound understanding of the phrase sustainability, i.e. encompassing all three pillars of sustainability.

Questions 3 to eight strive to evaluate experts' consciousness and readiness to act sustainability, which is again, according Spada (1990), the Ecology Scale of Maloney and the German equivalent from Kley and Fietkau (1978) (Figure 23). Similar to the expert interviews, the replies will show if attitudes are cognitive, affective or conative and if the strength of these attitudes can be regarded as wide or narrow (Table 16). The results will help to develop target group-oriented communication as well. The questions refer to the identified measurements of the different fields of action for each pillar (compare Appendix A7). The fields of action used here are

mobility, energy and climate, waste management, water management, catering, location and accommodation.

Question 2 is a verbal rating scale and aims to measure the personal consternation of interviewees; thus, it touches on the active intention component. The meaning of emotions, which is connected to positive behavioural change according to the social-psychological literature, can be supported by these results.

Question 3 is again a multiple choice question with 23 answer possibilities in form of a rating scale. It measures the criteria associated with sustainable event management. The extent of the perceived importance can be identified by the quantity of the chosen answers. If, for example only one answer is chosen, the perceived complexity of importance is narrow. If, on the other hand, five are chosen, it can be considered wide. Question four is similar, asking for important criteria when choosing a location. Fourteen answer possibilities were given, encompassing each of the three pillars of sustainability in the form of multiple choice answer options.

Question 5 serves to evaluate the perceived barriers towards sustainable event management. The online Delphi dispenses completely with verbal, dichotomous alternative rating questions and focuses solely on multiple choice questions. This is due to the fact that the answers are distilled from the expert interviews.

Question 6 aims to identify the benefits connected with sustainable event management in the experts' opinions, while Question 7 attempts to identify the indicators used for measuring the sustainability of events. As the results from the qualitative content analysis reveal that nearly no measurement takes place yet, the answer possibilities here were taken from the literature as well.

Question 8, the concluding question, strives to identify experts' readiness to act more sustainably with 13 answer options. This behavioural question serves to measure self-reported behaviour, i.e. the extent to which interviewees engage with the topic of sustainability in professional matters. Accordingly, the block concentrates on the conative component of their attitudes. This represents a wide connotation according to Spada (Table 16). Current studies have neglected this approach (Hellbrück *et al.*, 2012:91). The questionnaire closes with a description field for possible supplementary notes and reveals the correct answers to the knowledge questions.

4.7.3 Survey - practical approach

In addition to the expert interviews, a survey was conducted during a live association event. The case study at hand was developed together with the German Scout Association (*Deutsche Pfadfinderschaft St. Georg*, DPSG), the largest child and youth association in Germany with approximately 95,000 members. During their annual event Pentecost in Westernohe event (*Pfingsten in Westernohe*, PiW) at a rural camp site in the Westerwald region of Germany, more than 4,000 scouts come together to enjoy the Pentecost weekend on site, living in tents, celebrating their roots and traditions.

Together with students from Rhine-Waal University of Applied Sciences in Kleve, Germany, the author had the chance to be on-site for two days (Saturday and Sunday, 3-4 June 2017) and to conduct a survey in person. The goal was to complete at least 300 questionnaires. In the end, a total of 763 were completed by the scouts. As the research team had the chance to spread out over the campgrounds, many scouts were able to be recruited for the survey. In order to support the DPSG questions regarding their freshly published *Green Events Guidelines*, relevant

information was included as well in order to generate publicity and interest in their application. Moreover, the questionnaire aimed to identify approaches and the readiness of respondents to act, as approaches and attitudes are not directly observable (Jonas *et al.* 2010). Event participants were informed prior by the DPSG board about the research and the co-operation with Rhine-Waal University.

To provide helpful background information, the association will be described first, before highlighting the characteristics of the Pentecost event itself. This is followed by the description of results, leading to a discussion thereof and derived recommendations for action.

The German Scout Association St. Georg (DPSG) was established in 1929 and is a children and youth association closely connected to the Catholic Church. With some 95,000 members, it is one of the biggest children and youth associations in Germany and is member of the World Organisation of the Scout Movement. It is organized similarly to the Catholic Church with several diocese sub-associations in different cities and these dioceses form the federal organisation. In total, the DPSG includes 25 dioceses, 1,200 troops and 137 districts (DPSG n. d.).

The association is divided into different age levels. The youngest, ages seven to ten, are the “cub scouts” (*Wölflinge*), recognisable by their orange scarves. The next age level includes the “young scouts” (*Jungpfadfinder*), between ten and 13 years old, who wear green scarves. The olds youths are called “Rover” both in German and English. This level is for teenagers between 16 and 20, and they wear red scarves. Troop leaders wear grey scarves (DPSG n. d.) and this position is open to scouts when they turn 18. In 2017 a new level (“beaver”) was introduced for children between four to seven years of age.

The association unites different working circles at its federal level such as ecology, inclusion, and international justice. The working circle “ecology” is dedicated to educational, lobby and pastoral aims. The educational aims strive to highlight the relevance of environmental issues to the children and supports them in making their own findings and choices. “Lobby aims” concentrate on climate politics and strive to give the scouts a voice in politics and society. “Pastoral aims” deal with the question how the environment and its society shall be treated (DPSG n. d.). In other words, the DPSG works to introduce their members to politically and socially conscious behaviour that considers inclusive, sustainable and ethical attitudes and to teach children to take responsibility for their environment. Thanks to international events with scouts from different countries, intercultural and diversity-related skills can be acquired as well.

The German headquarters are situated in Westernohe, in the Westerwald region of Rhineland-Palatinate. Every Pentecost weekend, more than 4,000 members of the DPSG gather there and participate in a multi-day events. Every year is dedicated to a specific topic. The biggest events on-site are the concert in the amphitheatre Saturday night and the service on Sunday (DPSG n. d.).

The working team “ecology” already developed its own *Green Events Guidelines* in order to inspire troops within the organisation to act more sustainably during their own DPSG events. The questionnaire at hand was developed by a project group of students from the study programme *Sustainable Tourism B.A.* of Rhine-Waal University in Kleve, Germany. A group of five travelled, together with the author, to the Pentecost event in order to conduct a study aimed to identify the value of sustainability in the events planning of the scouts as well as the awareness and implementation of the *Green Events Guidelines*. The survey is based on a non-incentivised personal survey, as the database of email addresses for DPSG members and leaders is

incomplete. An important consideration to note is that the sample is extremely homogenous, as only association members of the DPSG on-site at the event were interviewed.

The questionnaire consists of 23 questions and was completed by 763 persons on site. The research design was discussed in Chapter 4 and the findings will be presented here. Data records from the cub scouts (*Wölflinge*) was excluded due to their age, incompleteness of the questionnaire as well as the fact that they have not dealt with all the details of the event planning and logistics yet. In terms of socio-demographics, 333 females and 415 males took part in the survey, or 748 responses to this question, meaning 15 persons declined to answer it. The average age of respondents was greater than 20 years old. Among respondents were 159 young scouts, 235 Rovers and 352 group leaders. All interviewed persons were members of the German Scouting Association. This was, as already explained, a criterion when choosing the target group/sample. In terms of education, the majority of the sample achieved a level grade (258), 28 secondary school, 183 junior high and 169 were graduates of a university.

Similar to the interpretation of the results from the expert interviews above, the evaluation of results in this chapter adheres to the factors for minimising the behavioural gap identified in Chapter 3: identification of barriers, determination of sustainability awareness, and activity-oriented forms of intervention. The parameter of target group-oriented communication reflects the recommended actions for the target group event participants, which is based on the results of the other indicator identified beforehand. Before highlighting the results of the data analysis of the various factors, an understanding of the term sustainability will be verified first. This fits the discussion in Chapter 2, underlining the inflationary use of the phrase sustainability and the expert interviews (Appendix A5, Question 2). It is also a factor and will be taken into account for target group-oriented communication.

The first paragraph of the questionnaire mainly evaluated the awareness of sustainability among DPSG members participating in the Pentecost event. The questions concerning the implementation of the *Green Events Guidelines* for association-wide events and this Pentecost event in particular will be discussed in the following.

The questionnaire contains of 23 direct, open, half-closed and closed questions. A verbal scale uses the dimension frequencies: never, seldom, often and always. Rating scales are intensity questions and therefore can be considered applicable for measuring attitudes and behaviour (ibid.). There is also a hierarchy question, also referred to as a rating scale, and the generated data show ordinal levels (Moehring *et al.*, 2010:81; Saunders *et al.*, 2016). Here, the introductory text informs the reader about the connection between DPSG and Rhine-Waal University in order to underline the relation and the relevance of the topic. This is intended to increase interviewees' motivation to participate. The questionnaire design was amended in that the knowledge questions (Question 19) were removed from the survey, as it would have been too long for this specific event.

Question 9, which investigates opportunities for train journeys in connection with association activities, was broadened to include the answer option "Yes, with a private shuttle bus." The pre-test revealed that this is one of the main reasons why many participants choose not to arrive by train. This was also confirmed by the study results and considers target-group oriented communication. The Pentecost event in Westernhohe, from 2-5 June 2017 was chosen for the survey as it represents a gathering of high-ranking positions, organisers and other members within the association and it is the biggest gathering of the year for the German Scout Association. An added benefit of choosing this event was the opportunity to strengthen the involvement and imagination of interviewees towards sustainable event management. Trepidation regarding the

length of the questionnaire was not confirmed by the persons completing the pre-test. This was true for all three forms of empirical research. They considered the length appropriate, as it incorporates both awareness and a certain “arc of suspense”. Moreover, the amount of involvement was regarded as adequate, as several questions link directly to DPSG events (due for the DPSG survey). Comprehensibility, layout, technical implementation and the neutral tone were rated positively as well.

In terms of questionnaire design and dramaturgy, no icebreaker question was used at the beginning, but rather a direct entry question, followed by rating, filter, awareness and behaviour questions. The questionnaire closes with personal details. The whole questionnaire uses DPSG jargon such as “Green Events Guidelines”, “DPSG” or “Rover”. The aim here is to establish greater personal connection and awareness. For the design of the booth on site, a banner from the DPSG was used in order to underline the uniqueness of the survey. The position of the booth was changed during day one and two, as the initial position turned out to be a dark corner. As the weather was splendid, the booth was brought outside on the second day to a bright area which resulted in many completed questionnaires. Several interesting discussions and exchanges evolved spontaneously around the topic of sustainability at the booth, which proved enriching for everyone. Moreover, the research team was big enough to stroll around and invite event participants elsewhere to take part in the questionnaire.

The order and aim of questions were as follows:

After a verbal introduction, the researcher started directly with the first question. The introduction about the background of the study was also written on the first page of the questionnaire in order to offer participants the chance to read it and ask questions. Some respondents preferred to complete the questionnaire on their own, whereas others engaged in deep discussions with the interviewers.

Question 1 starts directly with an assessment of what sustainability is. Six answer options are given as well as a seventh, “other” blank field option, making it a half-closed question. It aims to establish awareness towards the topic right from the beginning, while also revealing initial insights into relevant knowledge and values. This is often regarded as an indicator for sustainability awareness and behaviour, or a lack thereof, (Hellbrück *et al.*, 2012:87) or at the very least a certain predisposition to the topic as mentioned in the descriptions of the other two forms of empirical data sampling. If, for example, the majority of the interviewees connects sustainability with ecologic aspects, a certain interest in protecting the environment can be assumed, i.e. a receptiveness for persuasive communication. The tendency to treat sustainability as a buzzword was discussed in Chapter 2. This question aims to reveal whether the respondent has a profound understanding of the phrase sustainability, i.e. encompassing all three pillars. The answer options are generic terms from the pillars (environment protection for the ecological column and social justice for the social column) as well as specific fields of action for the corresponding pillar, for example future-oriented action, reducing CO₂ emissions, or recycling. This serves to identify the level of understanding of the different fields of action in the specific pillars. For example, if a respondent ticks the box social justice, but not poverty reduction and/or to consider future generations, a rudimentary understanding of the generic term social justice can be assumed. The results will also form the basis for the creation of target group oriented-communication.

Question 2 is a closed multiple choice question evaluating the issue of responsibility. With the help of five answer possibilities, it measures interviewees’ perception of their responsibility for protecting and restoring the environment as well as the perceptions of others, i.e. politicians,

enterprises. The extent of perceived responsibility can be identified by the quantity of the chosen answers. If, for example, only one answer is chosen, the perceived complexity of responsibility is narrow; if, on the other hand, five are chosen, it can be considered wide.

Question 3 is a verbal rating scale and aims to measure the personal consternation of the interviewees; thus, it touches on the active intention component. The meaning of emotions, which is connected to positive behavioural change according to social-psychological literature, can be supported by these results.

Question 4 is verbal rating question with dimension frequencies (never, rarely, often, and always) and five items. It strives to identify how deeply sustainability is already connected in delegates' daily lives. Four answer options are offered (never, seldom, often, always); the lack of a fifth, middle option was intentional, as studies reveal that panel members tend to choose this one (Saunders *et al.*, 2016). The question highlights the areas of using and giving lifts, the use of recycled papers, energy saving devices, water saving measures and groceries with eco-labels.

Question 5, where again multiple choice answers are possible, checks the awareness and reach of certain certificates in a half-open manner, as "other" could be chosen and custom answers added as well (refer to Chapter 3).

Question 6 was included specifically for the association where the survey took place and aimed to evaluate the awareness of the recently published Green Events Guidelines by the association itself. Question 6.1 is a filter question asking for the perceived level of implementation, if known.

Questions 5 to 13 are an equal mix of questions with answer choices and verbal rating questions (dimension agreement). There are three dichotomous alternative questions; the others are multiple choice questions. Verbal commitment is measured by the various above-mentioned fields of action and the readiness to act in the sense of a verbal commitment for the different association events (e.g. "Bundeskonferenz", Pentecost weekend in Westernhohe). Questions 6 and seven include filter questions (refer to Appendix A7) to identify those willing to change their readiness to action when given options to act.

Though not actually filters, Questions 10 and 14 also measure the impact of options to act and incentives to act as well as the impact of the subjective norm. Moreover, these questions involve a control question and a control answer among the different answer options. The answer possibilities "I am definitively ready to take the train" and "I am definitively ready to take the shuttle" (compare answer possibilities nine and ten) serve to verify the consistency of an interviewee's answer for Question 8: "Yes, I am in general ready to travel by train or private shuttle to the events of the German Scout Association" (i.e. without any options to act or incentives to act).

The fourth filter question (Question 10) aims to identify the reasons for pre-existing readiness to forego arrival by car. Questioning the reasons reflects the third variable of the *Theory of Planned Behaviour* from Ajzen (compare Figure 25), perceived behaviour control, i.e. the perceived readiness of interviewees to execute this behaviour. If this is rather low, the desired behaviour is rather unlikely, for example due to expensive train tickets. In addition, the second answer option helps to uncover issues arising from structural barriers such as "poor public transport connections" (compare Chapter 2).

Question 13 is multiple choice, Question 16 is a dichotomy of alternative options, and Question 17 is a verbal rating question with dimension frequency (never, rarely, often, always) and eight items. All three questions are behavioural questions and measure self-reported behaviour, i.e. the extent to which the interviewees engage in sustainability practices in private and professional matters. Similar to the empirical study with the experts, this section focuses on the conative component of motivation and highlights a wide connotation according to Spada (Table 16).

Although Questions 8, 19 and 23 are not the concluding questions, they already incorporate summaries and attempt to identify respondents' attitudes towards more sustainable event management approaches within the German Scout Association. By using pre-determined answer possibilities, these questions strive for a direct, conscious assessment of interviewees, which can be designated easily. This is referred to as explicit attitude in socio-psychological research (Aronson *et al.*, 2014:222).

Questions 20 onwards poll personal data for the socio-statistical evaluation and request the following socio-demographic data: level in the association (*Wölfling*: seven to ten years, *Jungpfadfinder*: ten to 13 years, *Pfadfinder*: 13 to 16 years, *Rover*: 16 years and older), education (highest achieved school degree, completed apprenticeship or degree programme) and gender. The survey was evaluated via the statistical programme SPSS.

In total, 18 expert interviews, 17 online Delphi and 763 DPSG surveys ($n = 798$) could be used as primary data for evaluation in Chapters 5 and 6, building the foundation for the desired model.

4.8 Sampling

A non-probability sample is “a sample that has not been selected using a random selection method” (Bryman and Bell, 2003:104) and is generally associated with qualitative research methods and inductively-based paradigms (Horn, 2009; Hussey and Hussey, 1997; Jennings, 2001), which applies to this research study. Due to this approach, no generalisations can be made (Gill and Johnson, 2002; Bryman and Bell, 2003).

A population comprises all study objects that are the focus of the research project (Ticehurst and Veal, 1999). This means in this case all experts involved in the meetings industry, who together build the sampling framework, as they represent all members or units of the study population (Jennings, 2001).

Non-probability sampling techniques can be classified into convenience sampling, quota sampling, snowball sampling and purposive sampling (Saunders *et al.*, 2016; Bryman and Bell, 2003; Jennings, 2001). Purposive sampling means that the researcher determines which study units are appropriate for the survey based on the closeness of fit to criteria associated with the study's focus (Horn, 2009; Hussey and Hussey, 1997). Consequently, such samples “cannot be considered statistically representative of the total population” (Chisnall, 2001:114). When selecting the most appropriate research subjects, the choice was obviously limited to experts who showed interest in the research project. Therefore the researcher contacted experts of the meetings industry by email long beforehand to establish contact and arrange appointments, a recommended approach according to Crouch and Housden (2003:201), who stress that the participant is interviewed in his/her role as business person and the need is to “secure their co-operation during working time.”

Given the interest in trends such as sustainable event management which affect the entire industry rather than just specific industry players, a broad representation in the composition of the panels was sought. Due to the fragmented nature of the industry, project managers, key executives and seniors from convention centres, convention bureaus, hotels, professional congress organisers, industry associations, destination marketing companies, and academia were contacted. In order to compile a list of suitable candidates for the panel, industry publications and industry award listings were consulted to expand the researcher's own personal knowledge of influential industry professionals. The experts were chosen on the basis of their experiences in industry and their status.

While the number of participants is rather small, it is important to remember that the Delphi method is qualitative in nature, and it is the quality of the panel experts in terms of their experience and expertise to judge an issue rather than their number that is critically important to the quality of the study findings. Having participants from different countries and different professional backgrounds, but all with profound knowledge and strong business relationships in the international and especially German meetings industry, enriches the quality and diversity of answers.

All primary data (expert interviews, online Delphi, association event survey) was obtained in 2017. The interview phase began in March 2017 and ended in October 2017. Using an initial cover letter, 33 short-listed experts were invited (see Appendix A4) to take part in the semi-structured interviews. Eighteen experts confirmed their participation. After the interviews, the answers were analysed using the Mayring method described in the following and summarized in the online Delphi questionnaire. As all participants agreed beforehand to the Delphi round, the link to this back coupling portion was sent out in December 2017. They received this email with a deadline of 18 December 2017 as a blind copy in order to ensure anonymity. The link was accessible for eight days and displayable on both mobile and desktop devices. This approach was used in order to ensure participants' ability to participate regardless of time and location. The administration and control of the survey took place via an admin login, which allowed for a running overview of the number of completed surveys or possible technical issues.

The following quality criteria for expert interviews were taken into consideration (Bogner, Litig und Menz, 2014):

- Voluntariness of the expert's participation (information about project and target, no forced participation, e.g. by superiors)
- Anonymisation, or consent to be named, through numeration in the appendix and in the text portion of the dissertation using letters/numbers only. The corresponding institution can only be identified in the appendix (see Appendix A4).
- The interviewer behaviour aimed to support trust, not misuse his/her role or gain information under false pretences, and avoid any confrontational questions.

All interviewed persons are involved in the meetings industry. The quality of information during the interview is influenced by the selection of interviewees (Gläser and Laudel, 2010:117). In order to detect relevant results for this study, it was advisable to find interviewees who can offer broad information due to their positions (*ibid*) or unique perspectives. Accordingly, the interviewees were invited and selected due to their different positions, associations, backgrounds, and companies in order to form a broad pool of insight and experiences and ensure valid, complex data.

Experts can be seen as hubs of relevant insider knowledge, easily mobilised, accessible, are familiar with questions and can argue their points of view. The not definitively standardised procedure was flexibly adaptable to this research project (Boger, Littig and Menz, 2014) and also to the interviews due to its semi-structured layout. Interviews with experts of the meetings industry were expected to generate knowledge in the following areas (Boger, Littig und Menz, 2014):

- Industry related knowledge: data, facts
- Process knowledge: insights in processes and structures, interactions and organisational constellations, events and experiences
- Interpretative knowledge: subjective (industry-related) relevance, perspectives, interpretations, explanatory patters of the experts

One focal point was evaluating experts' knowledge of the underlying processes for organising and implementing sustainable events.

A random sample (reasonable probability sample) was chosen for the interviews. The willingness to participate in the interviews and subsequent Delphi round could not be influenced. No other stakeholders were included, as expert insight formed the focus of the research project (Mayer, 2013).

The sampling pool was composed of experts from the meetings industry in Germany, Sweden, the Netherlands, and Austria who conduct events in Germany or work with German partners such as event agencies or international lecturers in event management teaching in Germany, filtered by the mandatory criteria that the professional congress organiser offers (sustainable) event management and has business relationships with Germany (Hussy, Schreier and Echterhoff, 2013).

These organisations were sorted by relevance (criteria: company size, departments). An overview of the basic population of experts offering sustainable events and the actual interview partners is shown in Table 29 and Appendix A4. Thirty-one experts were contacted via email and/or personally. Thirteen experts declined due to time or a lack of interest, which resulted in 18 completed expert interviews. Seventeen of these experts participated in the Delphi round as well. The interviewees were invited from different industry associations such as ICCA, UIA, GCB or GMIC. Moreover, meeting managers from venues, agencies, professional congress organisers (PCO's), destination management companies (DMC's) and convention bureaus (CVB's) were interviewed.

The following is a summary of all persons involved.

	Position	Encoding item
1	Project Manager, Convention Bureau	E1
2	Professor of Sustainable Event Management	E2
3	Director Event Supplies	E3
4	Senior Project Manager, DMC	E4
5	Director, Sustainable Event Agency	E5
6	Sustainability Manager, Convention Bureau	E6
7	Head of Division Environmental Communication, Location / Professor for Sustainable Event Management	E7
8	Project Manager Conference Organisers	E8
9	Sustainability Manager, German Scout Association, eon energy	E9
10	Senior Project Manager, conference organisers	E10
11	Senior Event Manager, internal event and meetings department	E11
12	Senior Project Manager, DMC	E12
13	Head of Division Conventions, Convention Bureau	E13
14	Freelance event manager	E14
15	Event Specialist, internal meetings and events department	E15
16	Senior Project Manager, event agency	E16
17	Head of Event Management, event agency	E17
18	Project Manager, event agency	E18

Table 29: Interviewed experts

The chosen sample must consist of as many different persons and suppliers from the meetings industry as possible.

Method	Expert Interviews	Online Delphi	Event Surveys
Time period	March-October 2017	December 2017	2-4 June 2017 (Pentecost)
Participants	18	17	763
Average time	Approx. 1 hour	Approx. 10 min.	Varied from 6-7 minutes to approx. 20-25 minutes
Composition	Industry experts	Industry experts	Association event participants, organisers
Language	14 in German, 4 in English	13 in German, 4 in English	All in German
Gender	3 male, 15 female	3 male, 14 female	345 male, 397 female, 21 n/a
Positions:			
Sustainability Manager	3	3	
Event/Project/Marketing Manager	11	10	
Director	3	3	
Lecturer	1	1	
Destination Management Company	2	2	
Convention Bureau	1	1	
Professional Congress Organiser	1	1	
Event Agency	4	4	
Association	4	4	
University	1	1	
Industry Supplier	1	1	
Pharma Company	1	1	
Ministry	1	1	
Event Venue	2	2	
In-house event department	2	2	

Table 30: Distribution of the sampling based on research method

Accordingly, Table 30 presents a summary of the field research: We see here that the expert panel was dominated by women (3/15 ratio), whereas this was nearly balanced among the survey participants of the DPSG (397 male vs. 345 female, see Appendix A11, Figure 86). Here, only respondents over the age of 16 were included. The experts were asked if they had children in their household, which was confirmed by two thirds of them. This question represented a correlation variable for a positive attitude towards sustainability in accordance with Spada and especially for emotional, personal consternation.

In terms of education, we see that all experts completed their A-levels, whereas this only applies to 41% of survey participants from the DPSG. 25% graduated from university, which has been received by 17 from 18 experts, too (see Appendix A11; Figures 85 and 88). When asked about their position within the association, we found that 349 leaders, 244 rovers and 156 scouts completed the questionnaire on-site (Appendix A11, Figure 46).

Thus a varied sample distribution was achieved in terms of research methods, industry experts and association event participants. While the sample was intended to include a variety of experts and insights, the next paragraph will identify possible data quality issues and how to overcome these.

4.9 Overcoming data quality issues

Judging by the listed benefits above, the devised technique appears to be the most suitable method for achieving the purpose of this research. Nevertheless, the research strategy and the way in which it is selected have implications for the validity, generalisability, and reliability of data, as well as for logic leaps and false assumptions regarding the confidence of data (Finn *et al.*, 2000; Saunders *et al.*, 2016; Bryman and Bell, 2003). The next section will identify sources of bias and how the researcher strove to overcome them.

In terms of an inductive approach such as this one, reliability is concerned with whether different researchers will make similar observations on different occasions (Chisnall, 2001; Finn *et al.*, 2000; Saunders *et al.*, 2016). According to Saunders *et al.* (2000:156), “reliability is regarded as not that important as when it occurs under a positivistic approach.” They (Saunders *et al.*, 2016:156) further argue that trying to ensure a standard approach in qualitative research would underpin its very strength, which is its “flexibility in exploring topics that are more complex.” The researcher attached more significance to the flexibility of the phenomenological and interpretive approach instead of data reliability, as this flexibility allows a deeper approach to exploring the research topic. This results in a high validity of data, which partly compensates for the issue of reliability. However, Horn (2009:196) underlines that the subjective notion of the validity of qualitative data is “closely coupled to the sampling system that was used.” This applies to this thesis as well, as the interviewees were chosen via deliberate sampling, which is in itself a form of selection. Moreover, the short-list of potential candidates initially contained 61 persons, 31 of whom are based in Germany which indicates a selection heavily influenced by the author’s origin. This must be compensated by verifying that the interviewed experts hail from a broad range of suppliers throughout the meetings industry as well as from a variety of countries, not just Germany. Saunders *et al.* (2009:157) point out that choosing managers of one organisation may likely result in the “good news syndrome.” The researcher aimed to reduce the likelihood of this bias by interviewing experts from different companies.

Qualitative data in general can provoke generalisability as it may be obtained from a relatively small number of study objectives (Bryman and Bell, 2003; Saunders *et al.*, 2016). Two main

advantages can help to offset this apparent bias: the in-depth nature of the information collected (Getz, 2007) as well as the significance of this type of research for theoretical propositions. In other words, these data quality issues are mostly offset by the ability to fully explore a topic, thus creating high validity.

Finn *et al.* (2001:158) refer to the point of semantic validity, which is achieved when “agreement is reached that the words that have been categorised together do have similar meanings” and Krippendorff (1980:157) adds that the “semantics of the data language corresponds to that of the source.” This is an issue to consider, as the research of this paper took place in countries other than the researcher’s country of origin, but bias was reduced, as the language used in the interviews was German where possible, the native language of both interviewees and interviewer, and English in the case of differing native languages. In the latter cases, permission to conduct the interview in English was obtained first. Obviously, the data collected had to be translated into English first in order to be applicable to this dissertation. Finn *et al.* (2001:158) suggest that bias, which could also occur during translation, is “reduced by using the method of back-translation”: the required data is first translated into English, then back into German. If the texts are identical, the translations can be considered valid. This method was applied throughout this research. The same procedure was also used during coding in order to prevent misinterpretations of data. Re-coding enabled comparisons with the original data, revealing where adjustments in coding and analysis were necessary.

According to Chisnall (2001:186), interviewer bias may occur when interviewers misinterpret “marginal responses” to fit their own expectations or the influence of the interviewer results in biased responses from interviewees. Moreover, the interviewer may assume certain knowledge is present, and therefore not provide any detail on certain issue. It is for this reason that the interviewer paid close attention to this topic during the research process and followed up with any issues where this may have happened (Horn, 2009). Easterby-Smith *et al.* wrote that “[a]ffinity and tacit knowledge might influence the interviewer to be less critical to the primary data collected” (2002:93), which underlines the importance of neutral behaviour throughout the research process to prevent inadvertent influences or misinterpretations. As the place and time an interview is scheduled may frustrate co-operation efforts (Chisnall, 2001; Horn, 2009), the appointments were planned far in advance to ensure they fit the experts’ busy schedules and to remain flexible in case of any appointment adjustments or delays.

Interviewee bias may occur in different forms like ignorance, difficulty, embarrassment, privacy, personal dislike, or refusal to give correct answers, which was prevented here by establishing trust and credibility in the early stages of the research process (Easterby-Smith *et al.*, 2002).

Well-developed approaches to questioning were prepared to decrease bias and increase the reliability of the information obtained. To prevent misunderstandings during an interview, the researcher formulated and explained questions in a clear and neutral way, and was prepared to ask probing questions where necessary. These probing questions were essential to exploring important aspects in more detail or where explanations were required to ensure a better understanding of the topic (Horn, 2009). Easterby-Smith *et al.* (2002:93) highlight the effectiveness of the “silent probe”, i.e. when the respondent is either reluctant or slow to answer a question, but are quick to stress that probing questions should never lead, as this could provoke bias (Easterby-Smith *et al.*, 2002). The use of difficult terms or foreign words, which might be misunderstood, was purposely avoided when possible. Where these terms were unavoidable, they were explained in a consistent manner. Moreover, the researcher ensured that questions contained only a single query, not multiple ones, and that they were formulated as simply as

possible. The importance of this issue was raised by Quinlan (2011). Once the initial draft of questions was set, the researcher tested them with project outsiders. The questions were reviewed and revised according to these results. Additionally, questions were re-formulated several times in order to be as clear and concise as possible, and most of them are open-ended to encourage extensive and free-flowing answers without bias, as the interviewer cannot suggest a direction for the answer.

A Dictaphone (the Skype call recorder) was used in the interviews to eliminate bias and increase the reliability of data, but this may also inhibit the interviewee, thus inadvertently reintroducing bias (Gillham, 2000). This concern was minimised by obtaining participants' consent for recording before the interview. To sustain the taped interview, notes were taken as well in case of any technical malfunctions or unforeseen background noise (Chisnall, 2001; Bryman and Bell, 2003; Saunders *et al.*, 2016). Moreover, the researcher practiced beforehand in order to be as neutral as possible and reduce the risk of leading questions, which may result in bias. After the interview, full transcriptions were made as soon as possible to sustain the fresh impressions. Here, the recordings proved very helpful. For analysis, the author decided to code the answers as the amount of data was too rich and required structured analysis to enrich validity. All transcripts, translations and coding schemes can be found in Appendices A14 and A15.

As mentioned above, the Delphi method also has certain disadvantages and issues which must be taken into account. While the number of study participants is rather small, it is important to remember that the Delphi analysis is qualitative in nature. Having the core ideas "summarized in a short questionnaire, results [get] measurable in another way which [leads] to more validity" (Quinlan, 2011:337).

On the one hand, all experts must be convinced "to participate in more than the interview only and a lower response rate may be the result" (Hsu and Sandford, 2007:5). Here, time constraints may be a burden. On the other hand, experts may tend to concentrate on their area of expertise only or, naturally, have different levels of knowledge on certain topics. These topics and opinions may be influenced by current internal focuses, too, and therefore not reflect an international and holistic major trend. This eventual subjectivity must be taken into account.

When using Likert scales, it is important to be aware of the tendency to choose the arithmetic mean. This "central tendency bias" or "social desirability bias" means that the interviewee wants to consciously or unconsciously portray themselves or their company in a more favourable light. As described above, the second round was conducted anonymously, only hinting at which answer stems from a specific expert. The author decided on this approach due to the social pressures which could otherwise occur during such a group interview and, again, due to time constraints.

Caution is required when it comes to the role of extraneous motives on the formation and expression of the opinions held by the participating experts (Hsu and Sandford, 2007). Experts may, for example, present a certain view of the future prospects of their own fields (i.e. overly optimistic), although a "tendency to self-fulfilling prophecies can also not be ruled out" (Pillkahn, 2008:195). According to Hsu and Sandford (2007), time may not only be a burden for participants, but also for the author, as the evaluation and preparation for Delphi research can also be time-consuming and laborious. Moreover, an appropriate level of consistency was strived for during the sample, i.e. the creation of an expert panel with similar composition, but the use of the semi-structured questionnaire as well as the alignment were also measures taken to this end. Jonker and Pennink (2010:86) underline that action research itself "bears the danger

of strong subjectivity” and the author must exercise caution here. The author attempted to avoid this quality constraint and bias by evaluating all issues from both sides, internal and external. For the study at hand, technical disadvantages in particular, which were described by Haeder and Florian, can be dispelled and thus present a positive result.

Literature	Comparison with the present research study
A fundamental criticism of the Delphi method focuses on the cognitive process of the experts. Whence comes the knowledge experts' base their opinions on and how is improvement expected from one round to another?	In the study at hand the experts are well-known and respected industry insiders, who are also known for their opinions in public, outside their companies/organisations.
There can be technical problems while using the internet.	No panel member reported any problems, regardless of platform or device, i.e. Android, iPad, iPhone or desktop PC. In addition, technical tests occurred beforehand.
There are no options to interrupt the answering process in the online version.	Through saved IP addresses, respondents could pause their progress after each page loaded, i.e. surveys could be answered over multiple sessions.
The login problem of internet-based Delphi surveys must be solved in order to ensure that every participant answers the study only once.	This was addressed by rigorous user management with IP addresses.

Table 31: Limitations of the Delphi method

Source: Haeder, 2016

All of these data quality issues must be considered beforehand to minimise possible bias and enable a high level of reliability and validity of the data obtained. The following will look at ethical considerations, expanding upon those already discussed in the preceding section.

4.10 Research ethics

As the critical and important nature of ethics is obvious, the following ethical issues were considered during planning and implementation of the research:

- Informed consent given by the participant after being provided with written information about the research
- Right to privacy
- Right of the individual to withdraw from the research at any time
- Right of the individual to have any personal information or data treated as either confidential or anonymously as befits the circumstances of the research
- Right of research participants to access the research findings

(Based on: Chisnall, 2001:432; Jennings, 2001:98; Saunders *et al.*, 2016:160; Horn, 2009:136)

According to Saunders *et al.* (2009:160), ethical concerns are also associated with the “power relationship between the researcher and those who grant access”, which can lead to different sources of bias which are clarified in a later section. In this vein, Quinlan (2011:84) underlines that it is essential to be engaged “in a critical reflexive manner with every aspect of the research process.”

4.11 Data analysis

As previously discussed, recorded interviews were transcribed and put into writing (Hussy, Schreyer and Echterhoff, 2013:246). Full and complete transcriptions were the goal, as these are indispensable for a full analysis of the data they contain (ibid.). Moreover, this method helps to prevent misunderstandings when data undergoes further processing, as all contextual information is still included (ibid).

An alternative would be to transcribe only paragraphs which are useful to answering the question and to delete the rest. However, this would capture only content, not the form and expression of the spoken word (Hussy, Schreyer and Echterhoff, 2013:246). Fillers such as “uahm” or “aeh” are not shown for readability purposes. Long pauses, pitch changes or special enunciation were not transcribed either. These deletions create better, clearer transcriptions and thus support the qualitative and comprehensive analysis of the interviews (Kuckartz, 2012:136). In order to optimise readability, the line spacing has been increased (Brunner, Knitel and Resinger, 2011:82) and, moreover, the lines have numbered, which improves the identification of special paragraphs or sentences (ibid).

The transcripts can be found in Appendix A14.

The three versions of literature content analysis (here: expert interviews) according to Mayring (2000) were applied in the specific stages:

- Explaining content analysis (gaining information for deeper understanding) for forming the contours of the research question and the rough structure of the theoretical framework.
- Structuring content analysis (categorisation of new insights in proven structures) for the theoretical foundations of the meetings and events industry (see Chapter 2).
- Summarising content analysis (summarising essential content) to identify core statements of different authors and the experts with regard to the research aim and objectives.

The current status quo of research in sustainable event management was summarised, analysed and interpreted in order to answer the research questions. As we have seen, especially the topics sustainability in general, sustainability approaches in the meetings industry, association events and indicator building have been researched intensively. The theoretical fields analysed here can be matched to the research objectives. The secondary data identified for the theoretical frame summarised before has undergone further analysis.

There are many starting points for analysing qualitative data gathered in a phenomenological approach and many authors provide guidance on the topic (Hussey and Hussey, 1997; Jonker and Pennink, 2010; Horn, 2009; Lee and Lings, 2009). The authors highlight that the process must begin beforehand, i.e. when designing the interview structure and deciding how and which questions to ask. It is important to consider that the goal is in-depth exploration, but already deciding on the sampling can add to the subjective view of the research. Moreover, due to the rather small sample only partial explanations are possible. Nevertheless, an attempt at generalisation was made through a methodology aiming at validity and a profound data analysis strategy. As Lee and Lings wrote, “[a]fter data collection, a huge amount of data has to be structured and reduced to its core ideas” (2009:161). Inductive research is said to be a more dynamic process and less linear than quantitative analysis. Thus, several analysis sessions were necessary.

The interviews were analysed using the *qualitative content analysis* method developed by Mayring, which aims to analyse written fixed communication systematically and theoretically (Mayring, 2010). This process, according to Mayring (2002:114), involves a text (here: the interviews) that is processed piece by piece using a defined system of categories. The analysis method used in this study is Mayring's summary method (2010). Using this method, the text material is condensed in order to reveal the most relevant data (Mayring, 2002:115). The amount of text and material are manageable and easily comparable via the summaries of the other interviews (ibid). Accordingly, only necessary data deemed meaningful for answering the research questions is distilled and preserved (Gläser and Laudel, 2010:200).

According to Mayring (2010:13) content analysis aims to:

- analyse communication,
- analyse fixed communication,
- proceed systematically,
- proceed in a rule-based manner,
- proceed on a theory-guided basis, and
- pursue the goal of drawing conclusions about certain aspects of communication.

Mayring (2010:59) states that determining the analysis schedule and certain criteria is necessary to making the analysis comprehensible for anyone unfamiliar with the topic. Table 32 shows the model for analysis used here (Mayring, 2010).

Defining the raw material	
Definition of material	Transcribed expert interviews
Analysis of the development situation	Primary data from expert interviews; For names, organisations and codes, see Table 29 and Appendix A4.
Formal characteristics of material	Data gained during interviews via meetings, skype calls, and emails with follow-up calls, recording and transcriptions, notes for further inquiries.
Question of analysis	
Direction of analysis	Striving to answer the research question and complete the aim of this thesis; Striving for confirmation or validation of the theoretical part; Striving for the development of recommended actions and the desired model
Theory-led differentiation of the research question	With the help of categories of the semi-structured guided interviews and newly constructed sub-categories for interpreting interviews
Flow-chart of the analysis	
Form of analysis	Summary
Flow-chart	Inductive category building
Analysis unities	
Encoding item (smallest text part within a category)	Only one word if statements are not complete sentences
Context unity (biggest text part within a category)	A connected statement about the topic
Evaluation unity (order of text parts)	Interview transcriptions after categories of the semi-structured interviews and the newly constructed sub-categories

Table 32: Analysis model

Based on the analysis model from Mayring, 2010:52 ff.

Detailed process of summarising content analysis	
Paraphrasing content bearing text parts according to first rule of summary	Re-drafting of all interviews in abridged version, retaining important text parts, coherent language level
Determining the level of abstract and generalisation of the paraphrases according to second rule of summary	Level of abstract: statements which support the answering of research questions; Generalisation: abbreviate statements further to derive similar statements
Reduction through selection according to third rule of summary	Summarising and combining of text parts with identical meanings
Compilation of summarised statements as category system	Category system which delivers possible answers to research questions
Back coupling	Deletion of irrelevant parts in the original text, potential new structuring

Table 33: Content analysis

Source: Own display based on Mayring, 2010:62 ff.

The qualitative content analysis can be conducted according to a specific sequence model (Mayring, 2010). The first point involves determining the material, analysis of the developmental situation, and determining the formal characteristics of the material. In the second step, the direction of the analysis and the theory-based differentiation of the research question is described in more detail. In the third step, the actual work on the analysis commences with the choice of targeted analysis technique.

Mayring (2010) developed three basic forms of analysis techniques: summarising the material, explication by introduction of additional material such as protocols or interviews, and structuring. When employing the summary and explication approaches, the categories are formed at the end of the analysis. This type of category formation is referred to as inductive category formation. In comparison, structuring (by a category system formed on the basis of theoretical foundations) is considered deductive category formation: the “goal of structuring qualitative content analysis is to filter out a certain structure from the material” (Mayring, 2010:65). The definition of coding, context and evaluation units is essential for this analysis technique in particular in order to be able to assign text passages to specific categories. However, defining these units also provides an important foundation for the other analysis methods, so this can be considered the fourth step in the implementation model.

In a fifth step, the analysis is conducted by means of the chosen method and, in a sixth step, reviewed on the basis of the research questions or hypothesis. In a seventh step, the results are presented and interpreted with regard to the starting point of the research (Mayring, 2010). For the research of this dissertation, the summary analysis technique was chosen for qualitative content analysis. The aim of this analysis technique is to reduce the present material to its essential components, to abstract them, and to assign themes using general categories (Mayring, 2010). The formation of categories is associated here with the close work on the material and referred to as inductive category formation, since the categories represent the result of the process and are not, as in the structuring technique, given from the beginning (deductive category formation). Thus finding relationships between text passages is necessary to viewing the respective overarching category holistically. Through this process, the summary becomes increasingly abstract during the analysis process, through the category system formed along the way, finally becoming interpretive for the evaluation of the results (Mayring, 2010).

According to Mayring (2010), the sequence of the summary is as follows. At the beginning of the analysis, evaluation and coding units are defined, and the evaluation units employed are clarified. In the next step, the coding units form the paraphrases that are drawn from the material. The paraphrases are formed from the shortened content of a sentence; unnecessary test

phrases are omitted in this step. Thus, a uniform language level is created that allows the next step of the summary: the generalisation. The individual paraphrases are generalised in this step and form a first level of abstraction. Generalisation creates congruent aspects that can be shortened, and irrelevant aspects for the research question can be sorted out.

The next step is the first reduction process, thus further summarising, condensing, and generalising in different categories that emerged from the generalisations. Tracing the categories to the paraphrases and examining whether they correspond to the research interest is essential here. Thus, superfluous categories must be omitted in this step if necessary, and missing ones must be formed. After the first reduction process, the summary is complete, but often a second reduction process is needed to group categories together. For this, the steps must be run through again until the first reduction point with the goal of achieving an even higher degree of abstraction. This process ends when the categories formed can be assigned to the result of the research and an evaluation can be made. The sequence model according to Mayring (2010) is summarised in Figure 36. Furthermore, the conducted steps of analysis can be found in Appendix A15.

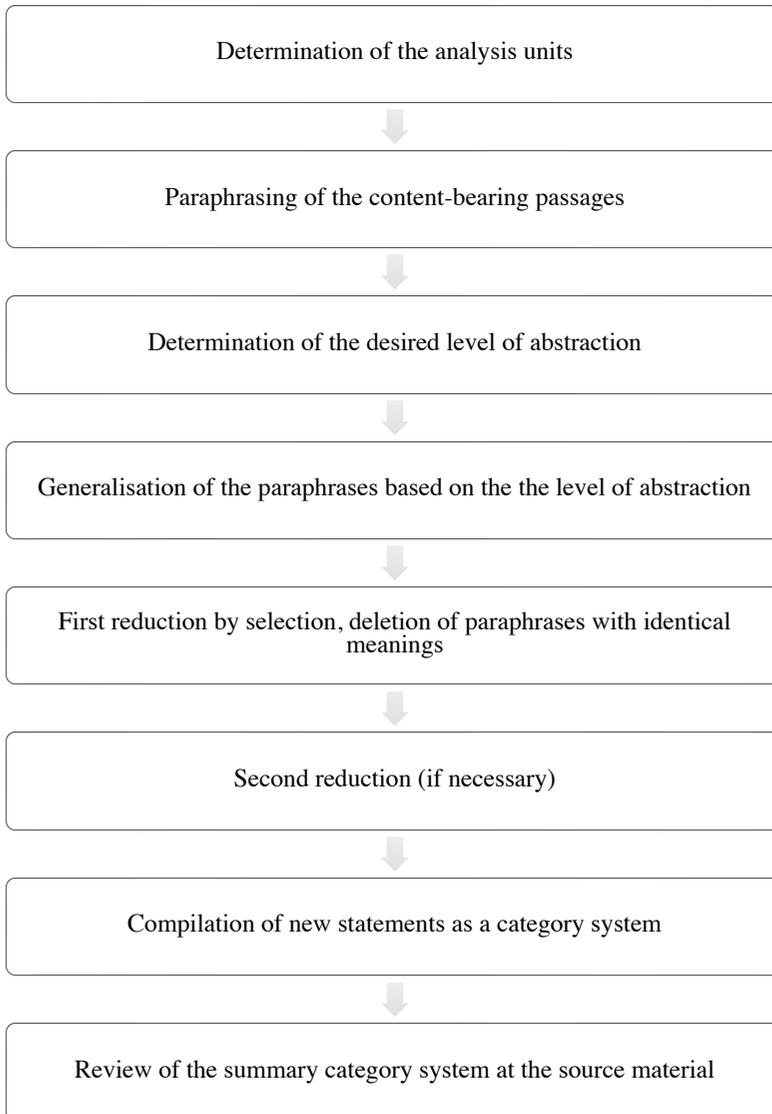


Figure 36: Sequence model of summary content analysis according to Mayring
Source: own display based on Mayring (2010:68)

The analysis of the expert interviews was completed, as previously discussed, according to the content analysis approach of Mayring (2010). In this process the relevant passages were chosen and concentrated into expressions and statements. The research questions cannot be answered directly by the experts' answers, but rather from the transfer and analysis of the answers (Scholl, 2015). The content analysis approach of Mayring was adapted here (Scholl, 2015). A transcription in the original language was prepared for every interview (see Appendix A14), and the lines were numbered consecutively (Liebold and Trinczek, 2009). The type of content analysis used here aimed to "reduce the material in a way that substantial content can be revealed, to create a manageable corpus through abstraction, which still is a copy of the basis material" (Mayring, 2003:58). Every passage was analysed for relevant information. Several extraction

rules were formulated: multiple useful passages (for different research questions and objectives) were sorted a number of times; when content was identical in the generalisation as well as reduction columns, content was only listed in the latter. This allowed for the generalization and translation (if necessary) of the individual statements in the evaluation table of the specific interview passages (see Appendix A15). Double entries and redundancies were deleted as well (Lauth, Pickel und Pickel, 2015). The interviews were compared and contrasted for agreement, dissent and distinctive features in order to identify key similarities and differences (Flick, 2011). For further analysis, the summarised and condensed content from the interviews was used. Appendix A15 shows this content in accordance with the sub-questions and objectives.

The handling of potential problems in the analysis was also recorded; only a few unclear parts of sentences and minute/line numbers without influence on the total content were marked. When sorting the interview statements within the system of research questions and objectives, further sub-issues were developed. The reduced statements from the right column in the analysis tables of the interviews were transferred to the summary of results, taking the three empirical data collection methods into consideration, for the following total interpretation (see Appendix A15). The computer-based method of evaluation was excluded, as the efforts and installation of the necessary software for this small random sample would have been out of scale and too complex.

Due to the listed benefits, this form of analysis seemed to be the most appropriate for the expert interviews. In addition to the experts' assessments, they also provided their opinions on barriers and drivers for the usage of sustainable principles in event management, completed from explanatory statements. The qualitative analysis strives for the identification of regularities and deviations in these statements. The process of this analysis is displayed in Figure 37. This is used for the qualitative analysis of the online Delphi.

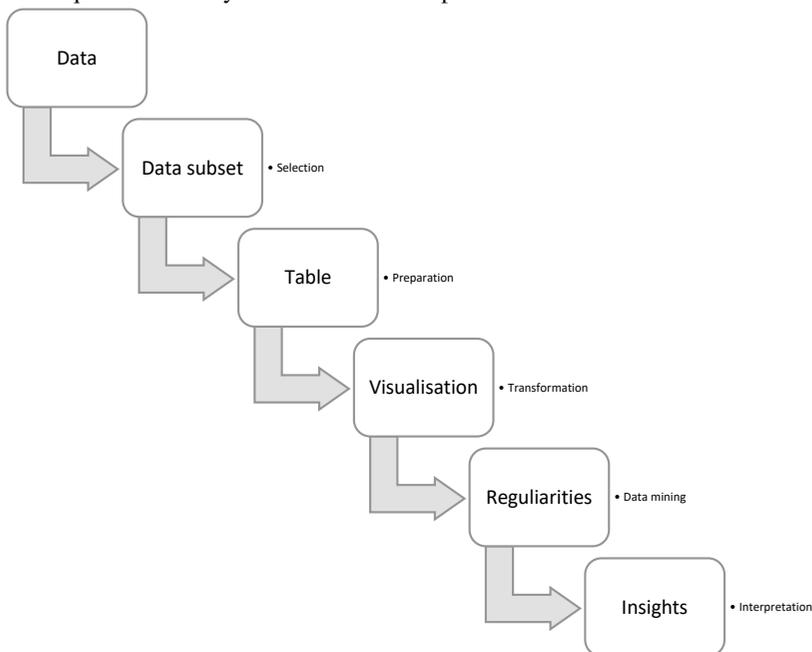


Figure 37: Flow chart for qualitative analysis

Source: own display after Kuckartz, 2010:193

Finally, due to the high number of surveys completed during the association event in Westermohe, the statistical programme SPSS was used to analyse these responses.

4.12 Summary and conclusions of Chapter 4

The answering of the research question of this study, the development of an implementation and measurement model for sustainable association event management, cannot be seen as a generalisation, but they do provide guiding insights which can and must be adapted individually to each event and client, company or association.

For answering the research questions, aims and objectives, both primary and secondary sources were used as described in the paragraphs above.

The first part discussed definitions of the topic. The second part involved primary data gained through expert interviews. These results were compared to gain deeper insight into this topic, the knowledge on sustainable event management, and the status quo in Germany. This should help to answer the research question. The interpretation of the results in Chapter 5 should serve to support the overall aim of the dissertation.

5 Empirical results

The preceding chapter illustrated the research methodology of this study. We have seen some limitations, but also the reasons why these research methods were chosen. The following chapter will present the empirical results.

5.1 Presentation of empirical results – experts

Here we will present the results of the empirical studies and critically discuss the findings in comparison to the literature. This approach serves to identify solutions and recommended actions for the problem formulated in Chapter 1. These will be explained in detail in the following.

The semi-structured expert interview is based on this theoretical basis so that the results allow inferences to theory, but also based on the aims and objectives of the dissertation in order to reveal the status quo of sustainability management in the German meetings and events industry. The survey is based on this theoretical basis as well, so that these results also allow inferences to theory. The target group for this empirical study are event participants of an association event, which means that the results reflect only their personal attitudes, readiness to act and desired behaviour.

The empirical study covers the following issues:

Research Question 1

- To discuss the terminology and literature of sustainability and corporate social responsibility in the context of meetings and events management in the German meetings and events industry.

Research Question 2

- To examine the status quo of acceptance, implementation and implications of sustainable event management in the meetings and events industry.

Research Question 3

- To identify organisations' objectives (motivations / drivers) for sustainable event management approaches (to close the gap between consciousness and behaviour).

Research Question 4

- To determine the factors associated with effectiveness criteria (i.e. indicators) for sustainable event management.

These research objectives will help to fulfil the aim of this study, which is to use the findings in order to re-define and develop a sustainability model to facilitate the implementation and optimisation of sustainability in the meetings management process holistically. The effectiveness of the combination of approaches and behaviour-oriented forms of intervention such as handling offers, incentives and perceived consequences will be highlighted. Finally, the results will form the basis for deriving actionable recommendations. Measures should be able to be planned for specific target groups and incorporate the three sustainability pillars in order to achieve the highest possible acceptance of these measures. These measures will be flanked by the creation of a target oriented, persuasive communication strategy.

The raw material is generated through Mayring's qualitative content analysis (applied to the expert interviews) and managed with the statistical programme SPSS (Statistical Package for

the Social Sciences) (compare raw material, questionnaires from the DPSG in Appendix A7). Mayring's content analysis can be found in Appendix A15 as well as all other empirical results (Appendices A11 and A12). The results described below are of descriptive and explorative nature. The figures are charts of the researcher's own design, based on the data collected during this study.

Analogously to the literature review, the empirical part of the dissertation will start with identifying the answer to the first research question, i.e. the discussion of the understanding of sustainability in the meetings and events industry.

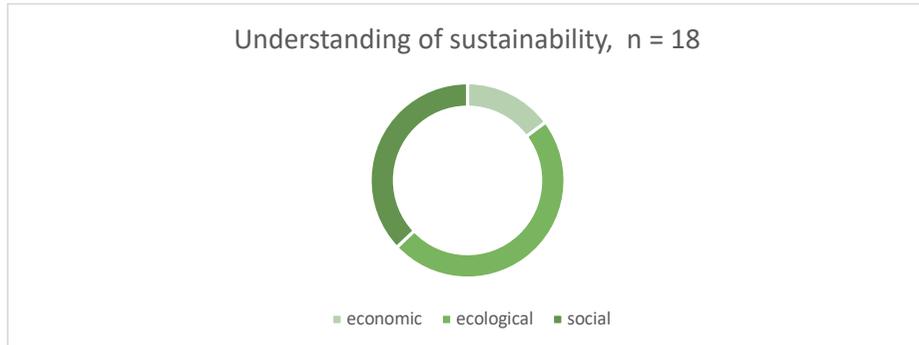


Figure 38: Understanding of sustainability (expert interviews)

Is there a holistic understanding of sustainability among the experts based on the *three pillars model*? Based on the literature review, we could anticipate a one-dimensional understanding focused primarily on environmental issues. While most interviewees underlined the importance of environmental protection, the majority actually highlighted the necessity of thinking in terms of the future and inter-generational justice. Accordingly, it is remarkable that most of the interviewees connect sustainability to inter-generational justice (seven), although social justice (ten) received less support as compared to environmental protection (13; only four for economic). This leads to the assumption that the respondents are not fully able to define the term “social justice” correctly. Consequently, the correct understanding of the single pillars will be evaluated more closely in the following. These results also lead to the assumption that there is not only demand for clear terminology and understanding in terms of the three dimensions of sustainability, but also regarding the different fields of action which make up a holistic and three-dimensional understanding of the concept.

When it comes to the empirical results of the Delphi study, where multiple answers distilled from the expert interviews were suggested, “responsible actions” and, again, “thinking of future generations” were chosen by the majority of the experts (for each option “fully applies” was selected twelve times). In contrast, “technical innovations” (five) and the “protection of existing and the development of new jobs” (three) are seen as “applies rather not”. This also applies to “economic stability”, which was chosen by each interviewee as “applies not at all” and “fully applies”, three experts considered it as “applies rather not”, but twelve of them marked it as “rather applies”. Thus in their combined understanding of sustainability through the lenses of environmental protection and inter-generational justice, an unanticipated holistic understanding of sustainability was found within this panel. Most studies in the literature review showed that few people connect a social component to the term “sustainability”. The respondents here primarily connect it to ecological aspects, as was to be expected. Economic aspects, however, have been neglected.

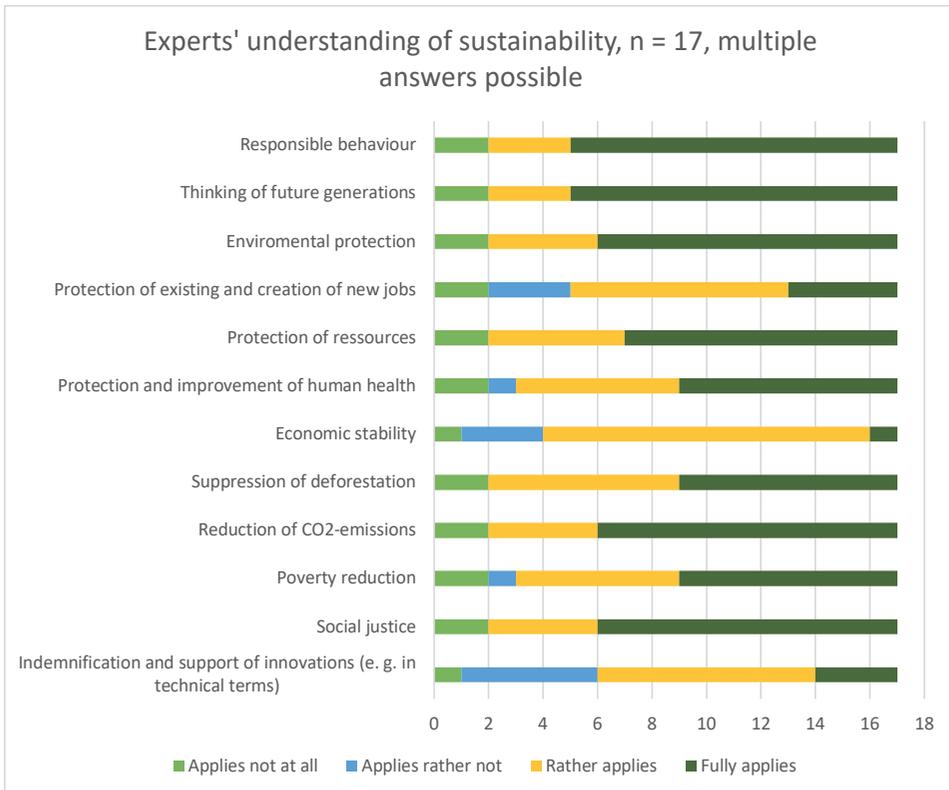


Figure 39: Understanding of sustainability (online Delphi)

Measured by the general topics, four of the expert respondents list economic, seven social and 13 ecological aspects, which leads again to the assumption that a primarily one-dimensional understanding. Only three out of 18 mentioned all three aspects of sustainability here, leading to the assumption that a holistic understanding does not exist. This supports the notion that there is not only the need for clarity in terms of the three-dimensionality of sustainability and sustainable event management, but also in terms of the different fields of action that account for that three-dimensionality.

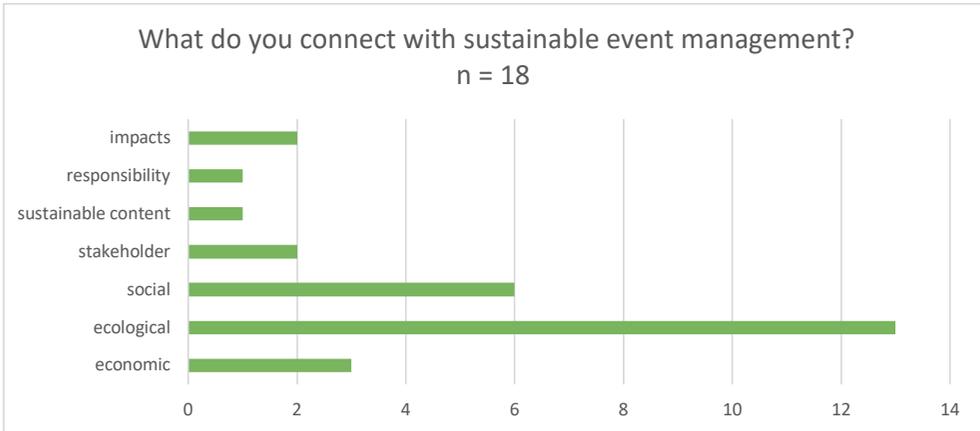


Figure 40: What do you connect with sustainable event management? (expert interview)

As introduced in Chapter 4, additional empirical data was gained from event participants during an event of the German Scout Association St. Georg (DPSG). The first question also aimed at analysing what delegates associate with the term “sustainability”.

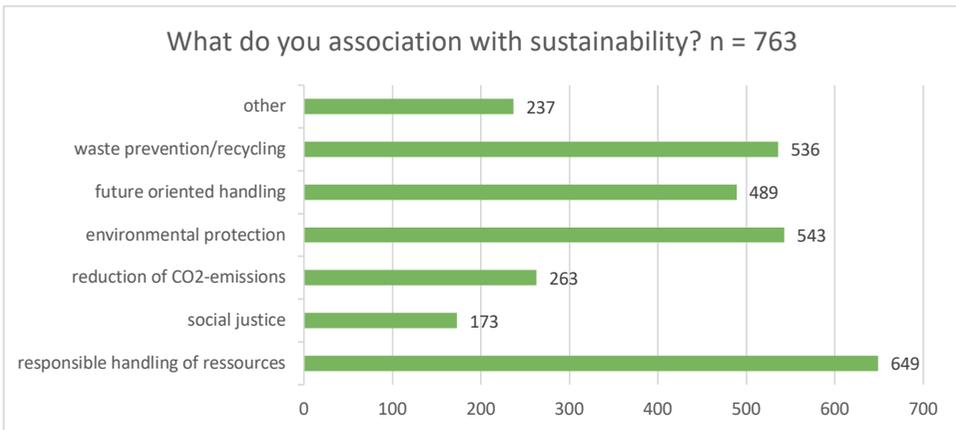


Figure 41: Associations with sustainability (DPSG Survey)

Does a holistic understanding of sustainability, one based on the *three pillars model*, exist among these survey participants? Similar to the experts’ results, the answers in *Figure 41* reflect a mostly one-dimensional understanding. Given generic options such as environmental protection, economic security and social justice, as well as options for specific fields of action, respondents mainly associate sustainability with ecological aspects and rarely with social aspects (note: multiple choices were possible). Nearly all chose the answer “responsible handling of resources” (85%), together with “reduction of garbage” and “recycling”, all of which are closely connected to resources.

The two most commonly selected answers – “responsible handling of resources” and “future-oriented handling” – underscore respondents’ awareness of the fact that sustainability and sustainable behaviour influence future development. The results reveal that many of the participants are already aware of the topic, but many lack an understanding that includes social and economic dimensions, both of which are also important components of a holistic understanding

of sustainability. A key consideration to note is that the economic dimension might suffer from a lower priority here due to the fact that an association was evaluated here, where, for example, high revenue is not necessarily the top priority. At the same time, however, sustainable buying structures can lead to not only a reduction in costs, but also healthier nutrition (organic, seasonal, regional, meat-reduced food; refer to the question where to buy for the camp, “support your local dealer”), which are compelling arguments for associations.

The understanding of the respondents of the term sustainability shall be discussed first due to its inflationary use discussed in Chapter 2. It also is seen as an indicator and shall be taken into consideration for the target-group oriented communication.

A minority of respondents mentioned all three dimensions of sustainability, resulting in the assumption that they do not possess a holistic understanding of sustainability. Notably, the majority of the respondents relate sustainability to “think of future generations”, but at the same time “social justice” received the least support as compared to “environmental protection” and “economic justice” (mentioned in “other”: working conditions, consumption habits, political rethinking, good feeling, fair-trade, philosophy, forestry, economic justice). This leads to the assumption that the interviewees cannot define the term “social justice” precisely. As shown in the secondary research, but also in the previous research among the industry experts, the association event participants also associate sustainability mainly with environmental aspects and rarely with social aspects. A clear and holistic sustainability understanding cannot be found, which might also highlight a discrepancy between the generic terminology and the related fields of action.

Based on the results of both the expert interviews and the participant survey we can assume that there is not only need for clear terminology and understanding in terms of the three-dimensionality of sustainability, but also in terms of the different fields of action which make up these three dimensions. It should be verified whether respondents who associate, for example, economic security with sustainability, also associate the protection of existing and the development of new jobs with the term as well. Social security, in return, should be associated with inter-generational justice, protection and advancement of human health and environmental protection such as combatting deforestation, reducing CO₂ emissions, and protecting oceans and rivers.

Deviating from the question of the understanding of sustainability, Question 3 of the online Delphi lists several criteria considered important in sustainable event management that were distilled from the expert interviews and asks the experts to choose the most important ones in their opinion (fully applies, rather applies, does rather not apply, does not apply at all).

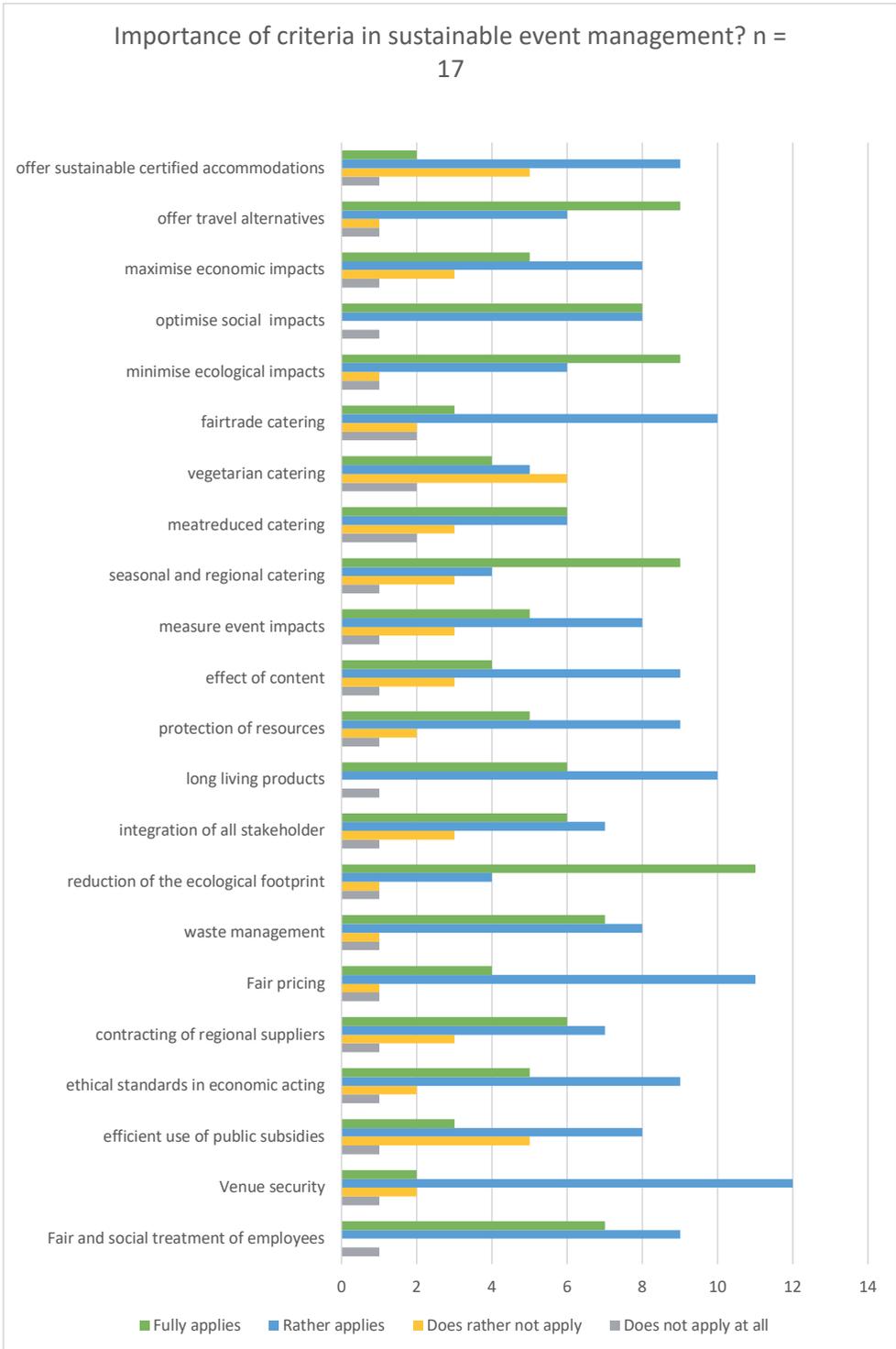


Figure 42: Importance of criteria in sustainable event management (online Delphi)

While the parameter “fully applies” is most often associated with ecological aspects (eleven votes for reduction of ecological footprint, nine for seasonal and regional catering and seven each for efficient waste handling and fair treatment of employees, the social aspect ranked highest), the parameter “rather applies” is more often connected to social aspects (twelve votes for secure operation of the venue, eleven for fair payment of employees and ten for long-term material logistics), followed only then by an ecological aspect (nine votes for minimise ecological impacts). Interestingly enough, six experts chose “does rather not apply” for “vegetarian catering”, although “seasonal and regional catering” was ranked high (nine votes) with the parameter “fully applies”. As the parameter “does not apply at all” was chosen by two experts each for all other catering criteria (organic catering, vegetarian catering and meat-reduced catering), we can assume that catering is seen as an important issue in sustainable event management, but only in terms of seasonal and regional aspects. Organic, vegetarian or even meat-reduced is not considered that important despite the fact that the literature suggests reducing the amount of meat in an event’s catering can lead to great reductions in CO₂.

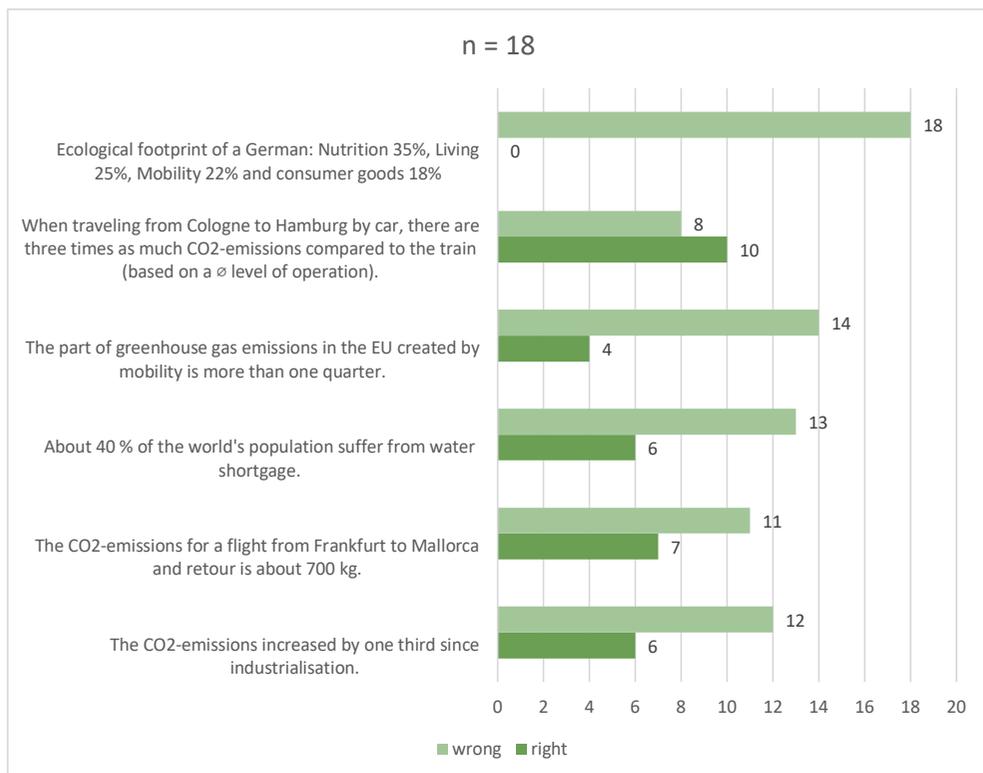


Figure 43: Number of the right or wrong chosen answers by the respondents (expert interview)

The results show that less than the half of respondents answered correctly. Only the question regarding CO₂ emissions for travelling by car from Cologne to Hamburg was answered correctly by more than the half of interviewees. Answers to the question regarding the ecological footprint of Germans were remarkably bad. (Note that this question is a ranking question (refer to Appendix A5) and not a selective question like the others, which automatically results automatically in a higher error probability.) None of the respondents put the different economic sectors into the correct order, but when considered separately, the results are slightly better.

Five respondents placed living correctly (no. 2), two each ranked nutrition (no. 1) and mobility (no. 3) correctly, and one respondent correctly answered that consumer goods make up about 18% of the ecological footprint of your average German. Most respondents anticipated living as the sector making up the largest share of the ecological footprint. This (incorrect) knowledge could be a good prerequisite for a behaviour change in this regard (for example: less heating). Admittedly, this result could also be rooted in a polarisation generated during the response process, as a major portion of questions concentrated on living (e.g. heating, recycling) which can have significant effects on event organisation.

As this section strove to find answers for the first research question (the understanding of sustainability among the experts and the event participants), we found a mainly one-dimensional understanding of sustainability which neglected the aspects of social and economic sustainability. Clear terminology is sorely needed here.

In order to examine the status quo of acceptance, implementation and implication of sustainable event management in the meetings and events industry, the following section will present the results of the second research question. A majority of experts (twelve) confirmed prior experience with sustainable event management such as organising their own sustainable events, participating in sustainable events or taking training seminars on it. Only six had no prior experience at all with the topic.

During the expert interviews, the panel was asked if their clients inquire about sustainable event management. Six answered “no” and the answers “no answer” or “not applicable” were selected once each. However, ten experts, i.e. more than the half, stated “yes”, adding that this is mainly for sustainable products such as catering and less for certificates and reports (see Figure 96, Appendix A11. Question 15, Expert Interview). This depends on the extent to which sustainability is the core business of the company, i.e. where it is the core business, regular customers expect it without asking and demand special solutions like alternative and unusual modes of transport, e.g. bike rickshaws, or suppliers offering congress bags made out of old banners.

When it comes to internal guidelines on sustainable event management within the company or association, a majority of experts (eleven) answered “no”, although a remarkable number of six answered “yes”, which is surprising given the industry’s news and the literature review. If internal guidelines exist (indicated by answering “yes” to Question 4), the next Question (5) aims to evaluate how they were developed. Here, experts whose companies have this aspect as a central business idea (sustainable event management company, sustainable event location) have sustainable event management anchored into their business plan, whereas others have intrinsic motives (inspiration from other jobs, the insight that so many delegates during so many events cause impacts) or extrinsic motives (demand of clients, peer pressure).

We see from Figure 91 (see Appendix A11) that the majority does not use checklists. The six experts who answered “yes” added that they “use these from where the certification is”, “from the BUND”, “fairpflichtet developed by the GCB” (see Chapter 3.1), or from networks where they are part of.

As Figure 92 (see Appendix A11) indicates, about three quarter of respondents do not have a sustainability certification, whereas the five who do are mostly certified by *Green Globe* (two) and/or *EMAS* (two), or use the previously mentioned guidelines from “fairpflichtet” while mentioning that this cannot be regarded as a “real certification”, which fits with the actual discussion in the literature. This variety links back to the literature review and the introduction and discussion of the different certification schemes.

Shifting focus to the Pentecost camp, when event participants were asked which sustainable certificates they know, they listed mainly certificates from their private lives such as *Blauer Engel* or *FSC* (Appendix A11, Figure 123), which was to be expected. Connected to this, Question 6 was one of the most important questions for the association DPSG, as it highlights the awareness of its own implemented guidelines, the *Green Events Guidelines*. These guidelines focus on responsible behaviour concerning the environment and how scout events can be planned more sustainably, for example by organising events closer to home, using less paper during conferences, or offering hybrid events where possible (DPSG, 2014). As many leaders participated in the survey, the perspective here shifted from those of private persons (shopping fair trade certificates) to one of “event organisers”.

Only 115 persons had ever heard about the *Green Events Guidelines* despite the online marketing surrounding its publication (DPSG, 2016) and its online availability (Figure 124, “do you know the guidelines”, see Appendix A11). In contrast, 633 had not heard of them and 15 gave no indication at all. This shows that few scouts have implemented the guidelines in their daily association work and/or event planning. Here, the association’s internal communication could be improved. The majority of positive respondents, 91 persons, partially agreed that the guidelines were used effectively on-site, whereas 26 persons agreed and 15 disagreed. As only 136 persons answered this question in total, the results might be considered relatively positive (Figure 125, see Appendix A11). If answered “yes”, the participants might have already seen sustainable measures on the campsite, as the questionnaire did not mention any content of the guidelines yet. On the other hand, the question did not reveal any details, but asked only for a general assessment.

In contrast to the previous questions, where no mean value was offered specifically, Question 6.1 allows for this answer. Applying single aspects of the guidelines does not mean that all groups did that. It might be that the group of respondents did not apply or even know about the guidelines at all, but they did recognise sustainable measures implemented by other groups or the event committee. However, one-third stated that they used hints from the guidelines during their event planning, whereas two-thirds did not make use of it (Figure 126, Appendix A11).

The next question for the experts is based on the preceding one and asks for the reasons for or against certification. Trustworthiness and credibility, in terms of “do what you preach” is a common argument for certification, whereas a cost-benefit analysis is the most common argument against it. The expenditure in terms of times and costs are also seen as a barrier. A minority also note the benefit or interest from customers, which is definitely an issue according to actual request for proposals (RFP).

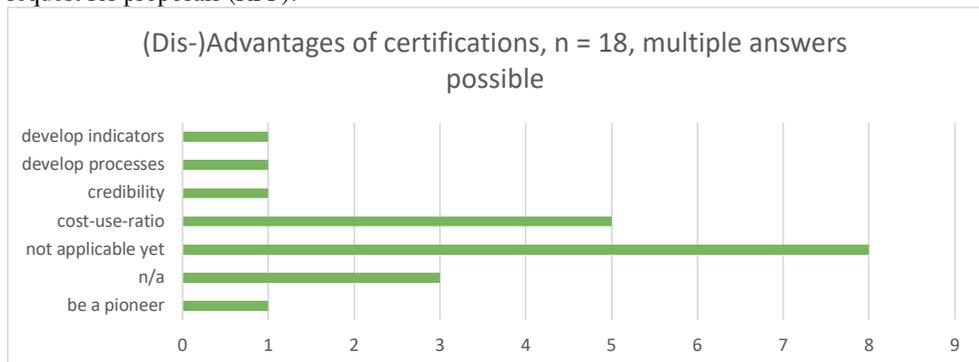


Figure 44: Advantages and disadvantages of certifications (expert interview)

As sustainable event management criteria are often integrated into a central management system, Question 9 (see Appendix A11, Figure 94) evaluates whether one is used and reasons for or against it. As three of the experts did not answer this question during the interview and ten do not have a management system in use (mainly due to budget reasons), only the answers and arguments of three experts will be explored in the following. According to these responses, a management system with clear guidelines and structures is extremely helpful, especially when working on a certification such as *EMAS* or *Green Globe*. The GCB confirms high demand for sustainable event management in their yearly *Meeting and Event Barometer*, with more than 50% of international meeting planners preferring suppliers with a management system. As a result, the number of sustainable event offers has grown consistently and nearly 40% of German locations already have a sustainability management system in place. Two respondents who confirmed they have a certification in place also use a management system, while the third respondent uses a management system without a focus on sustainability.

When it comes to the certification of single events, we found that few experts had personal experiences in this area (Appendix A11). Two respondents stated that this is not applicable and twelve have no experience at all here. In comparison, five experts do have experiences with certifying events, ranging from “we are in the process of certifying one now”, to “CO₂-neutral labelling”, to “from the customer side in Switzerland, where the regulation from the government is much stronger.”

Following this, experts were asked if they recognise any demand for sustainable certifications from customers and, as Figure 96 (Appendix A11) shows, only two experts – as expected those who already have sustainable certifications in place (such as *EMAS* or *Green Globe*) and whose core business is sustainable event management – identified a demand for sustainable certificates among their customers. Here, customers who choose such an agency or location can be expected to have a deeper interest in credibility and trustworthiness in this area. These are the main arguments for it, although one expert distinguished between sustainable certifications for whole events and those for individual products or suppliers such as catering, pens, notepads or print materials.

When event participants were asked whether sustainability measures are considered when planning an event, for example a smaller camping event, we found respondents considered it important to acknowledge how the topic of sustainability is integrated in the DPSG’s event planning. Rovers and group leaders are primarily responsible for this task. 387 people confirmed that sustainability is taken into consideration during planning, while 262 stated that this is not the case.

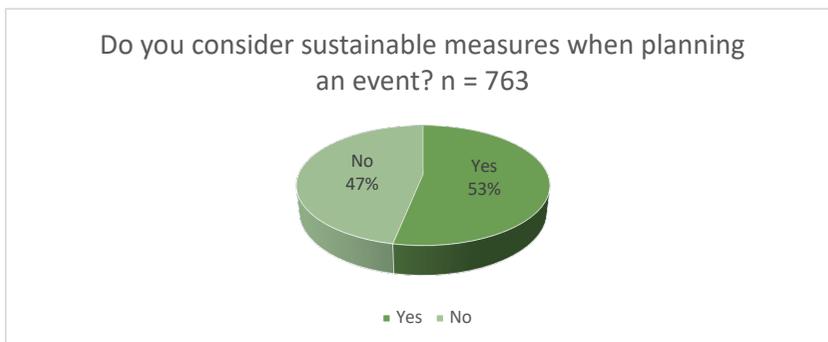


Figure 45: Sustainable event management measures (DPSG survey)

This result corroborates the fact that the internal guidelines were not known well throughout the association.

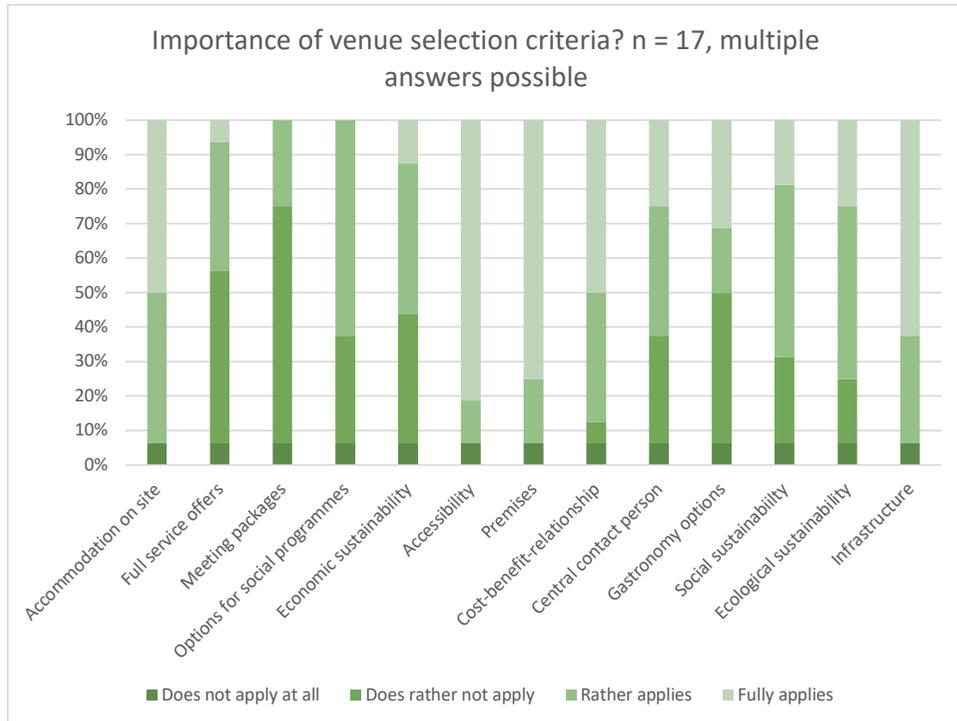


Figure 46: Importance of criteria for sustainable event locations (online Delphi)

When asked about the most importance criteria for venue selection (Figure 46), sustainability aspects were marked with “rather applies” and, in terms of social (four votes) and economic (six votes) sustainability, the majority ticked “does rather not apply.” This indicates that, although sustainable event management is seen as important, it is not considered during the venue scouting process.

This answers the second research question. We have seen that the experts and participants have fragmented knowledge of sustainability and its application to the event management industry. This indicates that the status quo can be improved upon. Consequently, the next section will attempt to identify the roots of current barriers and possible ways to inspire more sustainable event planning. In order to close the gap between consciousness and behaviour, sustainability-relevant reasons for behaviour will be identified by analysing individual approaches, behaviour patterns, values, and interviewees’ knowledge of sustainability. This approach will serve to identify the readiness for more sustainable behaviour (in the context of sustainable association events).

With regard to barriers to sustainable behaviour, the experts responded like so:



Figure 47: Identified barriers to sustainable event management (Expert Interview)

The barrier identified by most experts (eight votes) is resources, specifically cost, manpower and time. This aligns with the literature, as scholars (Holzbaur, 2016; Große-Ophoff, 2012; GCB, 2014) stated that anticipated higher costs stand in the way of more sustainable events. Those with existing experience in sustainable event management state, however, that it may actually reduce costs, for example, due to reduced meat dishes during catering, better prices from suppliers thanks to long-term business relationships, a cheaper exhibition booth due to shared use, water and energy saving measures, or reduced printing costs thanks to more online information. This fits with the next barrier identified, the lack of knowledge (seven votes), which is applicable to both supplier and buyer. One expert stated that clients who are not deeply familiar with the topic associate sustainable event management not only with higher costs, but also with increased effort and resistance from clients who are not always open to trying something new. As event management often occurs under significant pressure, there is no time for deeper research into, for example, sustainable suppliers in areas where no preferred partners are based such as a more rural area outside of the typical event cities and locations in Germany. Many respondents stated that clients and colleagues are often not sure where to start and perceive the number of guidelines, certifications and checklists as too complex and impenetrable. Combined with the previously mentioned planning pressure, event planners are unable to find, or justify, the time to do research here.

Four experts made a lack of demand from customers responsible, often arguing their industry is to blame (in this case the pharmaceutical industry). In addition, three experts identified the lack of standards as a barrier (a notable contrast to those who criticised the huge number of guidelines) and two experts each mentioned a lack of commitment and the gap between sustainable awareness and sustainable behaviour.

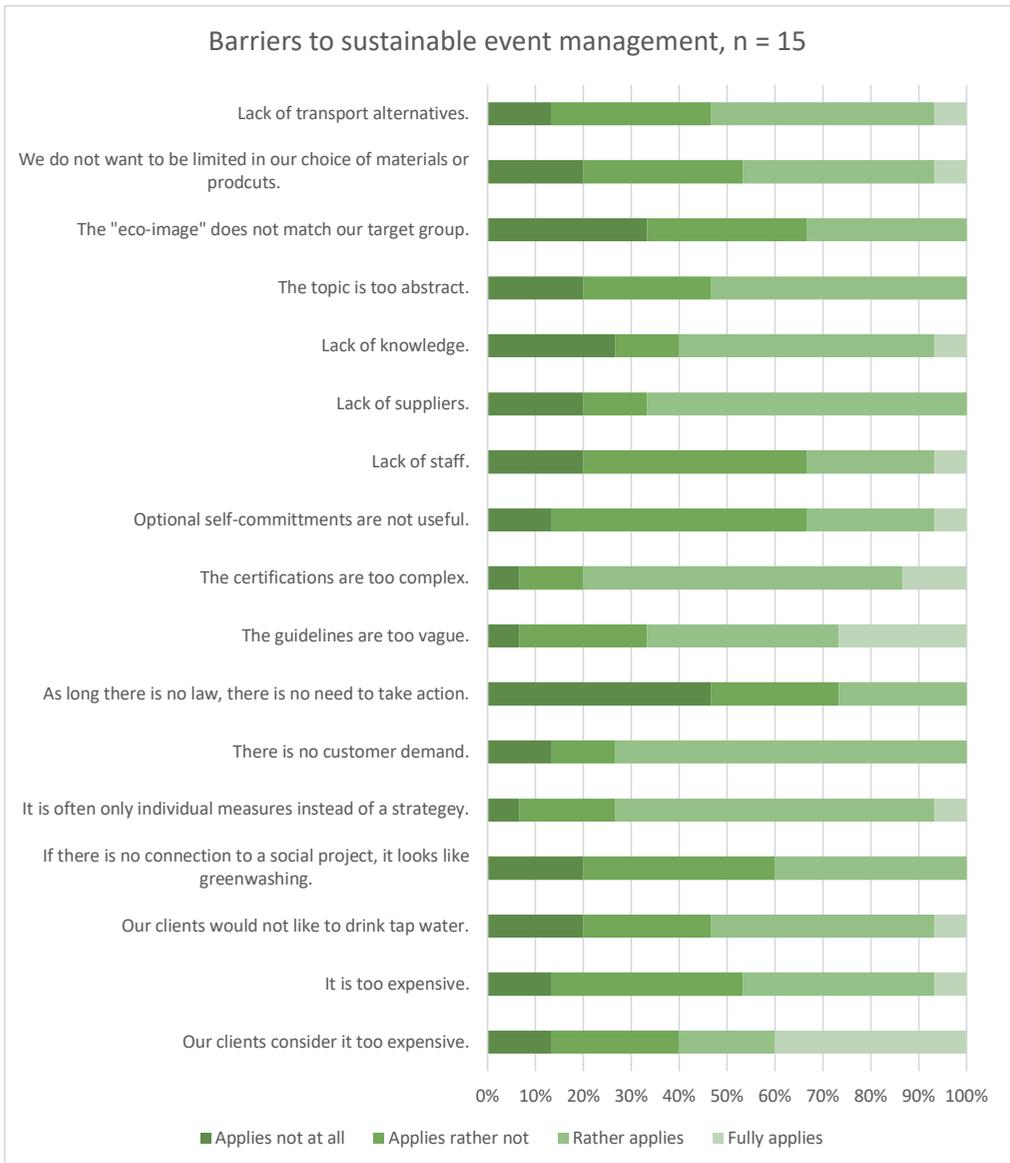


Figure 48: Barriers to sustainable event management (online Delphi)

Distilled from the expert interviews, the Delphi lists possible barriers and asks experts to rate each with “applies not at all”, “applies rather not”, “rather applies” or “fully applies”.

Congruent to the answers from the expert interviews, the barrier “our clients consider it too expensive” was rated most frequently as “fully applies”, followed by “the guidelines are too vague.” Ten experts rated “rather applies” for the answer options “it is often about single measures instead of being a strategy”, “the certifications are too complex”, and “lack of suppliers”. “Rather applies” was also chosen by eight experts for the barrier “optional self-commitments are not useful” (such as *fairpflichtet*), seven experts chose “rather applies” for “lack of staff”, and six experts each chose “rather applies” for “it is too expensive” and “if there is no

connection to a social project, it looks like greenwashing.” The last one is interesting due to the fact that, when asked for a definition of sustainability and sustainable event management (Questions 1 and 2), social aspects were only listed by few experts.

What prevents event experts from engaging in more sustainable behaviour from a social-psychological perspective? The following analysis will reveal whether the chosen six of the 28 forms of the *Dragons of Inaction* from Gifford (2011a) (see 2.1.1) can be applied to the respondents of this study (industry experts and event delegates) and, if so, which barriers are the largest.

These were given to the experts at the end of the interview, see Appendix A11.

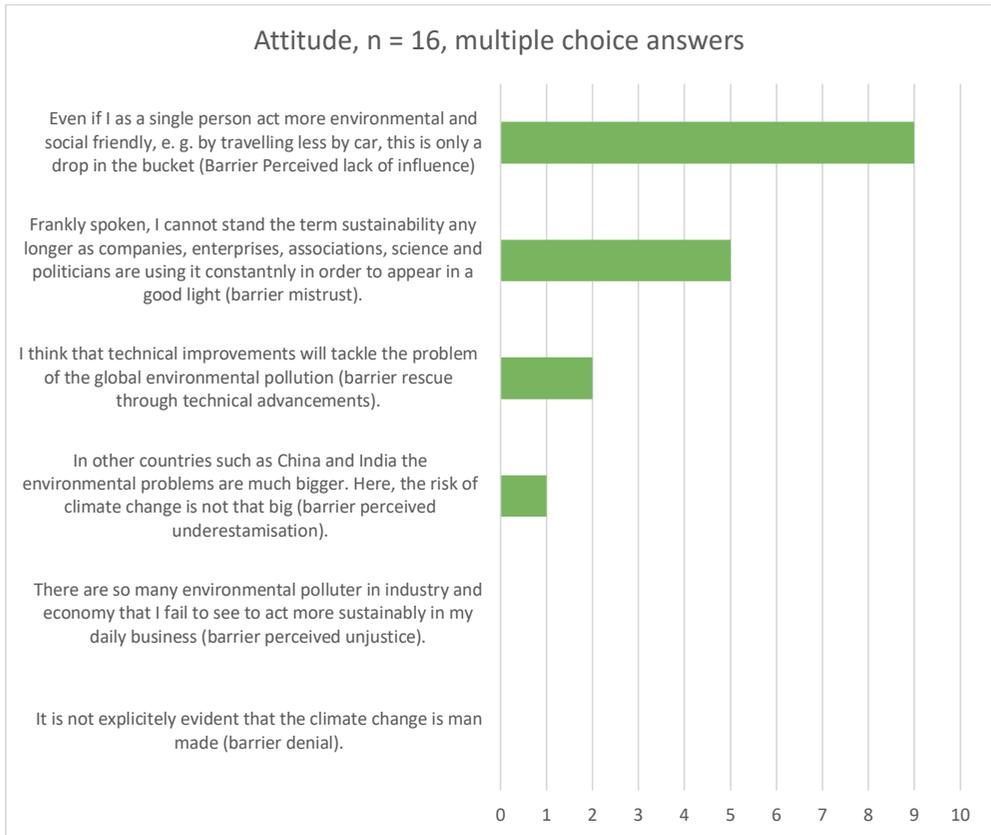


Figure 49: Attitudes towards sustainability, personal consternation / Assessment of the barriers for more sustainable behaviour with respondents (online Delphi)

Following the committed introduction of sustainability in a company or association, the next question (no. 21, see Appendix A11) deals with the question of whether there are incentives for employees to transfer sustainable measures from their business into their personal lives.

Although only six answered “yes” to this question, one expert who answered “no” stressed that they “at least create awareness, e.g. for waste separation.” Often a “job ticket” is included in the contract, which gives employees access to the local public transport system at a lower fare. One expert distinguished between “soft incentives such as exemplifying sustainability in terms

of sustainable office materials, waste separation, organic food as well as shared social sustainability such as family friendliness, flexible work-life models and flat hierarchies, whereas hard incentives are seen here as no unpaid overtime or internships.” Two other experts gave the example of devices in stand-by mode: when awareness is created in the business environment, employees also report increased awareness at home. One expert mentioned that this also works vice-versa, as one employee reported using recycled paper at home and brought this habit to the office. These examples show that the status quo is more about creating awareness than offering real incentives.

Next, the experts were asked how sustainable event management affects their company or association. Only four experts stated any effect at all, ranging from being pioneers in the industry to hoping to influence employees in their private lives and partners in their business environments (two experts). One other expert stated an increased awareness towards environmental issues and impacts, whereas the fourth respondent noted the community’s interest not only in environmental projects such as reforestation, but also in social projects such as donations for children.

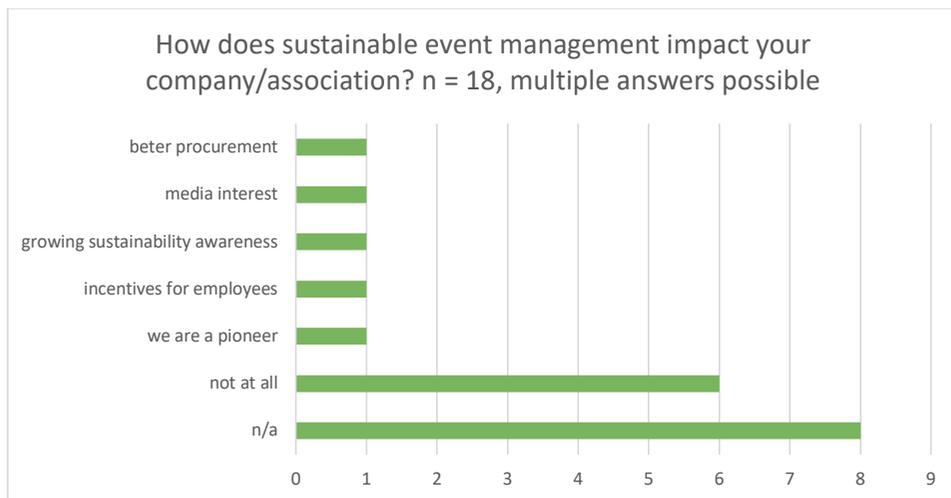


Figure 50: Impacts of sustainable event management (expert interviews)

Question 23 (Figure 101, Appendix A11) aims to reveal whether the experts observed a change in their relationship with customers and/or suppliers. Five reported changes such as the realisation that this is not only a short-term fad, but rather a trend experiencing growing commitment. When suppliers conduct a certification process themselves, the change is even more significant and it initiates a mutual learning process (two experts). Others (two experts) mentioned that suppliers were removed from preferred partner lists if they did not show readiness to change their purchasing, logistical or production processes. Two others observed at a minimum a growing awareness towards the topic.

Figure 51 shows that two of the listed barriers were not chosen at all (perceived injustice and denial), whereas two others (rescue through technical advancements and perceived underestimation) were only chosen by two respondents (ten percent). The two barriers chosen mainly are mistrust (six experts) and perceived lack of influence (nine experts). The matching statements are shown in Figure 23.

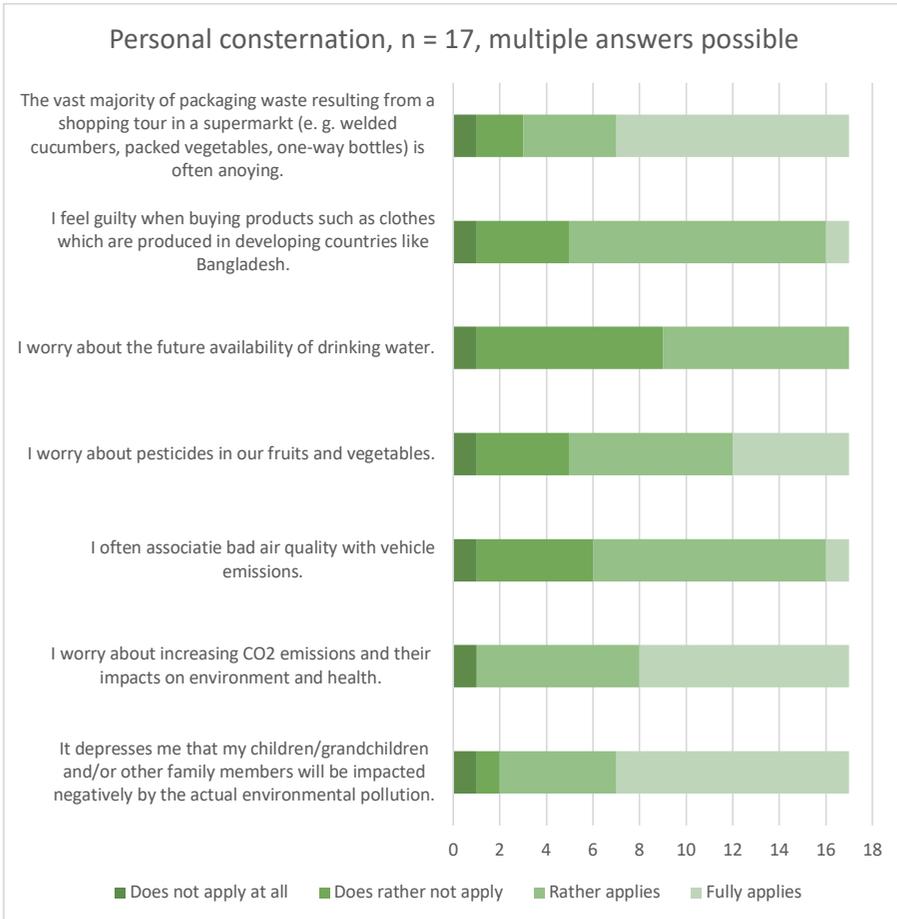


Figure 51: Personal consternation (online Delphi)

The barrier “denial” from the category lacking commitment indicates that some persons deny the existing climate change and do not recognise that their own actions influence climate change (Gifford, 2011b). The interview results show that all respondents acknowledge that climate change is mainly anthropomorphic, i.e. based in human activities such as consumption, land use, mobility and energy use. However, this consciousness does not match the results of Question 14, which enquired about the responsibility for protecting and restoring the environment:

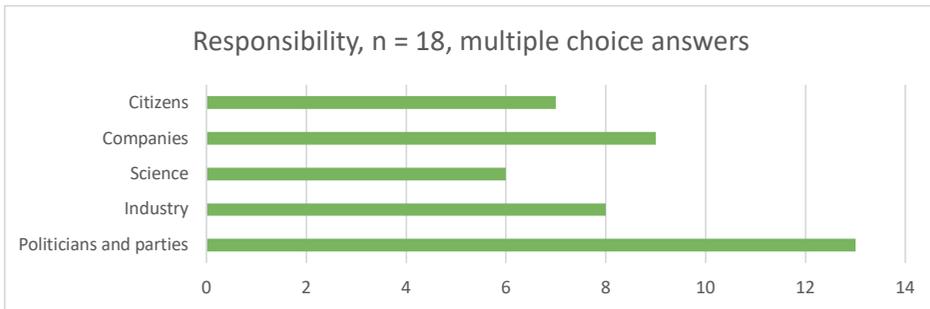


Figure 52: Responsibility towards sustainability (expert interviews)

Only seven experts chose personal responsibility “agent of change agent”), but nearly three quarters, i.e. 13 persons, stated that politicians and parties, followed by enterprises (nine persons) should take responsibility for the development of sustainability strategies (compare Figure 52).

The majority of experts (99%) do not consider local environmental problems less harmful than in other, geographically distant countries such as India or China (barrier type: biased underestimation, category: limited perception). This means that their motivation to enhance their own environment is not hindered by the assumption that environmental problems are worse elsewhere. No experts indicated a sense of injustice, i.e. that other nations, personalities or organisations are “worse environmental bad guys” than they are or Germany is (barrier type: perceived injustice, category: comparisons with others). There seems to be no reaction towards the term sustainability. According to Gifford (2011a), trust forms the basis for healthy relationships, and through existing trust there will be no persistence towards changes from scientists, politicians or enterprises (barrier type: mistrust, category: lack of commitment). This also implies that the readiness to act more sustainably should be observable in events, too.

Two of the chosen barriers were confirmed in this study as well, namely perceived lack of influence (category: limited perception) and rescue through technological advancements (category: ideology). Half of respondents sensed that their own actions, for example driving less frequently, do not have a noticeable impact, as the environmental problems are too broad and all-encompassing. One third of respondents believe that technological innovation will tackle environmental problems. Understanding is limited here, as it is not explicitly clear whether they rely solely on technology (according to Gifford’s definition) and therefore act less sustainably or if a rescue via technology is seen in combination with their own actions. If respondents are counting only on rescue through technological advancements, it stands to reason that they would rate the responsibility of scientists and experts towards sustainability rather high (compare Appendix A11). In actuality, however, only six of the 18 respondents perceive science as having any responsibility at all. A clear interpretation is thus difficult here, but the results of the barrier “rescue through technology” should not be overestimated due to its broad range of interpretations.

The attitudes of the association event participants towards sustainability were analysed in terms of five elements: personal responsibility, personal involvement, knowledge, willingness to act, and self-reported behaviour. First, the results will be highlighted separately and descriptively, then the overall attitude will be ascertained based on the measurement systems developed in Chapter 3.

The results for the measuring element “personal responsibility” were already discussed in connection to the barriers and are shown in Figure 53. Even though associations/companies were considered second-to-last in terms of having responsibility for advancing sustainability, over half of respondents believed they had a responsibility nonetheless. Multiple answers were possible here. Of the 763 survey participants, 75% believed at least one other group of persons also had a responsibility towards sustainability (extrapersonal responsibility).

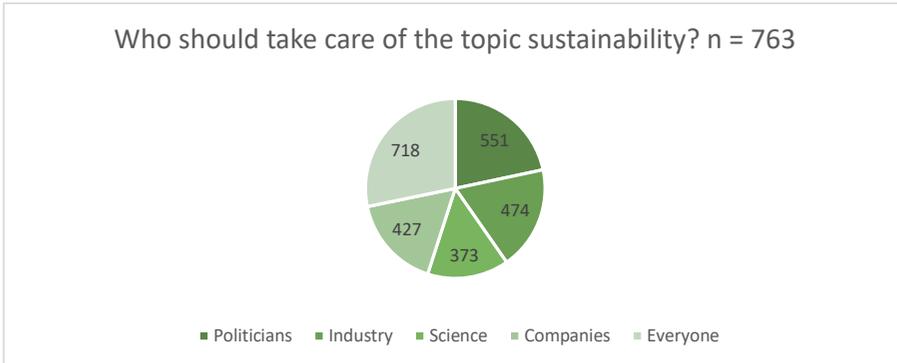


Figure 53: Responsibility (DPSG)

Most event participants ticked “every single one”, which shows that the majority considers this an issue where everyone can take action in some capacity. However, many considered politicians the most responsible (551). Science was seen as having the least responsibility.

The third question highlighted the value of sustainability in participants’ lives. No neutral option was offered on purpose in order to elicit a clear position. Most respondents (60%) acknowledged that sustainability plays a significant role in their lives. We can assume here that the members of the German Scout Association will by and large consider nature and the environment a topic of great interest, as many scouting concepts and events are rooted in the outdoors. As a result, they might be more acutely aware than others of the specific issues and problems relating to the environment not only now, but in the future, i.e. in order to ensure their hobby continues to prosper. Interestingly, respondents’ second most popular answer was that sustainability has only a low (green) significance to them. This might be a limitation due to the scale used or it may link back to the gap between sustainability consciousness and real behaviour.

After identifying possible barriers, the next question during the expert interview strove to evaluate the reason for experts’ actual interest in sustainable event management (Question 13, Appendix A11).

Whereas five respondents each mentioned here “behavioural change” and the fact that “sustainability” is seen as a “buzzword”, four mentioned “inspiration from other industries” (“from manufacturers, trade, to the service sector”), three saw it as an “industry topic” and one connected it to the current CSR debate and the connected duty to report. The behavioural change is connected to the awareness that the population is still growing very fast despite limited resources, and this growth stands in stark contrast to the number of event delegate flying around the world to attend a congress or meeting or to deliver a talk without compensation. The label “buzzword” is seen critically, too, as one expert felt that the term is not connected to the environmental scene anymore and has been transformed into a trendy topic. “Organic” and “social” are no longer only for “people with a jute bag”, instead they are hip and appeal to a broader

range of people: even some youth clothes are made by sustainable labels. Consequently, coming generations will consider sustainable events not merely a necessity, but a matter of course, comparable perhaps to the rise and establishment of social media in our daily lives. The depth of answers depends greatly on the number of personal experiences in sustainable event management, i.e. these who have had positive experiences consider it a necessity, not a trend.

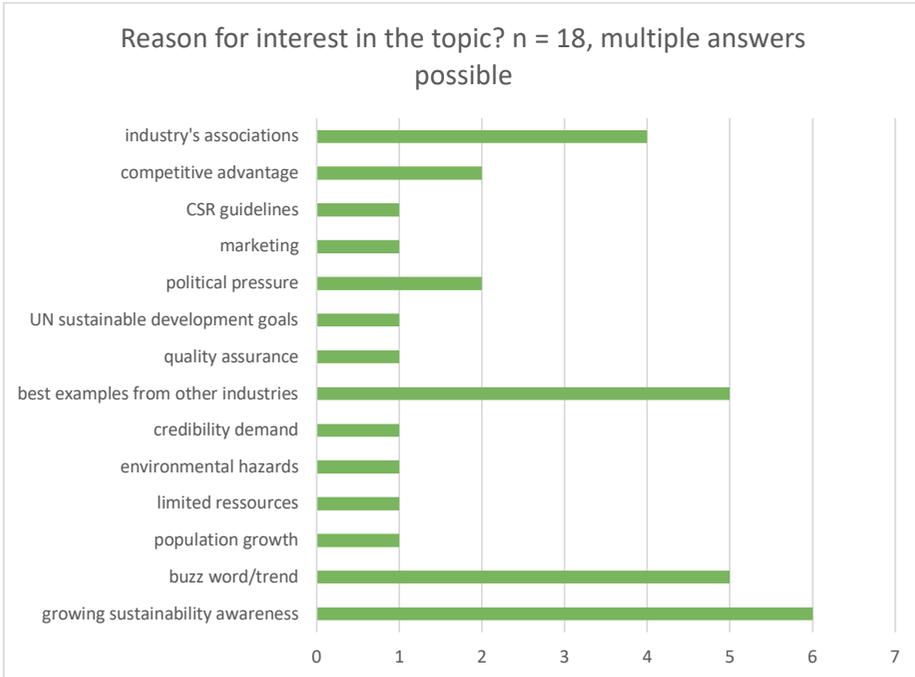


Figure 54: Reasons for interest in the topic (expert interviews)

Following this, the Delphi study listed several possible benefits distilled from the literature review and expert interviews, and asked the panel to rate them.

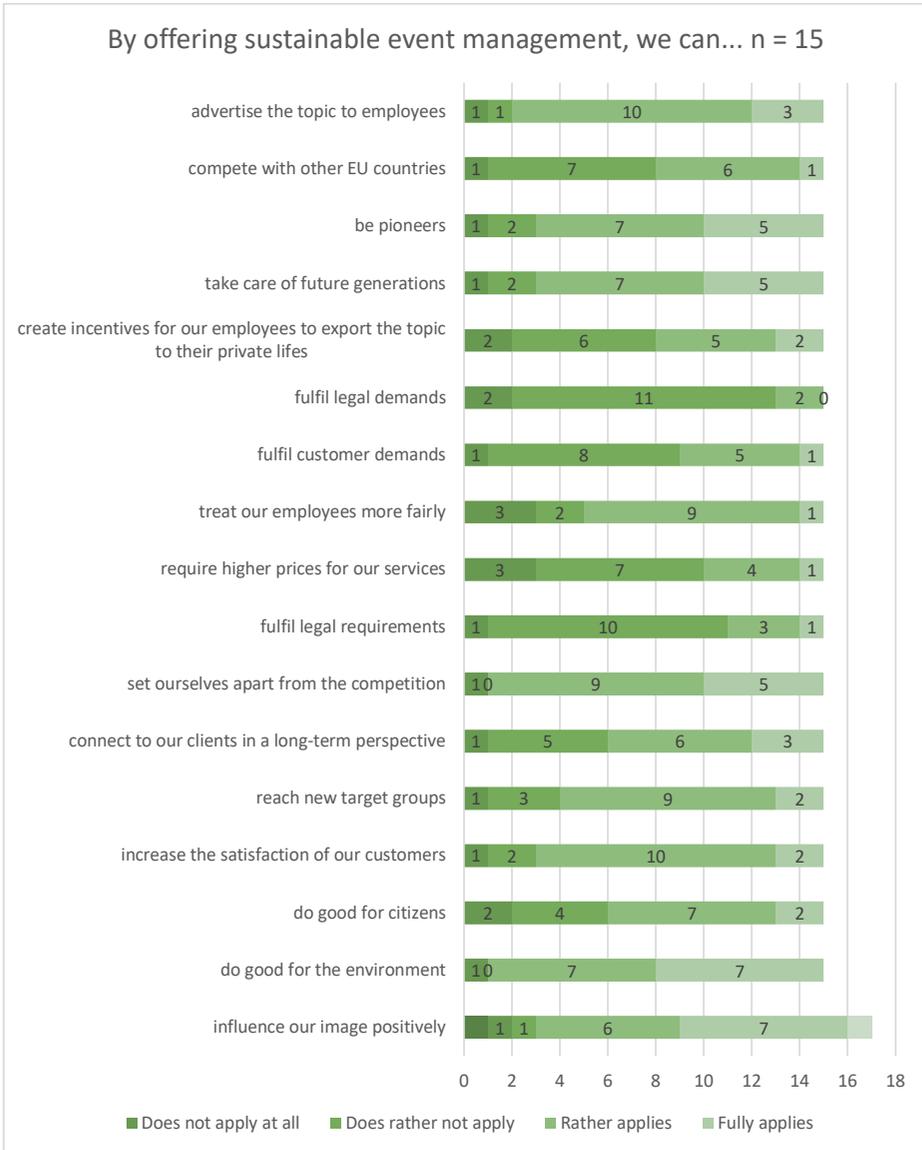


Figure 55: Benefits connected to sustainable event management (online Delphi)

“Fully applies” was chosen seven times each for the options “influence our image positively” and “do something good for the environment.” The latter matches the number of experts who focused on ecological aspects when asked for a definition of sustainable event management, whereas the former is interesting when taking the fear of greenwashing into consideration. “Increase the satisfaction for our customers” and “advertise the topic to employees/customers/suppliers/partners” were rated ten times each with “rather applies”, which is remarkable given that “lack of customer demand” was seen as one of the biggest barriers to sustainable event management. That eleven experts rate “fulfil legal demands” with “does rather not apply” fits with the previous section in which only one expert connected the newly (in 2017) introduced CSR duty to report for companies with more than 500 employees. Three experts each rated “treat our

employees more fairly” and “require higher prices for our services” with “does not apply at all”, which means the other twelve considered these to apply to their situations to some extent.

The following paragraph aims to determine respondents’ approach to sustainability according to five measurement elements: responsibility, personal consternation, knowledge, willingness to act and self-reported behaviour. First, the results of these five elements will be analysed separately and descriptively, then the overall approach will be determined based on the measurement scale developed in Chapter 3.

Figure 56 illustrates the motivation to introduce sustainable event management in the experts’ opinions:



Figure 56: Motivation to introduce sustainable event management (expert interviews)

While eight experts had no motivation to introduce sustainable event management or did not answer the question as it was not applicable, the other ten answers ranged from “we have already the duty to publish a CSR-report, therefore it is just an add-on”, to “use multiplier effects”, “to spread the word”, “to be a pioneer” (one response each); to “create awareness” and “reduce CO₂ emissions” (two each); and, finally, to following “industry trends” and for “social commitment” purposes (three each).

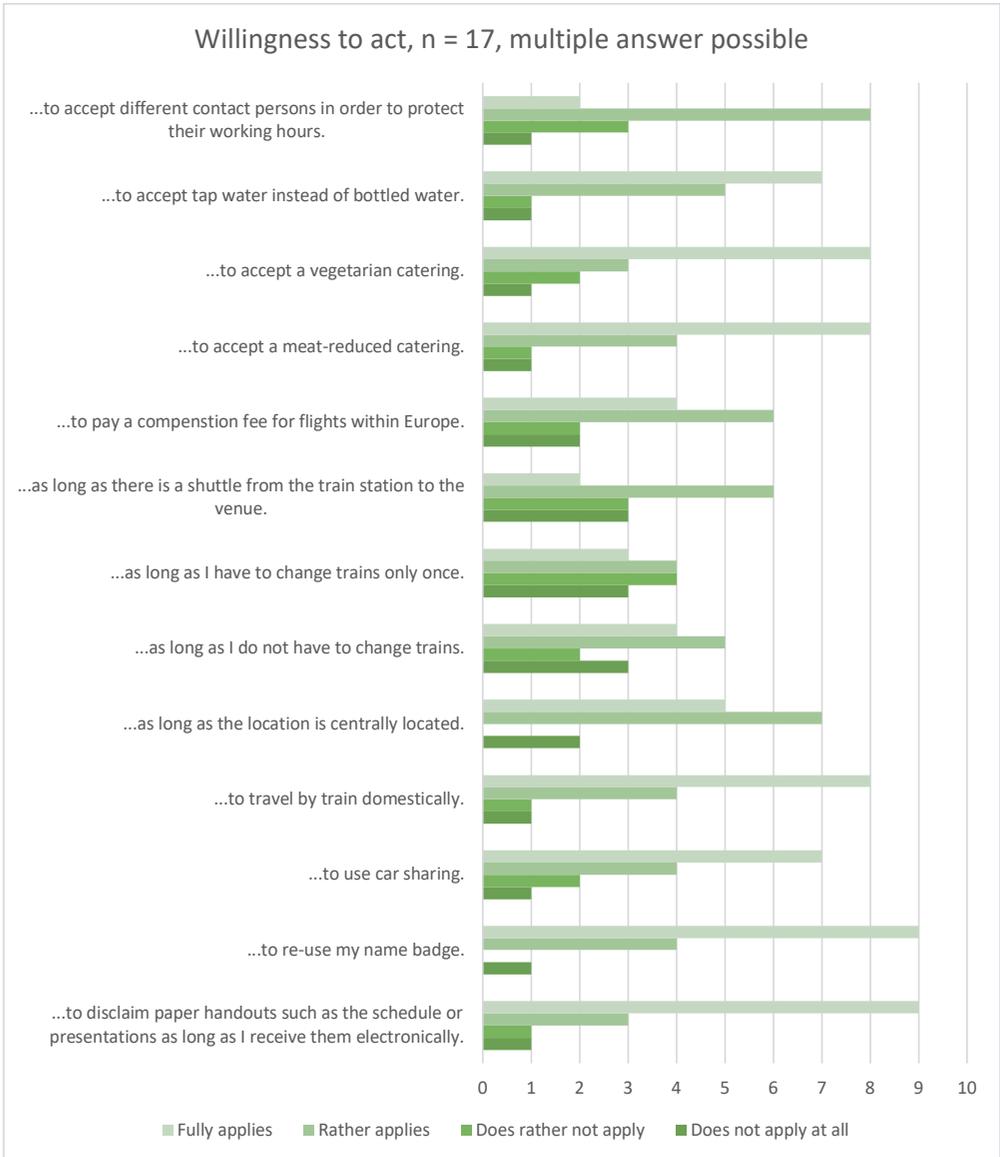


Figure 57: Willingness to act (online Delphi)

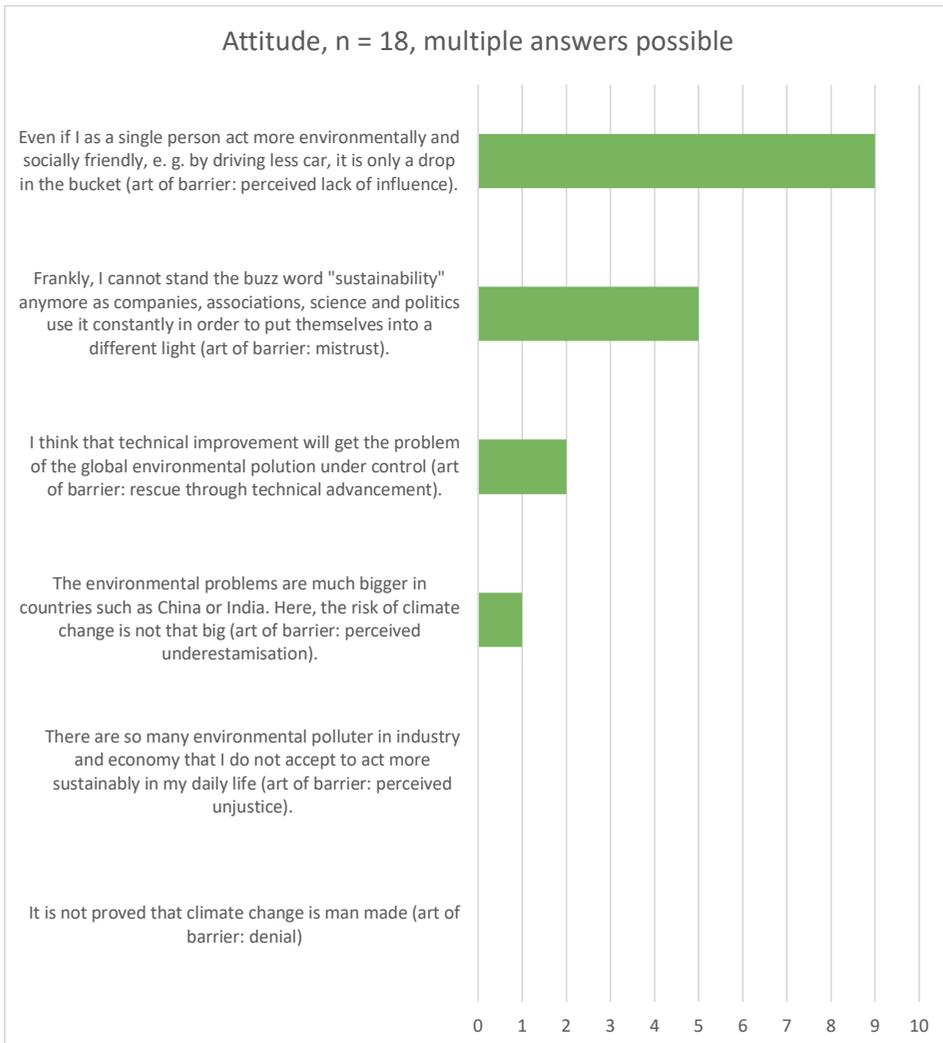


Figure 58: Attitude toward sustainability (expert interviews)

Connected to the choice of meat-reduced catering for events, the experts were asked whether they have reduced the amount of meat they consume privately, e.g. due to controversies surrounding mistreatment of livestock or negative press on slaughterhouses, animal transports and contaminated meat. Two experts abstained from this question, ten answered negatively, and six answered positively. This is connected to the personal consternation on whether the topic of sustainability, encountered in the workplace (whether industry, office, customers, events and meetings visited or organised), is being transferred to private lives as well. It is also interesting in terms of the behavioural gap (“customers demand it”, “we are offering it”), but this type of view is not always shared privately. Here, both internal and external communication is essential for motivating employees to change their behaviour.

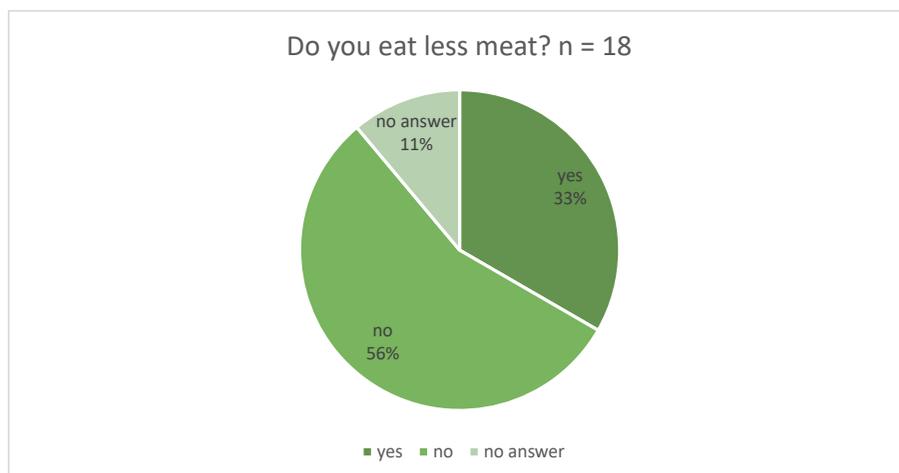


Figure 59: Meat consumption (expert interviews)

The scouts, when asked if they are willing to reduce their meat consumption, give a much more mixed picture (Figure 131, Appendix A11). 303 stated they would accept vegetarian meals during the events, 399 a meat-reduced option and 93 stated they are would not be willing to change their meals at all.

Both groups were asked about their sustainable behaviour in terms of meat, food purchases, use of energy devices etc. (see Appendix A11). What we found is that the experts in general are aware of their footprint, they separate their rubbish (Figure 104, Appendix A11), they try to conserve water (Figure 107) and paper (Figure 108), and they use energy-efficient devices. Interestingly, the majority of scouts answered “high” or “very high” when asked about the significance of sustainability in their daily lives (Figure 123). This might be due to the fact that the members of a scouting association may generally show greater interest in environmental and social topics; we will discover in the next sections how this high interest is transferred to their camp lives and scouting events.

Question 4 of the scout association survey looked at how sustainable measures are integrated in their daily lives. This also reflects the level of significance and, as done in the previous question, no neutral option was provided in order to reveal participants’ true tendencies. We found that, in order to reduce CO₂ emissions and other greenhouse gases, the use of car pools and lifts is effective. However, this might not be motivated solely by sustainability, but also price, as this is often a cheaper mobility option. 62% stated that they often or always recycle paper and conserve water or energy in their daily lives. Buying organic food was also chosen often (347 respondents), which represents a significant amount given that many younger persons were among the respondents and they likely have less money available or are not responsible for shopping at home.

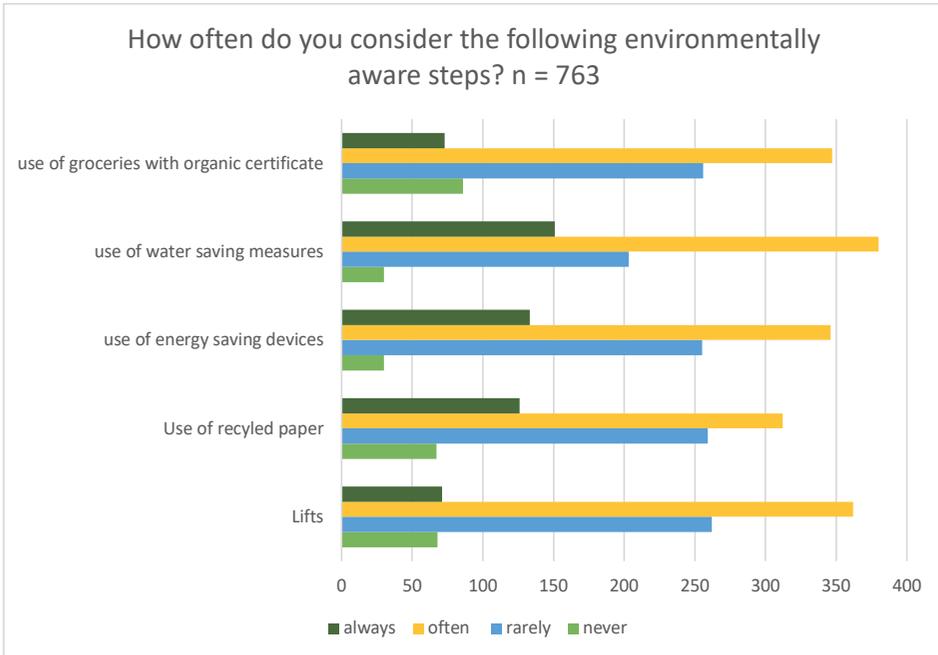


Figure 60: Environmentally aware steps (DPSG)

The next question examined scouts' general readiness to include sustainable measures in their daily lives to support environmental protection measures. Forty-nine responded that they would not change their daily lives, whereas 135 of respondents who know the content of the *Green Events Guidelines* stated they would do exactly that. It was possible to choose more than one answer for this question (7.1). Nutrition and catering as well as energy and climate were chosen by 86 respondents each. This is followed by communication and education (53) and venue and mobility (51).

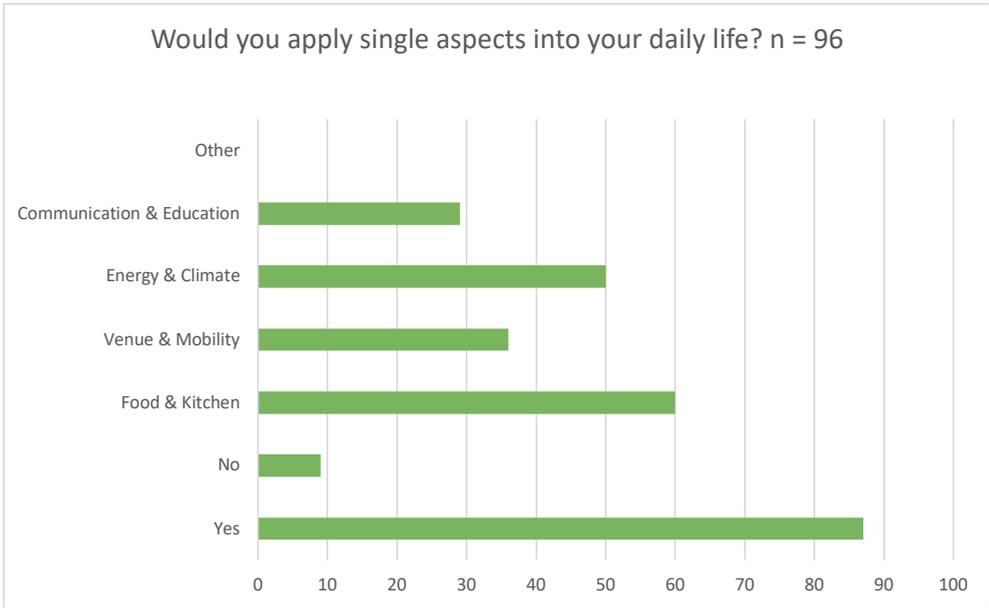


Figure 61: Sustainability in daily lives (DPSG)

The results of Question 7 (Figure 61) show that they prefer measures which can be integrated more easily in their daily lives. The result of the communication column shows that not many are ready to abstain from their social media apps. Also, fewer people were ready to change their preferred mode of transport. It can be difficult in daily business to skip a private car, as alternative transportation depends greatly on the weather (when using a bike, for example) or on the reliability (or even existence in certain rural areas) of public transport options.

Participants were asked to list feedback or their own suggestions for future versions of the *Green Events Guidelines*. Both groups, those who knew the guidelines previously and also who did not, submitted suggestions for improvement (Question 8; Figure 136, Appendix A11). One of the main suggestions was to promote more aware of the guidelines, as only 115 respondents out of 730 knew them previously. Additional recommendations included integrating the guidelines into planning processes, integrating them more playfully in education for the youngest scouts, the *Wölflinge*, i.e. in cleaning up the areas where they hold scouting events or hang out with their friends. Moreover, respondents noted a demand for more in-depth explanations of the guidelines, their aims and how to achieve them. This connects back to the target group-oriented communication.

The next section analysed the mode of transport. The most commonly used form of transport for arrivals was looked at first. This revealed the general awareness of scouts towards the different forms of transport. If they answered “car”, the question further asked how many persons were in the car, i.e. were there any free seats. The majority, 68%, arrived by car, but stated that on average five persons shared the vehicle. We did not enquire about the type of vehicle (i.e. size / number of seats). 24% of respondents arrived by bus, 5% by train, 1% by bike and 2% by “other” forms of transportation (Figure 131, Appendix A11). It should be noted that public transport in this rural area is very limited, making it quite difficult to arrive by train, for example.

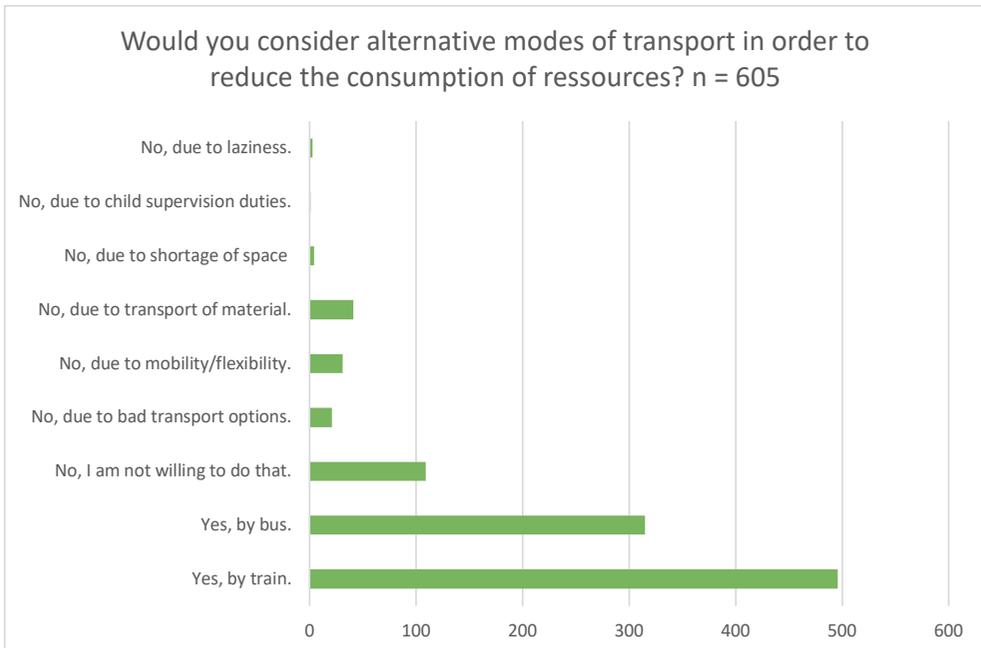


Figure 62: Alternative forms of transport (DPSG)

When it comes to the readiness to consider alternative modes of transport in order to reduce the consumption of resources we see that, despite the poor public transport connections mentioned above, the vast majority (81%) would be willing to take the train. Thus we can assume that only a little nudge here would be necessary to transform this readiness into action (possibilities: better communication of train departures and arrivals on the DPSG homepage, group arrangements, shuttle buses from the train station to camp [if not for people then at least for luggage]). The second largest group would be willing to travel by bus, which offers an easy option for group leaders and organisers as well. Those who answered negatively did so for various reasons, whether due to poor “transport options”, “flexibility”, “transport of material”, “shortage of space”, “child supervision duties” or even “laziness”.

This shows that a large portion of event participants, 88% to be exact, were ready and willing to choose a more sustainable form of transport, although this might require more complex planning and a fixed schedule.

Figure 128 revealed the distance travelled to the Pentecost camp. It became clear in the discussions with the respondents that Question 10 was seen as strongly connected to the travel distance which was analysed in Question 11. Few respondents were from the area and few had travelled more than 350 km to reach the camp. The majority (67%) had travelled between 50 and 250 km. Costs for alternative (non-car) travel options depended on the distance and connections. Other reasons for travelling by car were the very limited public transport connections to Westernohe, but also the logistics of luggage transportation (including tents, sleeping bags, benches, food, drinks etc.).

The preceding question aimed at evaluating the willingness of delegates to commit to more sustainable behaviour and could also be applied to future events in order to reveal not only sustainability awareness, but also the resulting sustainable behaviour.

The catering section served to identify support for local shops. A majority (68%) answered that they bought all their food and drinks in their home towns before departure (Figure 129, Appendix A11), while the rest arranged their shopping in Westernhohe and surrounding areas. Note that buying food at home increases the (environmental) costs for transport as well as CO₂ emissions.

In response to Question 13 “How do you prepare your food on site?” (Figure 130, Appendix A11) 239 respondents revealed that their food is prepared conventionally and includes meat, but of organic origin, though the majority, 446, answered that prepared conventional, non-organic food options. 222 said their food was vegetarian and 27 vegan. These answers might be motivated by the fact that the most important factor for such a camp is price and not organic production or fair-trade certification. However, this has significant potential for leverage, as the group leaders responsible for shopping can influence younger groups such as *Wölflinge* and pathfinders to adopt similar purchasing behaviour.

Question 15 served to highlight how food waste was handled (Figure 132, Appendix A11). We found that 181 respondents dispose of food waste directly, while 81 dispose of it in “other” ways (e.g. distribution among group members, composting, donations, giving to animals, sharing or exchanging with others). The vast majority (81%) answered that remaining food will be prepared and eaten later.

In order to cover more aspects of sustainability, Question 16 aimed to identify the level of inclusion of physically, psychologically or socially handicapped participants (Figure 133, Appendix A11). Of the 625 event participants who answered this question, 580 responded “yes”, whereas the 107 respondents who answered “no” gave several reasons, for example integration problems, lack of competence of group leaders, or public places which are not easily accessible.

Question 17 (Appendix A11) served to reveal how many electronic devices were used in Westernhohe during the Pentecost camp and which ones were used the most. It should be noted that for on-site campers no electricity was available in the tents. Nearly everyone (629) carried a mobile phone, only 30 a laptop or tablet, and 129 responded “other”, which mostly meant portable loudspeakers. This averages out to four devices per person. In discussions with participants, we learned that electronic devices such as loudspeakers or tablets were often used for group games on site.

To conclude we found that most respondents felt politicians, parties and enterprises carried the greatest responsibility for sustainability. On average, each interviewee chose 2.4 answers. Out of the 18 respondents who judged themselves to be problem-solvers (intrapersonal responsibility), seven interviewees attribute responsibility to at least one other group (extrapersonal responsibility). Details of the perceived distribution of intra- and extrapersonal responsibility is shown in Table 34 (n = 18).

Number of chosen groups	Intra- + extrapersonal responsibility	Only intrapersonal responsibility	Only extrapersonal responsibility
5	6		
4	0		
3	2		
2	14		
1		11	
1			7
2			0
3			2
4			0

Table 34: Values of the perceived intra- and extrapersonal responsibility of interviewees

Solely extrapersonal responsibility (“to advance the problem”) was evident only in a minority of interviewees, whereas a solely intrapersonal responsibility was found with eleven panel members. Six persons felt responsibility lies with all suggested groups: oneself, politicians and parties, industry, enterprises, science and experts.

After having determined the different origins of attitudes, the strength of attitudes according to the measurement scale of Spada (Ecology Scale, compare Table 16 and Figure 63) must be determined: is there a narrow, middle or wide sustainability consciousness? Because of the relatively strong *readiness to act* and the relatively weak *knowledge*, the results cannot be clearly attributed to the default scope of meaning. Therefore, the scope of meaning must be re-defined based on the results of the empirical study with the experts, integrating the “from-acting-to-handling-approach”. The newly defined scopes of meaning are shown in Figure 63 and will be explained in the following.

As *responsibility* and *readiness to act* have proven to have a strong correlation, these two subscales represent a narrow scope of meaning. Simultaneously, this is also the basis for a broadening of scopes: without responsibility, there is no readiness to act, and without readiness to act, there is no self-reported behaviour. Due to the conative origins of attitude, the readiness to act can be supported through appropriate activity incentives and opportunities/offers leading to the desired behaviour (middle meaning scope or extent).

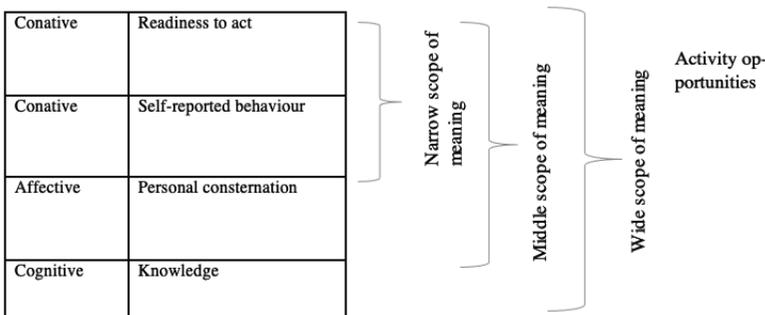


Figure 63: Adapted scopes of meaning for ecological consciousness

Source: own illustration

The triggered behaviour counts as an “impulse for further knowledge acquisition” (Kruse-Graumann, 2014:202) and sparks emotions. *Personal consternation* and *knowledge* are not treated as necessary pre-requisites for a readiness to act and behaviour, but are seen as acceptably strengthening these: both will be more resistant, persistent and predictable. Therefore, a target

group-specific transfer of knowledge (e.g. “arrival by car creates three times as much CO₂ as arrival by train”, Question 20, expert interviews, see Figure 43) is of huge importance.

This pattern for identifying sustainability consciousness will help to identify the general tendency of attitudes for a target group. The values are based, as previously mentioned, on the core values of all fields of action: mobility, energy and climate, waste management, water management, catering and location. Based on the influence pattern from Fietkau and Kessel (Figure 25), knowledge is one starting point out of four which can spark environmentally-relevant behaviour. Hence, the following paragraph will look more closely into the attitude of those respondents who answered the knowledge questions correctly (compare Figure 43). At the same time, the results of the questions for the different measurement elements focusing on the field of action “mobility” will also be taken into consideration to ensure comparability.

Subscale/Measurement attitude elements	Items
Existing/correct knowledge	The transport sector accounts for more than ¼ of greenhouse gas emissions in the EU (n = 18). -- CO ₂ in the atmosphere has increased by 1/3 since the beginning of industrial revolution (n = 18). -- Travelling by car from Cologne to Hamburg (basis: average degree of capacity) generates three times as much CO ₂ as by train (n = 18).
Readiness to act	In order to reduce resource consumption during events, I would generally be prepared to arrive by another form of travel instead of taking the car. -- When travelling to events by car, I would be ready to pick up at least three other persons in order to use the full capacity of the car.
Self-reported behaviour	If possible, I try to avoid taking the car. -- When travelling to events, how many persons (including you) are in the car (in average)?
Personal consternation	Sometimes it saddens me that my family members will be impacted negatively by the environmental damage of today. -- It saddens me that CO ₂ emissions and their impact on the environment and our health are increasing. -- I often think of car emissions as harmful.
Responsibility	I see the responsibility first and foremost with every single citizen: everyone should contribute. -- I see the responsibility first and foremost with industry. -- I see the responsibility first and foremost with science and experts. -- I see the responsibility first and foremost with enterprises. -- I see the responsibility first and foremost with politicians and parties.

Table 35: Measurement example elements of sustainability behaviour relating to the field of action mobility given existing knowledge

Source: own illustration

Thus, the question is whether the tendency values of the subscales are stronger when the appropriate knowledge exists. An example: If someone knows that CO₂ in the atmosphere has been increasing since the industrial revolution, does this knowledge deeply affect their readiness to act, self-reported behaviour, personal consternation and perception of responsibility compared

to experts/participants without this knowledge? In 2.12, the existing gap between sustainability awareness and sustainability behaviour – the behavioural gap – was discussed in society as a whole and the meetings and industry in particular (hence for association events as well). It turned out that the model from Spada can help to identify sustainability consciousness. This, in turn, is necessary for the factor “target group-oriented communication” (2.13.3) and will provide deeper insight from the empirical studies.

As announced in Chapter 2, the measurement scale *Ecology Scale* from Maloney and Ward (1975) and the subsequently developed German equivalent from Kley and Fietkau (1978) are used for orientation. Both reflect the different meaning scopes from Spada (Table 16). Kley and Fietkau (1978) expanded the *Ecology Scale* with the subscale “responsibility”. The five subscales are shown and explained in Table 36:

Subscale	Scope of meaning			Explanation	Item examples
	Narrow	Middle	Wide		
Personal consternation (affective)	X	X	X	Emotional, personal affection	“It saddens me sometimes that my family members will be impacted negatively by the environmental pollution of today.”
Knowledge (cognitive)		X	X	Knowledge of sustainable connections and the perceived seriousness	“I know that about 40% of the global population suffers from a lack of clean water.”
Responsibility		X	X	Perception towards responsibility for the preservation and restoration of the environment; intrapersonal and/or extrapersonal responsibility, i.e. of others (politicians, scientists etc.)	“I think responsibility lies with politicians and companies. They should take care of sustainability and lead environmental protection efforts by finding solutions.”
Readiness to act (conative)		X	X	Verbal commitment in the sense of a verbal readiness to act	“If the destination is centrally located, I would be ready to take the train to reduce emissions.”
Self-reported behaviour (conative)			X	Current commitment in the sense of a real obligation	“I eat less meat compared to the past because of industrial livestock farming in particular.” “I turn off the tap whenever possible to save water.” “I separate organic waste.” “I buy organic food.” “We use recycling paper in the office.” “Do you pay attention to energy efficiency when buying new devices?” “I prefer to turn up the heat instead of dressing warmer.” “We separate plastics for recycling (yellow bag).”

Table 36: Measurement scale for the determination of the attitude towards sustainability
Based on Kley et al., (1979); Maloney et al., (1975)

In order to measure the attitude towards sustainability, the items must be converted to numerical values, which was done according to the following system:

Measurement item/sub-scale	Items	Answer options	Points
Personal consternation (affective)	“Bad air quality from vehicle emissions often bothers me.”	Does not apply at all.	0
		Does rather not apply.	1
		Rather applies.	2
		Fully applies.	3
Self-reported behaviour (conative)	“When buying new electrical devices, I seek out energy efficient ones.”	Never	3
		Seldom	2
		Mostly	1
		Always	0

Table 37: Numeral system for identifying sustainability awareness

Source: own display

The system provides two examples here in Table 37 and the complete measurement system including subscales and items can be found in the Appendix A11. A schematic display depicting the analysed average values (converted) of the different items per subscale is shown in Figure 64:

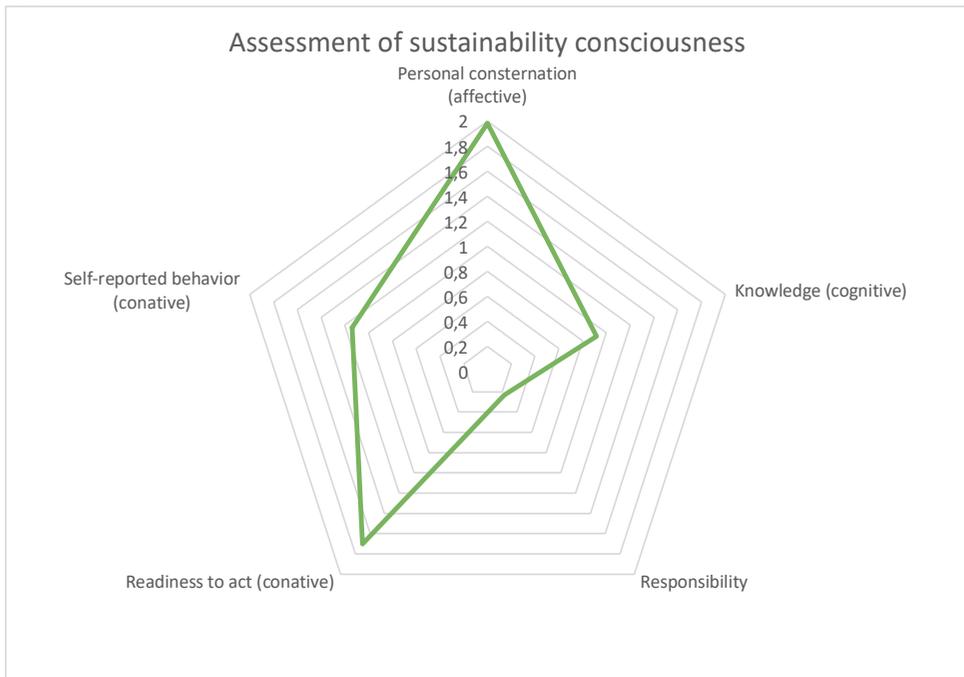


Figure 64: Schematic display for the measurement of the sustainability consciousness of the interviewed target group

Source: own display

Target group-oriented communication

As discussed in Chapter 2, communication is a central instrument to motivate people to engage in more sustainable behaviour (Kruse, 2007:111). Knowing that using the train produces three times less CO₂ compared to a car can help build a more environmentally sustainable attitude in the “mobility” field of action (cognitive attitude). The affective attitude component is not

rational, but rooted in the emotions and values connected to the item. Sensory reactions like the better taste of a fair-trade product, and aesthetics like the form and colour of a car can also produce affective attitudes (see 2.13.3).

As previously written, the behavioural component (conative attitude component) originates in the observation of one's own past behaviour towards an object or topic (ibid). The theory of self-perception, developed by Darly and Bem in 1972, states that humans are unable to recall or assign their own attitudes towards an item directly, but rather only after observing their behaviour (ibid). This requires a distinctly weak or ambivalent early attitude or a situation in which there are no other plausible explanations for one's own behaviour.

If the attitude origins of group targeted for communication can be identified, it is possible that they can contribute to more effective communication by the "fire fights fire" rule (Aronson *et al.*, 2014:4/233; see section 2.13.3). This rule refers to the fact that a cognitive-based attitude is more likely to be changed by coherent arguments, an affective-based attitude is more receptive to emotional pleas, and a conative-based attitude to triggers and incentives to act (ibid). The meaning of emotions in sustainability communication has already been discussed. Empirical, environmental, and psychological results confirm that environmentally protective actions are primarily rooted in both environmentally specific thoughts and emotions (Hellbrück *et al.*, 2012:103). As Trillig states, "[e]motions should not be underestimated for positive changes in behavior" (2013:256), as they can create the precondition to draw attention to factual topics and establish connections (Krause, 2007:53).

Target group-oriented communication should not only be adapted to the target group, but also align with other factors to minimise the behavioural gap. Parameters can include the barriers to sustainable behaviour, existing environmentally-relevant knowledge, subjective norms, the effect of behaviour stimuli and indentives, and the overall attitude towards behaviour. If, for example, the majority of the target group lives in a rural area and is thus dependent on personal vehicles (structural barrier), convincing them to take the train is not likely to bear fruit.

Predictors for behaviour

The last factor for the reduction of the behavioural gap rests on the so called *Theory of Planned Behaviour* from Fishbein and Ajzen (1991) that was detailed in Chapter 2. It highlighted five correlating, environmental and social-psychological factors, which can help to reduce the gap between sustainability consciousness and behaviour.

Measurement item/subscale	Items	Answer possibilities	Point allocation	Result frequency (n = 17)	Point calculation	Mean value of points	Mean value in total
Personal Conster-nation (Delphi)	It depresses me that my children/grandchildren/other family will be negatively impacted by today's environmental pollution.	Fully applies	3	10	30	2,411764706	1,983193277
		Rather applies	2	5	10		
		Does rather not apply	1	1	1		
		Does not apply at all	0	1	0		
	I worry about increasing CO ₂ emissions and their impacts on environment and health.	Fully applies	3	9	27	2,411764706	
		Rather applies	2	7	14		
		Does rather not apply	1	0	0		
		Does not apply at all	0	1	0		
	I often associate bad air quality with vehicle emissions.	Fully applies	3	1	3	1,647058824	
		Rather applies	2	10	20		
		Does rather not apply	1	5	5		
		Does not apply at all	0	1	0		
	I worry about pesticides in our fruits and vegetables.	Fully applies	3	5	15	1,941176471	
		Rather applies	2	7	14		
		Does rather not apply	1	4	4		
		Does not apply at all	0	1	0		
	I worry about there being enough drinking water in the future.	Fully applies	3	0	0	1,411764706	
		Rather applies	2	8	16		
		Does rather not apply	1	8	8		

		Does not apply at all	0	1	0		
I feel guilty when buying products such as clothes which are produced in developing countries like Bangladesh.	Fully applies	3	1	3	1,705882353		
	Rather applies	2	11	22			
	Does rather not apply	1	4	4			
	Does not apply at all	0	1	0			
The vast majority of packaging waste resulting from a shopping tour in a supermarket (e.g. shrink wrapped cucumbers, produce bags, single-use bottles) is often annoying.	Fully applies	3	10	30	2,352941176		
	Rather applies	2	4	8			
	Does rather not apply	1	2	2			
	Does not apply at all	0	1	0			

Table 38: Personal consternation

Source: own display

After discussing the results of the interviews based on the five measurement elements of sustainability awareness individually, the overall approach towards sustainability can be determined according to the measurement scale developed in Figure 65. A corresponding analysis of the results (mean values) can be found in Appendix A11. Table 38 (personal consternation) shows the measured characteristics of interviewees' sustainability consciousness. We can assert from that, seen in a descriptive way only, the willingness to act as well as a sense of responsibility are robust and well-formed, followed by the self-reported behaviour and personal consternation. Environmentally-related knowledge (background knowledge) appears to have a weak influence. This leads to the assumption that sustainability motivation is mainly conative, moderately affective, and weakly cognitive. Accordingly, effective communication based on the aforementioned "fire fights fire" rule (compare 2.13.3) and the conative origins of attitudes determined here would best entail offers and incentives to act.

The weak influence of prior knowledge shows that background knowledge and readiness to act do not share a strong interdependence, i.e. that the reason for a person's existing readiness to act is not predominantly based on his or her background knowledge. It can be assumed that it would be stronger then. The aforementioned assumption that a positive sense of responsibility, which is mainly influenced by the little numbers of mistrust with regard to politicians, enterprises and scientists as well as an anthropogenetic approach triggers the willingness to act, is confirmed. The values identified by a sense of responsibility and readiness to act are nearly identical. Accordingly, a positive sense of responsibility can be seen as a driver for readiness to act. These results also confirm that the handling-oriented approach of this study, "from acting to knowledge", is suitable. A facilitation for sustainability-relevant behaviour is necessary, though solely not behaviour effective.

Having discussed the drivers and barriers as well as the motivations and attitudes towards sustainable event management, the following sections will now take aim at the factors associated with their effective criteria. This will answer the fourth research questions and objective.

First, the experts were given the opportunity to state the most common measures they already implement when organising a sustainable event.

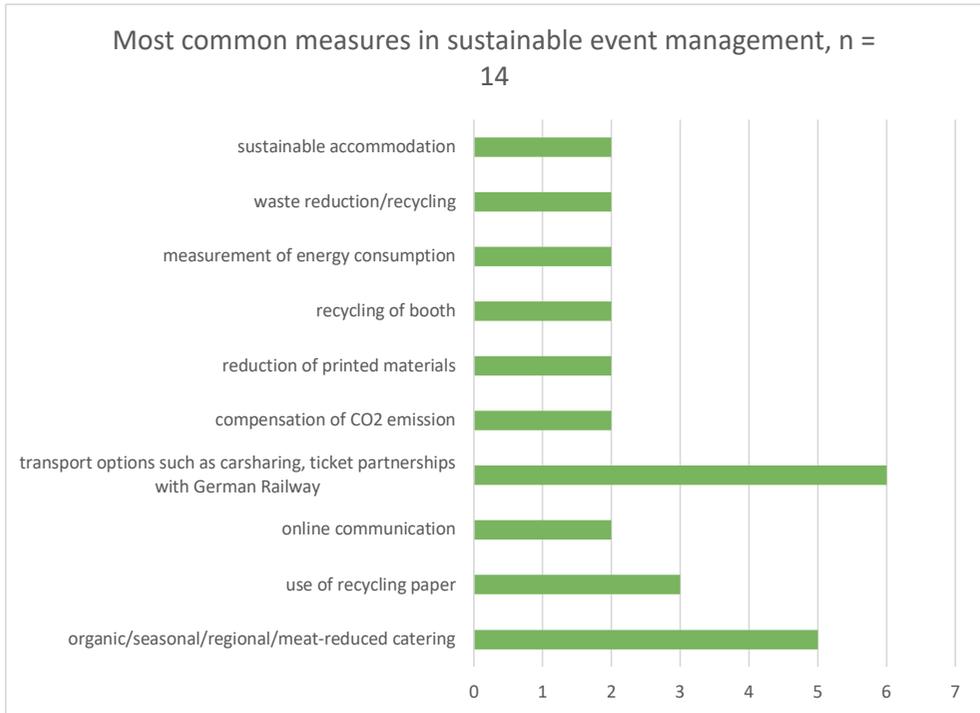


Figure 65: Most common measures in sustainable event management (expert interviews)

Four experts stated that they do not have experience here or did not answer the question, whereas 14 listed multiple measures. The most common measures include alternative transport options such as cooperative agreements with the Deutsche Bahn or carsharing pools. The Deutsche Bahn offers a first class ticket throughout Germany for 99 EUR, which can be booked by meeting and event delegates only. This is followed by the choice of organic, seasonal, regional or at least meat-reduced catering and a focus on larger product sizes, i.e. not using smaller milk containers, individual sugar packets, or mineral water in small plastic bottles. Reducing the use of printed materials and concentrating more on online communication also prove to be valid and preferred measures. One expert expressed satisfaction with the improved quality of sustainable products which rival the quality of non-sustainable alternatives such as off-white paper. Recycling of both waste and booths was a viable measure as well, at least for those working in the exhibition industry. Only two experts mentioned certified sustainable accommodations, which might be due to the fact that these types of offers are not yet widespread.

Question 17 (Figure 66) asked whether the experts suggest and discuss measures proactively in sustainable event management with their customers. The replies were nearly balanced: “yes” (eight) and “no” (seven). When analysing the statements given in the interviews it becomes clear that this is connected to the core business of the company/association. Naturally, those

whose core competence is sustainable event management explicitly point out and provide certain measures to their customers.

Next, the panel was asked whether their sustainable event management is measured in some way and, if so, how.

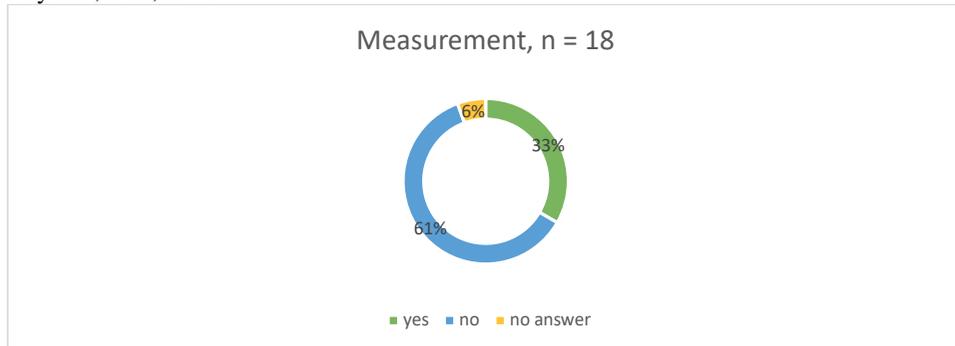


Figure 66: Measure of sustainability (expert interviews)

It shows that one expert elected not to answer, eleven answered “no” and six answered that they do measure the sustainability of an event. When analysing the interviews, the following details were found: those with third-party certification use their measurement tools while those without use open-source tools where it is possible to measure the ecological footprint or waste, water and energy consumption. All of them stated that they have experience with measuring CO₂ emissions. One answered that sustainability should be evaluated as soon as it comes to a series of events with the same stakeholder. None of them use a holistic measurement tool, although this is regarded as a unique selling point.

Respondents were then asked how indicators were determined. Fifteen experts did not answer this question due to a lack of experience or insight, but three did answer. One answered that indicators are determined by the evaluation agency, CO2OL in this specific case. Here, all “essential environmental impacts, but also all direct and indirect aspects, also those from the products, are summarised and measured. A mind map has been used to identify different fields of action and target groups such as clients, products, services and stakeholder for the indirect impacts. And an ‘eco-mapping’ has been used for the direct environmental aspects. This allows all environmental impacts and measures to be summarised on cards which leads to a clear picture of environmental protective measures.”

Another expert stated that the indicators are based on the measurement possibilities on-site: energy, waste and water. Although a small sample, it does underscore the concentration on environmental aspects identified previously in the literature. Holistic instruments appear to be missing here as well.

The next questions (Questions 28 to 33, see Appendix A11) evaluate the panel’s overall knowledge of sustainability. Figure 43 shows the overall number of correct or incorrect answers and the overall results of the component *knowledge* of experts. They show how frequently respondents chose the right or wrong answer in order to determine their level of background knowledge.

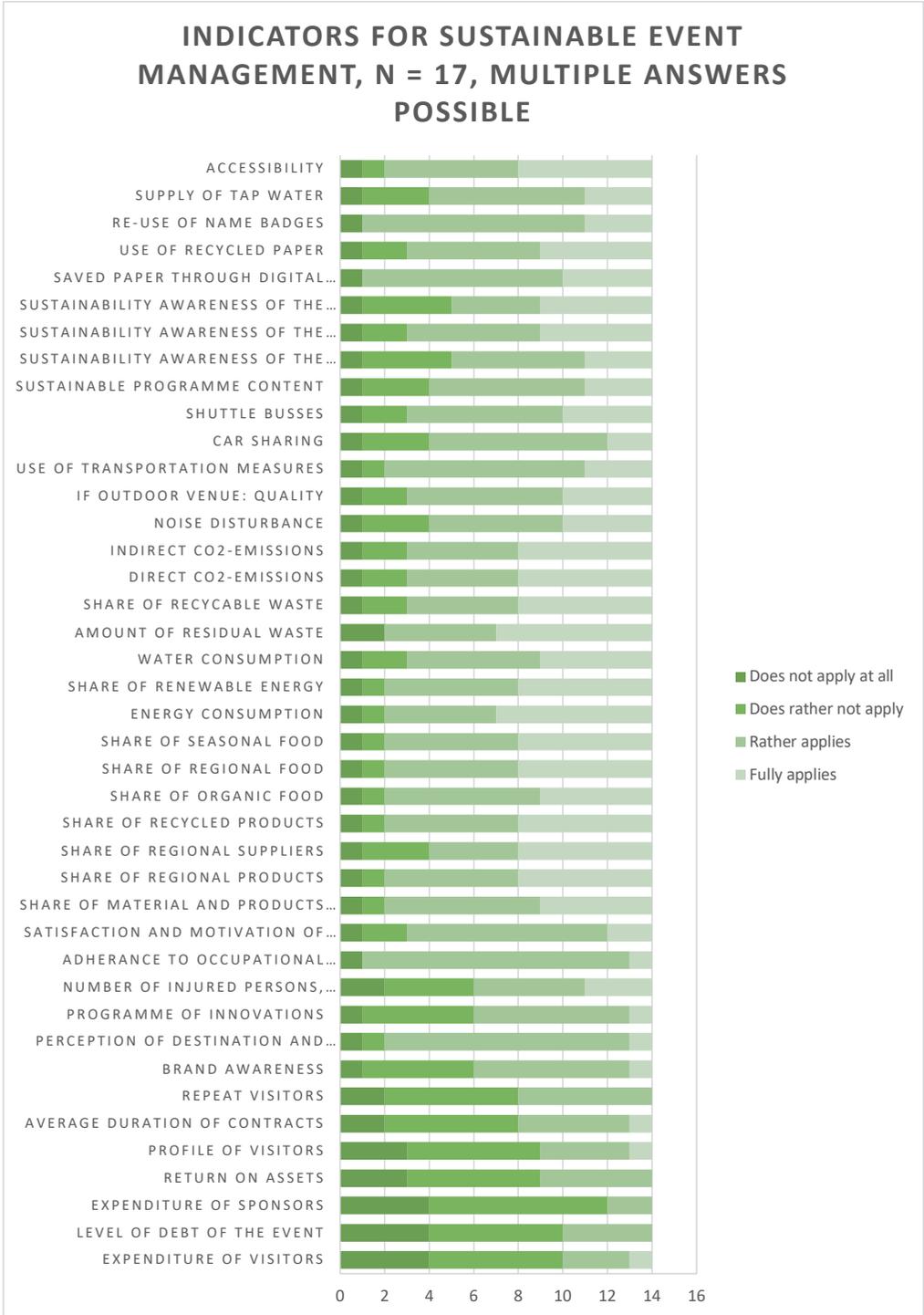


Figure 67: Indicators for sustainable event management (Q7, online Delphi)

The indicators suggested here were distilled from the expert interviews and the literature review. The highest common sector in the category “fully applies” is clustered in the following points: amount of residual waste (seven) and energy consumption (seven), accessibility (six), indirect CO₂ emissions (six), direct CO₂ emissions (six), share of recyclable waste (six), share of renewable energy (six), share of regional food (six), share of seasonal food (six), share of recycled products (six), share of regional suppliers (six), share of regional products (six). In contrast, image and economic factors were ranked rather low.

Some spikes can be identified in the category “rather applies”. The indicator ranked highest here is adherence to occupational safety regulations (twelve), followed by perception of destination and venue (eleven), re-use of name badges (ten), saved paper through digital registration (nine), use of transportation measures (nine), satisfaction and motivation of employees, and car sharing (eight). In contrast, expenditure of visitors (four red/six green), level of debt of the event (four/six), expenditure of sponsors (four/eight), return on assets (three/six), profile of visitors (three/six), and especially economic indicators were mostly rated as “does rather not apply” or “does not apply at all”. The indicators analysed will be used for the model development in the following chapter.

The analysis of the expert interviews was carried out analogously to the analysis in section 2.13 ff. in which factors for reducing the behavioural gap were distilled: identification of barriers, determination of sustainability consciousness and action-oriented forms of interventions. The parameter “target group-oriented communication” (refer to 2.13.3) reflects in this chapter the recommended actions for association events which are based on the results of the other factors distilled previously. Before highlighting the results of the data analysis of the different parameters, we aim to define the general understanding of the term “sustainability” in light of the inflationary use discussed in Chapter 2. This too is a parameter and should be taken into consideration for target group-oriented communication.

5.1.1 Sustainability assessment for the DPSG event and recommended actions

The final question (no. 23, DPSG survey), aimed to identify the respondent’s awareness of sustainability and whether they felt that this has increased over the event. This is particularly interesting for future events and their strategic planning. It can help to identify what could be improved, but also ferrets out positive results thus far. 125 respondents stated that their awareness has increased, but 293 answered negatively. This is aligned with the number of persons who stated they were already familiar with sustainability and indicates the belief that the event has not increased their already pre-existing level of awareness. At the same time, 125 positive responses that the event increased awareness of sustainability and sustainable event management can certainly be seen as a solid trend.

In summary, we found that the majority of delegates were unaware of the *Green Events Guidelines* published by the DPSG. Moreover, the majority of those who knew the guidelines believe that they are already taken into consideration in their association events, which stands in opposition to the statement elsewhere that only a few consider these guidelines in their own event planning for the scout groups. This leads to the assumption that sustainability plays a certain role, but the criteria “costs” and “easier organisation” are the driving factors to choose another form of transport for instance. Moreover, the majority would be ready to use public transport instead of a private vehicle at least for short distances. Those who were not ready to do so stated that they would be faster when taking the car which allows more flexibility in their daily life. This supports the view that when taking public transport, the driving force is not the desire for sustainability, but convenience.

Overall we found that all respondents show a certain awareness towards sustainability, but their behaviour and motivation varies strongly. Some include sustainable aspects unconsciously in their life and event planning, which is shown for example in Question 9 (mode of transport). In the survey, however, we learned that sustainable awareness differs strongly among the participants, although more than the half said it plays an important role in their lives. Most participants link sustainability to environmental aspects only and neglect social and economic issues, which was also seen in the expert interviews. Environmental measures are often applied unconsciously.

Effect of activity opportunities and activity incentives

The impact scheme for environmentally conscious actions model developed by Fietkau and Kessel (1981) (Figure 23) illustrates that attitudes can be changed through behaviour. The directly connected elements activity opportunity and activity incentives, which, according to the model, directly influence sustainability-conscious behaviour, were supported by both the experts and the DPSG event participants in the empirical study (compare Appendix A11).

The *perceived consequences* element of the model is initially not taken into consideration, but is relevant for target group-oriented communication. The social-psychological barrier *lack of influence* (compare to the *Dragons of Inaction* in Chapter 2) turned out to be one of the interviewees' main reasons for not acting more sustainably. The revelation of tangible consequences of one's own activities can therefore be seen as a huge lever for reducing a perceived absence of influence. The results of the activity opportunities and the related activity incentives can answer the question of whether they can improve willingness to act sustainably. Figure 76 (Appendix A11) shows the effect of activity opportunities from "simple offerings": avoiding paper handouts, reducing plastic in packaging, educating throughout workshops and communicating in general. Readiness is high in both cases even without activity incentives. Further research should display the impact of various activity incentives such as name badges on certified recycled paper, only providing printed information when necessary and on certified recycled paper, collecting name badges for reuse after an event, workshops, mobility offers or communication and catering improvements.

In terms of recommended actions for the DPSG, it would be interesting to see whether the gap closes more quickly when more incentives are offered or made easier (compensation subsidised by the association, compensation required from all participants, compensation by board as best practice example and social influence). The impacts of the subjective norm as an element of the theory of planned behaviour (compare Chapter 2) is obvious. The social influence from other colleagues, i.e. other event participants, might have more leverage than the social influence from managers or the board.

Activity offers and activity incentives impact readiness, i.e. they can strengthen or weaken it. Strengthening is important, as existing willingness can be enhanced such that it transforms into action. But what prevents the scouts from a socio-psychological perspective from engaging in more sustainable event management? Refusal due to a *general lack of motivation* would mean that respondents deny the existence of climate change and thus believe they themselves cannot have an impact (compare Gifford, 2011b). In line with Gifford's *Dragons of Inaction* (2011a) (compare 2.1.1), it is important to verify whether there is any alignment with the interviewees and, if so, which barriers are considered to have the most influence. The discovered barriers (for instance biased underestimation, mistrust, refusal) could reveal a general awareness of environmental issues. The next step should gauge the (non-)existing environmental awareness for the purpose of target group-specific communication according to Spada.

We see that the results of Question 12 (see Appendix A11) confirm the statements put forth by Altmeppen *et al.* (2017) and Balderjahn (2013) that awareness exists, but the corresponding behaviour is missing. The reasons can be attributed to several barriers. According to Balderjahn (2013), the strongest barriers of sustainable consumption include information deficits, price barriers, habits, ego, comfort, uncertainty and trust barriers. A huge barrier are the consumer's habits and comfort. This is most often seen in everyday areas such as nutrition, mobility, living and shopping for household items. Giving up on luxury or non-essential things for a more sustainable life style is generally regarded with skepticism. A change in habits is often seen as uneconomic, tied to more effort (comfort barrier), and lacking personal payoff (egoism barrier); this applies even more so when the (sustainable) alternatives are more expensive than conventional products (Balderjahn, 2013). Although the focus lies on socio-psychological barriers, the structural barrier ("poor public transport connections") is relevant with regard to DPSG events. Results from that survey revealed that few are willing to use public transport in lieu of a personal vehicle due to the poor connections when travelling to association event destinations. The inverse conclusion we can draw from that is that there is a general willingness to travel by train, provided adequate connections exist.

In summation, the results of the parameter *identification of barriers* can be assessed positively: the majority of respondents are aware of the fact that climate change is primarily anthropogenic and that they are also agents of change themselves. The results are consistent with the analysis of answers in terms of the measurement element "responsibility" described above. At the same time, the results of the barriers have already shown indications of an existing sustainability consciousness. In the next step for developing target group-oriented communication, a gauging of existing or a lack of sustainability awareness in accordance with the different elements put forth by Spada will be taken into consideration.

The interpretation of results in this chapter is based on the factors defined in Chapter 2 for reducing the behavioural gap: identification of the barriers, determination of sustainability awareness, and action-oriented forms of intervention. The parameter "target group-oriented communication" in this chapter reflects the recommended actions for DPSG based on the results of the other previous indicators.

Recommended actions evolved from the findings and results presented above. These were critical to determining what "[they] know, think, feel and actually do regarding ecology and pollution" (Maloney *et al.*, 1975:1, compare Table 17 and Table 36). This approach was taken for the following paragraphs based on the various factor. Moreover, the questionnaire also established a dialogue with the target group, which was integrated into the process of implementing sustainable measures for events. This aligns with the concept of the model of integrated sustainable event management (Figure 68) and provides the theoretical requirements for the DPSG regarding target group-oriented communication. This shall be formulated in greater detail in the following paragraph based on the analysed results.

Mobility

Despite the fact that many respondents pointed out this action field, few actions for the actual reduction of CO₂ emissions were implemented for this event. This is mainly due to the fact that the event takes place in a rural environment where the connection to public transport services is severely limited. This means there are few alternatives to arriving and departing by shared bus or car. In order to avoid issues with stakeholders such as local residents, free parking is still offered on a portion of the event grounds to prevent parking in the nearby village. Furthermore, there is no agreement with the local public transport services, nor self-organised cycling trips to the village. These steps might help reduce the CO₂ emissions produced during the event.

As the event is off the beaten path and thus limited by few connections to public transport services and a resulting lack of willingness of event participants to travel by railway, a cooperation with the Deutsche Bahn does not seem attractive. Nevertheless, there are additional measures which could reduce mobility-related emissions. Car sharing, for example, would be an option, and could potentially be organised through the official DPSG website directly. If targetgroup-oriented communication and examples are used and then explained on the website, this could also inspire some tribes to adopt these examples, potentially reducing the amount of single-person arrivals and departures. Finally, a compensating offer could also be an option. Finally, there are several online calculators such as “myclimate” which could be linked to from the DPSG homepage.

Despite the poor connections, the vast majority (81%) would be willing to take the train in general. Thus we can assume that only a small nudge would be needed to transform this willingness into action. Example nudges could be better communication of viable train connections on the DPSG homepage, group arrangements, or shuttle buses from the train station to camp for event participants ideally, or at least for their luggage.

Accessibility

Inclusiveness and accessibility are important topics for the DPSG. As mentioned above, there are different federal working groups, one of which specialises in the field of inclusion, aiming to offer scouting to all children regardless of physical or mental limitations. The DPSG has also translated the bible into *leichte Sprache*, a simplified version of German more accessible to non-native speakers. Despite the fact that the vast majority of the 4,000 event participants sleep in tents in Westernhohe, there are also special indoor accommodations for participants with, for example, barrier-free showers and sanitary facilities). Topics such as gender mainstreaming are not tackled here, which could be recommended step to take in order to offer a more holistic approach to social issues and improve the overall sustainability of the event.

Water and energy usage

The DPSG has an energy contract with Greenpeace Energy for its Pentecost event in Westernhohe. This energy provider specialises specifically in energy from renewable sources (Greenpeace Energy, 2020). The *Green Events Guidelines* for sustainable event management already lists several recommendations for saving energy such as LED camping lights for the tents, sourcing local wood for campfires, and using fair-trade coconut coal for barbecues (DPSG, 2016).

According to the DPSG, water is provided via a reservoir located at the highest point of the campgrounds. The water is pumped there first, before being distributed to the different washing houses. Thus the water supply is limited and water-saving measures are already in place. However, this topic is also mentioned in the *Green Events Guidelines* (example: do not run tap water while brushing teeth, use environmentally-friendly cleaning supplies while showering or cleaning the dishes). This topic could also be covered in workshops in order to raise additional awareness and explore additional steps beyond these. This could help to close the gap between sustainability awareness and behaviour.

Catering

There are two forms of catering to be considered: the catering at the location (*Bundeszentrum Westernhohe*) which caters for staff and guests and the camp kitchen for the different tribes. The location catering kitchen offers dishes cooked with regional and seasonal products, and has contracts with local and certified suppliers in order to avoid non-local fruits or long transport

ways. The topic of seasonality is also covered in the *Green Events Guidelines* in that sustainable procurement must consider the season in which an event occurs. Moreover, the guidelines provide information on fair-trade products such as chocolate or tea and recommendations for reducing the amount of meat-based dishes. However, as mentioned previously, the different tribes use their own kitchens for catering, which means widespread tracking of suppliers and procurement is not possible for the time being. Some tribes offer solely vegetarian dishes for the whole event period, but others buy their food at discounters in order to save money. Workshops covering this topic could be a good option here as well, as group leaders, i.e. members of the association, could give and use practical examples, relate their own experiences in DPSG-language, or, additionally, workshops could give experts a forum to talk and inspire. These could be connected to specific sustainability goals which are of special importance to the association. Additional recommendations would be to publish and share group shopping lists as best practice examples. These could provide orientation to those who willing to act more sustainably, but who feel that the barrier to start is too high (whether due to a lack of time, knowledge, or financial resources).

Waste management

The aim here is to reduce waste as much as possible during the entire event and encourage the correct dispose of waste. The reduction of waste is connected mainly to groceries. Here, the *Green Events Guidelines* already provide several recommendations on reducing plastic packaging, using re-usable containers to store food, and cooking new meals from food scraps. Moreover, single-use cutlery is prohibited; instead, everyone brings their own and washes them after every use. Compost sites are located next to the washing houses, allowing participants to dispose of biodegradable waste properly. Marked waste bins and containers encourage recycling, too. A workshop covering this topic might be an option here as well. Group social actions or events such as waste collection in wider areas could enhance participants' awareness of littering, particularly for younger children and teens.

Education

The event location specialises in sustainability. It offers, for example, information on bees and their role within the ecological system as well as an arboreal education path, where information on various trees in the forest is provided. Moreover, fruit trees have been planted by the scouts, which also creates awareness and an emotional connection to the grounds. The programme structure includes sustainability talks, workshops and discussions hosted by members and external experts, all of which serve to highlight the responsible use of resources. Additionally, information booths of the three main working groups (inclusion, ecology and international cooperation) can be found on the campgrounds, offering easily accessible information for everyone as well as special workshops. These offers should be broadened or at least maintained in order to integrate the topic holistically. A quiz on the sustainable development goals or the *Green Events Guidelines* could be an option here as well.

An important insight gleaned from questionnaire during the Pentecost weekend is that the DPSG's own *Green Events Guidelines* are not well known, which might be due to a lack of information, lack of target group-oriented communication with tribes, or their overall complexity. This would be a good opportunity for a top-down approach and highlights why a holistic approach and its internal and external implementation and communication is necessary. This ties into the development of a model of integrated sustainable event management in the following section

5.1.2 Summary of survey results

Associations like the German scouts are risk-averse by nature. They function as custodians of a sector or profession and their standards demand continuity as well as consistency. Innovation, however, is associated with risk, experimentation and (superfluous) change. Both primary and secondary research efforts have shown that barriers to innovation include a lack of time, resources (money or staff in particular), or simply innovation know-how. Therefore, implementing change or, in this case, more sustainable measures in event planning, requires an individual, tailor-made approach which is pro-active and problem-solving in order to promote broader implementation of the *Green Events Guidelines* throughout the whole association. The board should not only act as a best practice example in terms of mobility, catering and paper-less communication, it should additionally provide information on all of these topics for the members and group leaders, negotiate agreements with train and bus companies, or run board meetings virtually to reduce unnecessary travel and allow for more agile work and collaboration. Naturally, a core component of scouting is meeting in person and in the wilderness, meaning virtual meetings are not applicable for camping events, but this does not necessarily apply to board or group meetings. It should be stressed that this association in particular already focuses on sustainability and philanthropy, founded on the bedrock of the *Scout Law*⁶. Moreover, the complexity of sustainable tasks in event management, the various approaches and different stakeholders involved leads to the assumption that measuring it by quantifiable numbers only – reducing efforts to an accounting of numbers only – is not good enough.

The preceding section has shown that the DPSG is already active in many action fields recommended in guidelines published by the *Federal Ministry for the Environment, Nature Conservation and Nuclear Safety* (BMU, 2015). The various action fields are addressed by measures from their own *Green Events Guidelines*, which must be communicated better in order to encourage broader commitment and implementation from the different tribes. Several areas which are important in sustainable event management are taken into consideration, but it seems that is limited to organisational leadership and not integrated fully into the everyday actions of the tribes. This applies to both Westernhohe and the Pentecost event, as well as to one-time, smaller and individually planned events within the tribes themselves. It would be interesting to hear from the tribes about the different forms of events and perhaps compare them to events organised by the federal board (*Bundeskonferenz*).

Action field	Measures implemented by DPSG	Recommended actions from BMU	Measures most often mentioned in interviews
Mobility	Use of shuttle buses	Considering alternatives such as virtual or hybrid events; Choosing locations which are well connected to public transport; Providing compensation for climate protection projects; Using low-emission vehicles; Informing and motivating people to take the train	Use of shuttle busses; Venue choice (public transport access); Informing and motivating people to take alternative forms of travel (train or car pool); Cooperation with public transport services and compensation agencies

⁶ Scout Law includes the precept: Always leave places better than you found them. (<https://dpsg.de/de/ueber-uns/satzung-ordnung-konzepte/pfadfinder-gesetz.html>. Accessed 14/05/2021)

Accessibility	Complete barrier-free access to accommodation and sanitary facilities; Information booths; Workshops	Barrier-free access; Barrier-free sanitary facilities; Gender-neutral language; Measures for visually or hearing-impaired persons	Choice of barrier-free locations and accommodations
Energy and water consumption	Use of renewable energy; Water-saving measures; Recommendations and information for participants; Workshops	Use of energy efficient devices; Consideration of renewable energies; Water-saving measures	Creation of awareness of water- and energy-saving measures; Choice of energy efficient-locations and accommodation
Catering	Procurement of fair trade and certified products; Taking regional and seasons products into consideration; Information on shopping; Workshops	Use of seasonal, certified and fair trade products; Providing water in containers; Considering fish population when planning the meals	Procurement of certified products; Taking regionality and seasonality into consideration
Waste management	No disposable products; No plastic packaging for products; Composting at the venue; Recycling for packaging waste; Workshops	Usage of waste islands Usage of multi-use products; Reduction of paper; Use of recycled paper	Reduction of paper/print articles Divided waste containers for recycling and waste management; No disposable products
Education	Information points at the venue (e.g. bee cinema); Tree-planting with scouts; Information on sustainability in the programme;	Creating awareness through information	Creating awareness through information; Direct communication, e.g. via booths or workshops

Table 39: Comparison of measures from the DSPG

Source: own display, second column based on BMU (2015)

Table 39 illustrates that the DSPG already considers many measures necessary for sustainable event management. Some of them, the workshops for instance, are offered on top of a broad array of existing measures to raise more awareness for the topic. Many workshops already cover topics related to the sustainable development goals, and this strategy should be kept. For areas where changes might be introduced, recommended actions were developed. This includes, for example, the action field mobility, but also accessibility and catering have room for improvement with comparatively little effort. These changes would produce an even more sustainable Pentecost event. The model developed in the following chapter will help to ensure this for future events as well.

5.2 Discussion of findings

Both primary and secondary research efforts revealed that sustainability terminology is not used precisely and therefore often misunderstood. Respondents often felt that economic and social measures are necessary parts of corporate/association responsibility, but are necessarily associated with sustainability.

As a result, sustainability is most often connected to environmental measures such as paperless events and organic catering. Positive impacts on budgets are not considered a part of

“sustainability”. In fact, sustainable event management is often considered more costly. The environmental focus is also reflected in the common use of terms such as “green events” or “green meetings”.

With regard to the three pillars model from Elkington, the influences on each pillar must be underscored. No pillar can support sustainability alone, and there are both positive and negative influences to consider for each pillar, which inevitably leads to target conflicts. Elkington describes the three pillars/dimensions (or the triple bottom lines) as fundamentally instable: “they are an inconsistent flux, due to social, political, economic and environmental pressures, cycles and conflicts” (Elkington, 1998:73). Yet the study at hand shows that all dimensions of sustainability are relevant for event management purposes.

Although the experts’ and event participants’ experiences with organising sustainable events are still limited, specific aspects like reducing meat consumption or using organic catering are often considered attractive benefits, which underlines the pre-existing assumption between the influence of sustainable awareness and real behaviour. Communication among stakeholders can be seen as important here, thus the model of integrated sustainable event management was developed in order to ensure effective target communication.

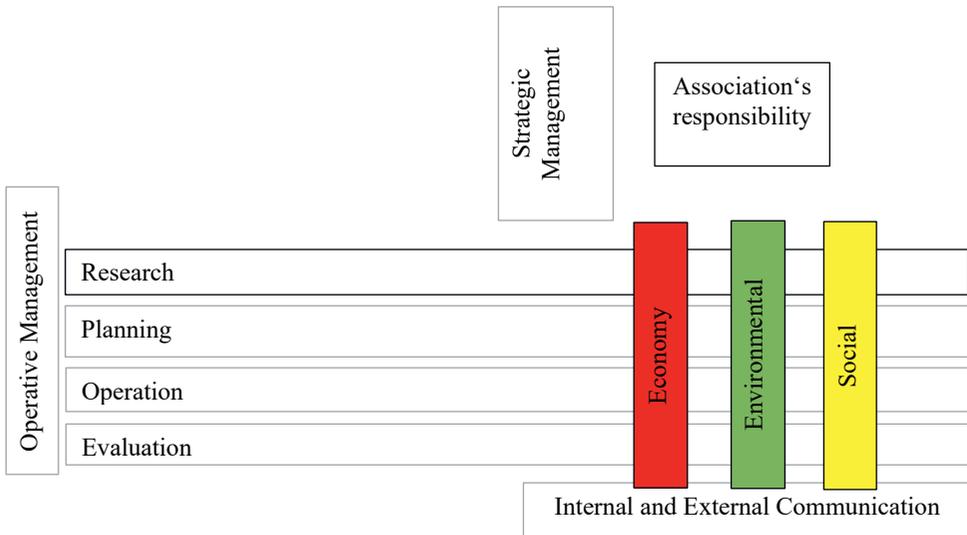


Figure 68: Integrated sustainable event management concept, own display

The results of the questionnaires given to the DPSG event participants show that the majority favour more sustainable organisation for their events. A positive attitude towards the topic can be seen as a good starting position for persuasive communication. Would the majority or respondents not feel this way, achieving positive change would be more complicated and require more time, as this starting position naturally must be reached first. As it is already given in this instance, it can be regarded as a stable jumping-off point for target group-oriented persuasive communication efforts, i.e. a real chance to change behaviour for the better. Accordingly, efforts here would contribute to closing the behavioural gap.

The implementation of sustainable event management strategies should be accompanied by matching communication addressing the specific target group. Moreover, the support of leadership is crucial as well, so that efforts appear authentic and convincing to employers,

customers, partners and suppliers. This is one of the most important factors for implementing sustainable development in companies and thus an important part of the overall concept of integrated sustainable event management.

Sustainability in event management must be seen as a necessity, not a trend. The literature review has shown that customers not only agree with sustainability, but have begun expecting it as well. Supporting this, the primary research focused on event participants revealed an increasing awareness of this issue, though behavioural change was not necessarily reflected in the results.

5.3 Summary and conclusions of Chapter 5

As shown in the primary research in both studies (interview experts and event participants), while social and economic measures are regarded as most important, environmental measures are most often adopted instead. Not all dimensions are considered to be a part of sustainability. Social and economic aspects are considered necessary for an association's success and are considered important strategic instruments connected mainly to positive implications on a psychological level such as image, trust and satisfaction. As it is seen as a competitive advantage and the terminology is unclear to many in the event industry, communication efforts must be targeted in order to facilitate implementation and, later, allow for the possibility of measuring sustainable event management. Holistic aspects should be made clear in order to support initiatives and ideally reduce the behavioural gap between sustainability awareness and actual behaviour



6 Model development

In this chapter we will use the research findings presented in the preceding chapter to develop a model of sustainable event management intended to facilitate easier measurement and optimisation of sustainable event strategies, as well as to assess the performance of sustainable events.

6.1 Introduction

If information alone were the solution, there would be fewer problems in general. Nowadays, there is so much information available on all sorts of issues that it is hard to keep track. This is true for sustainable event management as well.

The following chapter aims to bring the findings of the literature review presented in Chapter 3 in line with the findings of the primary research presented in Chapter 5. This will lead to the desired model of sustainable event management by identifying action areas, measures, impacts, and recommended actions for sustainably organised association events.

Accordingly and as outlined in the introduction, the research in this dissertation aimed at developing a model which allows for the identification and measurement of both positive and the negative aspects of tangible (economic) and intangible (social and ecological) impacts of events in the association meetings industry. Balanced and holistic measurement will be of special importance for this model to deliver valid information. Thus both qualitative and quantitative indicators shall be used, leading to a flexible approach applicable to educational events, scientific congresses, conferences and other meeting types within an association's respective industry.

6.2 Model of sustainable association event management

This model will enable the efficient steering of event impacts and a resulting strategic process of improvement. In order to present a transparent impact analysis, it is essential to analyse the assumptions and approaches towards each impact area.

A sustainable event management strategy can be based on a corporation's or association's sustainable strategy, if available, but for the sake of compatibility, existing experiences, and practicality (especially with regard to data availability), the development of indicators based on existing systems appears to be a reasonable approach. As such, a model can be understood as both an orientation and instrument for strategic decision-making. The insights from Chapter 2.9 ff., which discussed and highlighted the theoretical foundations for the impacts between events and stakeholders, are also integrated. This is also due for the necessity of communication highlighted there.

A model is a simplified representation of reality that is useful for constructing theory to guide research and facilitate investigation into what is currently known about certain behaviour (Mair and Jago, 2010:79; Köhler, 2014). In addition, models have proven useful as "a means of organizing disparate knowledge of social action into a somewhat arbitrary, yet plausible, process

of intervening psychological, social, economic and behavioural variables” (Gilbert, 1991:93).

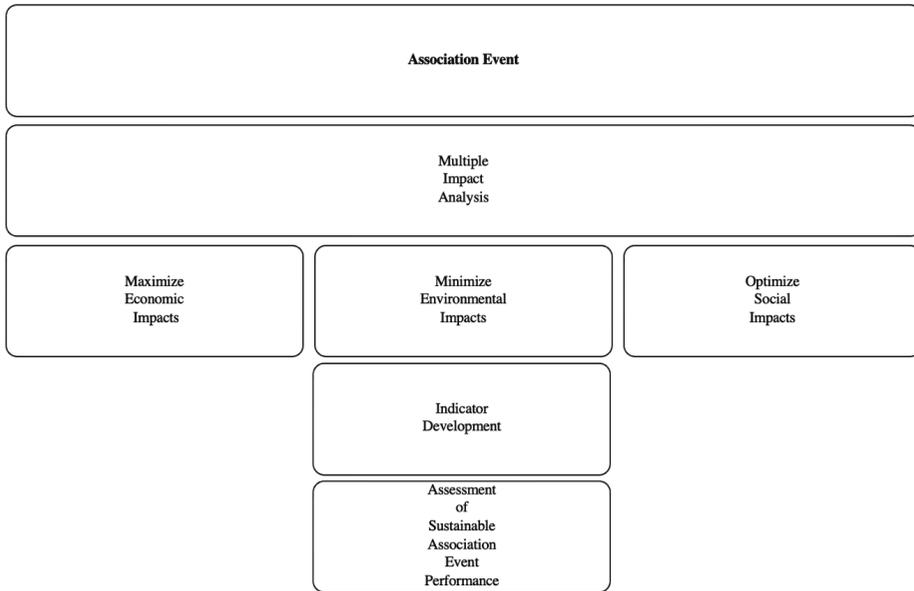


Figure 69: Model of sustainable association event management
 Source: own display

In order to improve from event to event, a holistic reporting and measurement approach should occur from the beginning. By identifying impacts and formulating indicators and targets, development can be observed on a regular basis. The identification of the various impacts occurring as the result of an event is essential to influencing the way events are organised. Strategic optimisation based on a methodical instrument can support this. To develop the model continuously and illustrate its utility, it should be applied, tested and amended via an empirical study of a real event (in this case: German Scout Association, Westernohe, Pentecost event). This also supports the identification of indicators for measurement.

The aim of this model is to support a holistic and multi-dimensional consideration of sustainability in strategy, decision-making and event planning, while also driving improvement across all three dimensions of sustainability via the TBL approach. As identified in the literature, such a model can highlight cause-and-effects relationships across all perspectives instead of merely summarising a loose collection of indicators. The development of an instrument from performance measurement tool into a strategic management concept allows the use of SEWS to communicate the strategy both internally and externally as well as to bridge the gaps between strategic and operative planning and event execution along the supply chain. It can not only help to integrate sustainable principles in event management and demonstrate sustainable event performance to others, but also identify opportunities for improvement in all three dimensions of sustainability. Thus, the gap between sustainable awareness and behaviour is minimised and thoughts turned into action.

The survey among DPSG event participants showed that individual sustainability measures are a good starting point, but are not considered within a holistic strategy. An integrated version of sustainable event management is needed here in order not to avoid reducing people’s existing willingness to act sustainably. Many enterprises and associations have identified this need

already, but both primary and secondary research show that this is often not yet reality. Successful measures must be adapted to the three pillars of sustainability and align with communication in the company or association as well as with stakeholders. Achieving identified measures implies a change in attitude and behaviour in stakeholders. Essentially, responsible managers within the association or company, the operative event management as well as events delegates are called upon to change their own behaviour for the sake of successfully implementing sustainability measures, whether ecological, economic or social. To that end, potential barriers can be targeted and diminished.

Due to reasons such as lack of financial resources or time, it might seem attractive to stick to just a few specific measures and strategies derived from the model. This is often justified by the thought that “it’s better than nothing” or “we only just started”. While it certainly is better to start small than to not start at all, companies and associations should still strive for a holistic approach. This can produce a more convincing and authentic public image and more success in terms of implementing, optimising and measuring the sustainability approach employed, leading to more and better sustainable events in the future.

An impact analysis should be applied every time before and after an association event in order to gauge the level of improvement of the event’s impacts in terms of sustainable event management. Naturally, this requires indicators.

6.3 System of aims for sustainable association event management

In order to illustrate the process, the following workflow for developing a set of indicators was chosen:

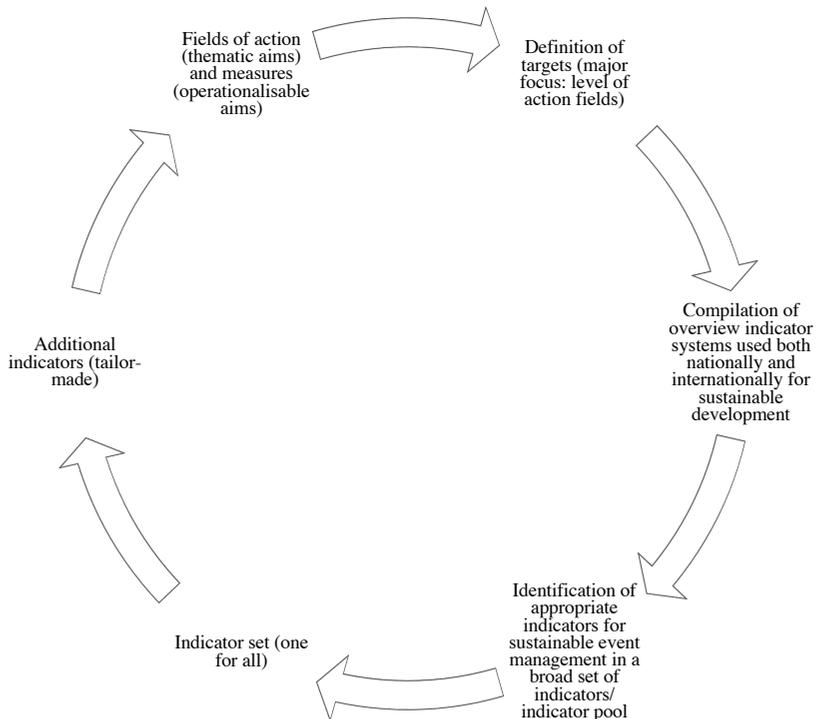


Figure 70: Workflow indicator development

Source: own display

Definition of aims (major focus: level of action fields)

To draft a set of indicators using the conceptual model above, a series of 18 semi-structured interviews were conducted with German meetings experts. Interviewees were asked to identify the main benefits of sustainable event management. The extraction of aims is essential and forms the basis for subsequent process steps. Four targets can be derived from the aims formulated in the strategy:

- General, overlapping aims, which result mainly from the core questions (main objectives).
- Aims of the top priorities, focal points of activity (aims resulting from the challenges which are addressed).
- Formulated aims of the 19 fields of action (thematic aims).
- Tangible, measurement-related aims, i.e. potentially manageable aims

Fields of action (thematic aims) and measures (operationalisable aims)

The evaluation of the fields of actions with their thematic aims is of special importance for the development of indicators. Higher ranking aims and aims of the action fields are mostly general, whereas measure-related aims refer to a narrower frame. The focus on the fields of action allows us to limit the number of aims to a manageable number.

This kind of target extraction is inevitably influenced by personal judgements / assessments. The decision to include additional indicators is often made by subjective assessment, and

therefore might serve as a basis for discussion. An open dialogue with all stakeholders involved would be a possible approach to tackling this and, simultaneously, draw broader attention to the topic/issue.

Extracting aims results in the following frame:

System of aims of the sustainable event management strategy of an association
Main aim: sustainable event management
<p>Main strategic aims:</p> <ul style="list-style-type: none"> - Maximise economic impacts - Minimise environmental impacts - Optimise social impacts
<p>Core questions</p> <ol style="list-style-type: none"> 1. Can economic impacts be maximised in a way that supports development for all stakeholders involved? 2. Can environmental impacts be minimised as to not exceed earth's capacity to provide and regenerate? 3. Can social impacts be optimised in a way that supports social welfare, well-being and solidarity?
<p>First focal point of activity</p> <p>Sustainable economic activity</p> <ul style="list-style-type: none"> - Maximise economic impacts - Support stakeholder development - Foster individual and social welfare - Economic activity that conserves resource - Economic cycles which strengthen regional businesses <p>Action field 1: production and resources</p> <ul style="list-style-type: none"> - Reduce, reuse, recycle <p>Action field 2: accounting and regulation</p> <ul style="list-style-type: none"> - Meeting the conference budget <p>Action field 3: consumption and use</p> <ul style="list-style-type: none"> - Visitor expenditures <p>Action field 4: labour and welfare</p> <ul style="list-style-type: none"> - Fair staffing <p>Action field 5: technology and infrastructure</p> <ul style="list-style-type: none"> - Event app <p>Action field 6: wealth and distribution</p> <ul style="list-style-type: none"> - Accessibility <p>Action field 7: materials and procurement</p> <ul style="list-style-type: none"> - Print materials on request, event app, local suppliers, certified suppliers <p>Action field 8: competitive advantage and image</p> <ul style="list-style-type: none"> - Creating awareness
<p>Second focal point of activity</p> <p>Sustainable environment</p> <ul style="list-style-type: none"> - Minimise negative event impacts on the environment - Protect the basis of life on earth - Support low emission / resource-conserving modes of transport

<ul style="list-style-type: none"> - Mobility which ensures barrier-free accessibility <p>Action field 9: materials and energy</p> <ul style="list-style-type: none"> - Conservation measures <p>Action field 10: water and air</p> <ul style="list-style-type: none"> - Conservation measures <p>Action field 11: flora and fauna</p> <ul style="list-style-type: none"> - Protective measures <p>Action field 12: food and beverage</p> <ul style="list-style-type: none"> - Sourced locally, certified fair trade <p>Action field 13: place and space</p> <ul style="list-style-type: none"> - Accessibility <p>Action field 14: construction and location</p> <ul style="list-style-type: none"> - Reduce, reuse, recycle <p>Action field 15: emissions and waste</p> <ul style="list-style-type: none"> - Conservation measures such as using LEDs, recycling <p>Action field 16: mobility and accessibility</p> <ul style="list-style-type: none"> - Sharing platforms - Incentives for using public transport
<p>Third focal point of activity</p> <p>Social sustainability</p> <ul style="list-style-type: none"> - Optimise social impacts - Support social welfare, well-being and solidarity in the community - Foster social cohesion and solidarity - Foster sustainable development in associations / event management - Support equal opportunity efforts <p>Action field 17: engagement and identity</p> <ul style="list-style-type: none"> - Creating awareness - Motivating employees - Stopping brain drain - Using potential for innovation - Encouraging employee responsibility, participation in processes <p>Action field 18: health and well-being</p> <ul style="list-style-type: none"> - Safety and security for all stakeholders involved <p>Action field 19: communication and transparency</p> <ul style="list-style-type: none"> - Stakeholder involvement and participation - Reporting - Internal and external communication

*Table 40: System of aims for a sustainable event management strategy of an association
Based on Wall and Behr (2010); Oblasser and Riediger (2015); Köhler (2014); Sherwood (2007); Getz (2015)*

Two evaluative parameter which already provide insight into the transferability of indicators were included:

- Data availability
- Comments

The identification of appropriate indicators for sustainable event management in a broad set of indicators (indicator pool) evolved.

As this study covers the niche of association events such as the federal conference (*Bundeskonferenz*) and the Pentecost event of the German Scout Association St. Georg (DPSG), it argues that an association event has certain parameters that are distinct from other business entities. Association events are, for example, organised by a non-profit association, which of course brings its own host of impacts, challenges and requirements compared to events organised by a for-profit company. Moreover, they are mostly planned long-term and often held only once in a particular destination or location. Naturally, festivals have more significant external impact than an association's meeting or conferences held in an existing conference centre. Often, they are organised by a board that generally focuses on other duties in daily business and in co-operation with an event agency or professional congress organiser. In-house event divisions can only be found in the largest associations such as *United European Gastroenterology* or the *International AIDS Society*.

Consequently, sustainability strategies should be integrated into the earliest stages of event planning to illuminate how economic, social and environmental impacts are (potentially) interconnected (refer to Figure 68). In this way, event managers can show that they are properly addressing events impacts and legacy as well as the wider range of costs and benefits linked to association events. According to the event impact analysis approach from Wall and Behr (2010) introduced in Chapter 3, this goal can then be subdivided into three components:

6.3.1 Economic impacts

There are direct and indirect impacts that events can have on the economy of the destination where they occur.

This produces the following action fields:

- Production and resources
- Accounting and regulations
- Consumption and use
- Labour and welfare
- Technology and infrastructure
- Wealth and distribution
- Materials and procurement
- Competitive advantage and image

6.3.2 Social Impacts

For the impacts of events on the society, the definition from Mathieson and Wall (1982) has been adopted here, i.e. "changes in quality of life of residents of tourist destinations" (Mathieson and Wall, 1982:137). Thus, arguably all impacts have a social dimension.

Therefore, action fields would be as follows:

- Engagement and identity
- Health and well-being

- Communication and transparency

6.3.3 Environmental Impacts

- Direct, local and immediate impacts (construction activity, loss of habitat/biodiversity, increased carbon emissions, event waste)
- Indirect impacts (global and local, purchase of goods and services, fruits, water...)
- Materials and energy
- Water and air
- Flora and fauna
- Food and beverage
- Place and space
- Construction and location
- Emissions and waste
- Mobility and accessibility

In summary, transparency of indicators also allows for better communication of results to stakeholders. The identification of potential stakeholder groups can support the development, acceptance, resourcing and implementation of strategies to identify, control and steer an event's sustainable impact as well as, finally, enhance the association event's performance in terms of sustainability. Critically, some stakeholders may be able to assist in the data collection process, or if stakeholders include other event managers a division of labour can be achieved for collecting different types of sustainability-related information. As was shown in the previous chapters, target group-oriented communication is considered essential for the successful implementation of sustainable event management strategies.

The following Figure 71 summarises the thematic aims of the sustainable event strategy, the action fields:

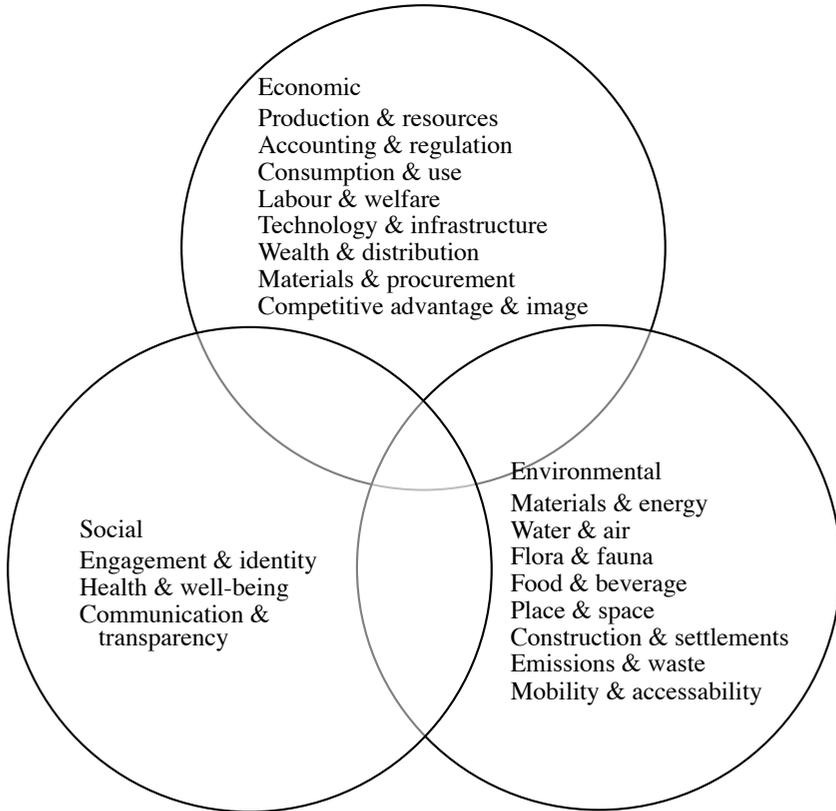


Figure 71: Thematic aims of sustainable event strategies
Source: own illustration

Table 41 summarizes the identification of measures and targets which can be operationalised:

Column	Action fields	Measures (examples)
Economic	Production and resources	Reduce, reuse, recycle
	Accounting and regulation	Meeting the conference budget
	Consumption and use	Visitor expenditures
	Labour and welfare	Fair staffing
	Technology and infrastructure	Event app
	Wealth and distribution	Accessibility
	Materials and procurement	Print materials on request, event app, local suppliers, certified suppliers
	Competitive advantage and image	Creating awareness
Environmental	Materials and energy	Conservation measures
	Water and air	Conservation measures
	Flora and fauna	Protective measures
	Food and beverage	Sourced locally, certified fair trade
	Place and space	Accessibility
	Construction and location	Reduce, reuse, recycle
	Emissions and waste	Conservation measures such as using LEDs, recycling
	Mobility and accessibility	Sharing platforms, public transport services
Social	Engagement and identity	Creating awareness, employee motivation
	Health and well-being	Safety and security for all stakeholders involved
	Communication and transparency	Stakeholder involvement, reporting

Table 41: Action fields and measures of sustainable event management

These are merely a few examples; the full list can be found in Appendix A16.

Measures are divided into economic, environmental and social columns according to the *triple bottom line approach* and example measures for each action field are given, for example reduce, reuse, recycle for “production and resources” or Print materials on request, event app, local suppliers, certified suppliers for “materials and procurement”. They all support the overall objectives in the definition put forth by Musgrave *et al.* (2009:5), namely maximising economic impacts, minimising the environmental impacts and optimising social impacts. This definition is also supported by Holmes (2015:4).

Chances for associations	High	Low effectiveness, high chances Risk greenwashing, measures hold risks	Medium effectiveness, high chances Strategy forming – increase effectiveness in measure planning	High effectiveness, high chances Strategy forming – essential for strategies
	Medium	Low effectiveness, medium chances Risk greenwashing, measures holds risks	Medium effectiveness, medium chance Strategy forming 2nd order – increase chances and effectiveness in measure planning	High effectiveness, medium chances Strategy forming 1st Order – increase chances in measure planning
	Low	Low effectiveness, low chances Field of action can be neglected	Medium effectiveness, low chances Field of action for potential con-sideration	High effectiveness, low chances Field of action must be considered in measure planning
		Low	Medium	High
	Effectiveness of sustainability			

Table 42: Strategy matrix

Source: Oblasser and Riediger, 2015:104

With the help of the strategy matrix from Oblasser and Riediger (2015:104), the effectiveness of sustainability can be visualized in terms of chances for the associations for a specific event. As already described in Chapter 3, this matrix is divided into low, medium and high chances/effectiveness and helps to determine whether a measure is effective or not in relation to the chances it presents for associations.

As the preceding pages have shown, there are several challenges when it comes to developing an optimisation model for sustainable event management. The literature review in Chapter 3 looked at several issues in detail, but here is a brief overview as a reminder:

There is no lack of indicators today; indeed, there are arguably too many. The pool of indicators, systems, certifications and schemes has become too complex, which makes it difficult to extract the most important and closest matching information in order to identify the most appropriate ones for a particular applications, at least for event managers juggling their other duties and responsibilities at the same time. Information alone is not the solution here, but rather potentially part of the problem. Therefore, this dissertation aims to offer a helping hand with SAESW.

Moreover, holistic models require the integration of all stakeholders, including operations and management, in order to offer a realistic and feasible consideration of the time and efforts needed for data acquisition and implementation. As the concept of integrated sustainable event management introduced in Chapter 5 has shown, it is essential to anchor it in all management levels. Depending on the nature of the event, the group of stakeholders should also be broadened to include locals etc. Independent supervision of the process ensures a target-oriented integration and work flow open to all stakeholders.

As previously discussed, transparent communication is crucial as well, and should clearly and visibly portray not only the chosen indicators, but also potential issues and challenges (compare the model of integrated communication presented below). Another challenge can be the integration of existing management approaches. The set of indicators should display as clearly as

possible the achievement level of the sustainability strategy's aims as well as make the effectiveness of measures visible. When it comes to data collection, validation and analysis, the required skills and know-how should be available internally or booked externally. Another issue might be generalising expected event impacts by drawing conclusions from other association events. The SAESW can help to display results and options for improvement, but also influence changes in individual and organisational behaviour or the association. It is essential to ensure that impact assessments are not only undertaken after the event and that the results are discussed, communicated and put towards optimising future events in terms of sustainable event management performance.

We see that there is a risk that the problems identified within each dimension of sustainability also are considered in an isolated manner. As discussed before, a multi-dimensional and holistic approach is important to mitigating this risk. One-dimensional thinking can lead to loss of the bigger picture and optimisation opportunities. Such an approach may have several unwanted side effects as well, for example a solution focused on one aspect may negatively influence another issue (see 2.12). Creating affordable, certified accommodation may be attractive, but when these new hotels are built far from venues, the result might be a net increase in traffic and emissions (sustainability dilemma). This move may also create factions within the event management team with opposing viewpoints. Moreover, it tends to focus on short-term benefits without monitoring long-term effects. Additionally, decision-makers of the associations may have differing views and interest in different indicators (Wall and Behr, 2010). As indicators guide management control and strategic planning, they must be defined with care and take the specific interests of the association into account. Lawrence (1997, in Sherwood, 2007) provided a rationale for indicators and suggested that the concept behind sustainability indicators is very simple: the intention is to answer the question "How can we know objectively whether things are getting better or worse?" He continued, stating "[t]he idea is that as this information is provided to relevant parties, there will be a reduction in the reliance on intuitive decisions and an increase in the reliance on objective information. The result will be better and more informed decisions about sustainability" (Lawrence, 1997 in Sherwood, 2007:60).

Indicators are usually designed to display complex conditions in order to make them quantifiable (Corson 1996). For example, environmental and social indicators can gauge both the health and viability of environmental and social systems as discussed in the paragraph on measures above. Results must be presented and interpreted in a manner that is easily understandable to those who are able make the change.

As definitions of indicators are manifold as well, the following section will briefly look at those used in this dissertation.

6.4 Selection of indicators

The definition of indicators, the numerous ways a definition may be developed, the different functions it may perform, and the criteria for best assessing its ability to meet policy requirements may initially seem rather obvious and simple, but this is deceiving.

The OECD proposes the following definition of indicators: "a parameter or a value derived from parameters, which provides information about a particular phenomenon." It also noted that there is often a tension between the different types of providers, users, applications and functions of sustainable development indicators (OECD, 1993):

- **Technical indicators:** aiming at a technical or science-based representation and modelling of complex human-environmental systems
- **Policy indicators:** aiming at a policy or management-focused information with direct linkages to the stages of the decision-making process
- **Social indicators:** aiming at a more general use for citizens, consumers, non-governmental organisations and other bodies, where practical application is more focused on awareness-raising and agenda-setting

As discussed above, indicators should follow a holistic, comprehensive and multi-dimensional approach in order to reveal interdependencies, linkages and cause-and-effect relationships. Indicators must be easily understandable, reasonable, measurable, possible to quantify, accessible, comprehensive, reflect various aspects of research, be sensitive to change over time, independent, standardised for comparison purposes, clearly defined, and capture long-term processes.

Accordingly, the following parameters were used to identify the indicators that can help to measure and optimise sustainable association events:

- Data availability with sufficient validity
- Traceable and repeatable measurement
- Scientific-informational value for the required topic
- Comprehensibility

Besides offering pure data on the state and development of an action field, an indicator should also offer insights on the steering options for development in order to offer a strong basis for decisions. Indicators make aims tangible and permit both comprehensible measurement planning and ongoing verification and optimisation of success. This process allows for the documentation of successful objectives and the transferability of any developed measurements to different events. Moreover, a comparison of different events over a certain period of time is possible, internal benchmarks can be set, and data can be integrated easily into environmental communication, sustainability reports etc.

Based on these considerations, the essential functions of indicators can be summarised as:

- management and steering,
- information for decision-making and steering processes (e.g. implementation of measures to ensure achievement of an objective),
- communication and discussion,
- information about the level of achievement for the public at-large,
- verification,
- demonstrating development, and
- identifying needs and opportunities for change.

The literature review showed the importance of distinct targets and indicators. Targets are defined by management and form the mission statement/overall concept/strategic foundation for the association's or company's actions. Thus indicators show the level of achievement and allow targets to be rendered/specified. Without targets, indicators can only describe a condition. For the operationalisation of an aim or a specific measure, a criterion as well as how it is measured and documented must be clearly defined and described.

In this study, indicators will show if and how an event can move in a more sustainable direction, preferably using numbers which allow for sustainability comparisons between events and can be used to optimise strategies. Before defining such indicators, we must first clarify which

developments in society, environment and economy are relevant for the sustainable development of an event. The development of such an indicator system thus requires the definition of a concept for sustainable event management and its operation.

Sustainability indicators fulfil both a descriptive and a normative purpose: descriptive in that they describe current conditions, and normative because they measure the status and expected trends against a background of qualitative and quantitative objectives for sustainable development, i.e. the identification of sustainability deficits and corresponding calls for action. The purpose of the model is to develop a set of indicators that can be used to monitor the progress of sustainable association event management strategies as well as the optimisation process over an extended period of time. We found that they should cover issues that are relevant for sustainable association event management and must provide critical information not available from other core indicators. Moreover, they must be calculable by most associations with data that are either readily available or could be made available without unreasonable time and expense.

With regard to the primary research presented in Chapter 5 (“If so, how are indicators determined?”, Figure 67), 15 experts gave no answer due to a lack of experience or insight. Among those who responded positively, one answered that indicators are determined by the evaluation agency (CO2OL in this case). Another expert stated that the indicators are based on the measurement possibilities available on-site, i.e. energy, waste and water. Although a small sample, it does underscore the concentration on environmental aspects identified previously in the literature. Holistic instruments appear to be missing here as well.

After defining the different indicators and their requirements, the following section will introduce the indicator selection process for sustainable association events. The following flow chart visualises the process of compiling a set of indicators for sustainable association event management.

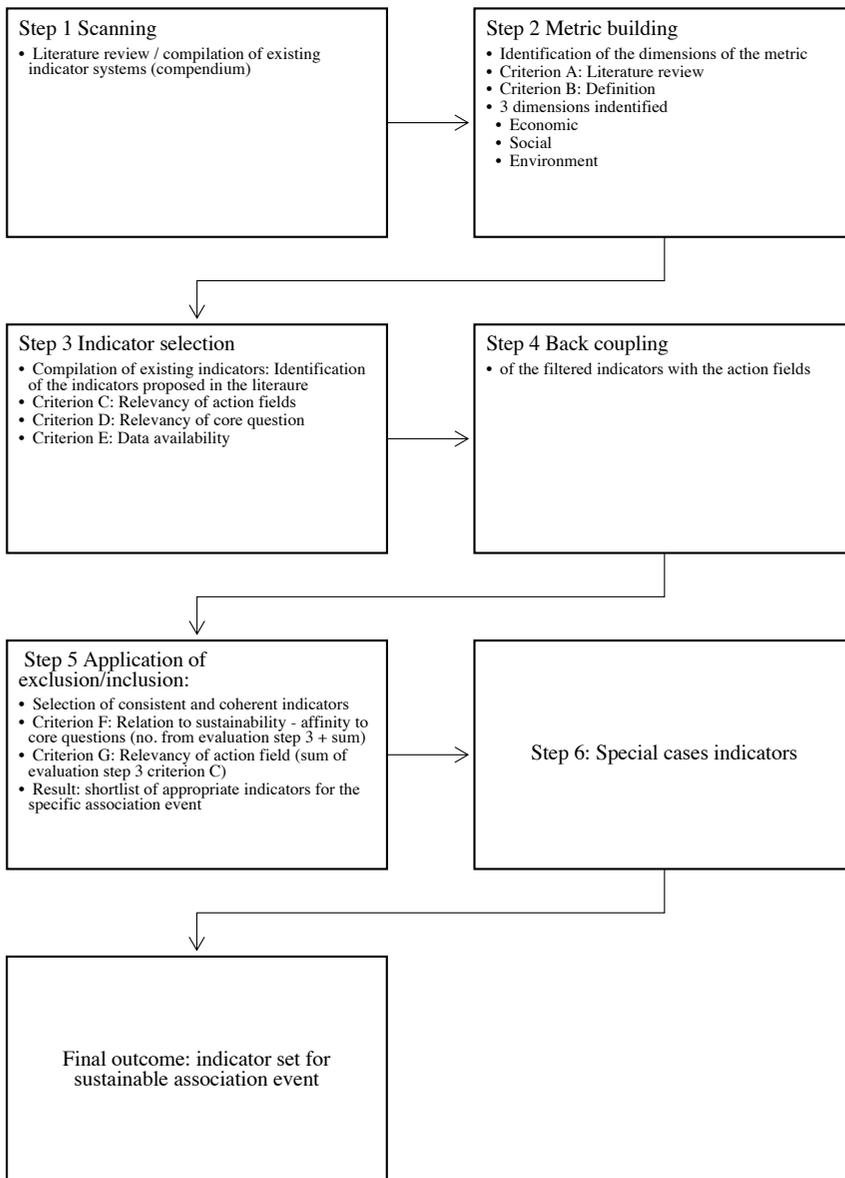


Figure 72: Process chart for compiling a set of indicators for sustainable association event management

Source: own illustration

This process will be introduced in more detail in order to distil an indicator set that is relevant for sustainable association events.

Step 1 Scanning: The first step begins with a review of international sources of sustainable management-related indicator sets (see Appendix A3). As already explained, the SAESW uses a set of sustainable development indicators that were classified using the widely accepted approach of the Global Reporting Initiative (GRI) as well as another well-known models in the

literature that was discussed broadly in Chapter 3 (compare Oblasser and Riediger, 2015:96; Sherwood, 2007; BMU; GRI EOSS, 2015a; Holmes, 2015; Sakschewski, 2016a:106 ff.; Wall and Behr, 2010). Furthermore, it is also based on the indicators identified in the primary research.

Step 2 Metric building: The next step identifies the three dimensions of sustainability based on the literature review and the definitions economic, environmental and social.

- Criterion A: Literature review
- Criterion B: Definition

A compilation of existing indicator systems depending on an explicit definition of sustainable event management is used in this study. To repeat briefly what was discussed in Chapter 2 and 3 extensively, according to the definition of Moderer *et al.* (2012:190), sustainable event management refers to “economic, environmental and socially compatible handling of resources and the involved stakeholders needed for the organisation and implementation of the sustainable event.” In short, the aim is to maximise the economic impacts of events (e.g. budget savings), minimise the environmental impacts (e.g. CO₂ emissions), and optimise the social impacts (e.g. by using local suppliers) (Musgrave, 2009:5). This broad definition has been broken down into 19 elements (“action fields”) within each of the three dimensions. Each element represents a key concern of sustainable event management. Each concern should therefore be reflected in the indicators in order to display progress towards sustainable event management.

Economic	Environmental	Social
<ul style="list-style-type: none"> • Maximise economic impacts • Adhering to conference budget • Profitability • Long-term supplier contracts and relationships • Mobility 	<ul style="list-style-type: none"> • Minimise environmental impacts • Mobility • Renewable energy • Water conservation • Local fair-trade catering • Limiting emissions • Limiting waste • Reduce, reuse, recycle • Minimising consumption of non-renewable energy • Less printables/print on demand/event apps • Venue accessibility/energy • Accommodation 	<ul style="list-style-type: none"> • Optimise social impacts • Free access • Inclusion • Fair staffing policies • Local suppliers

Table 43: Fields of action

Source: own analysis based on Moderer *et al.*, 2012:190, Musgrave *et al.*, 2009:5

The idea of using an approach based on a definition is to construct a well-founded, logical and comprehensive model from which relevant indicators can be derived. This approach resulted in 96 indicators.

Step 3 Indicator selection: Here, the appropriate indicators are selected by three sequenced criteria from the compendium:

- Criterion C:
 - o Assessment of the indicators in terms of their relevancy for the action fields of the sustainable event strategy (see below)
- Criterion D:
 - o Assessment of the indicators in terms of their relevancy for the definition
 - o Three core questions of the sustainable event strategy

- Criterion E:
 - o Assessment of the data availability of the indicators for the specific association event

Criterion C Action fields: As mentioned, the definition of an ideal sustainable event was broken down into 19 elements within three dimensions, the action fields. Each element represents a key concern of sustainable event management. The assessment is mainly done on the basis of the distilled targets of the action fields.

The selection of indicators occurs in two steps:

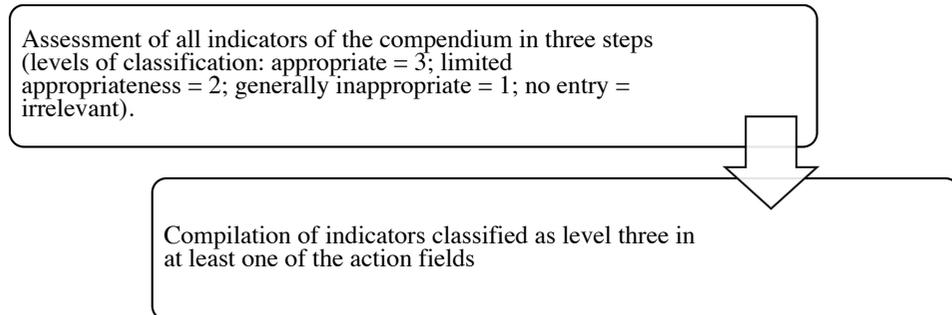


Figure 73: Indicator selection I

Selection was done generously in order to eliminate inappropriate indicators right from the beginning. This is relevant for several areas and many indicators exhibit a connection to these action fields. Here a more restrictive assessment was also chosen in order to list only those indicators with immediate relevance. A full selection of indicators in terms of their relevancy for the action fields of the sustainable association event strategy resulted in 96 indicators (see Appendix A3).

Criterion D Core Questions: The assessment of indicators in terms of their relevancy for the definition of the ideal sustainable event results in a crucial layer consisting of three core questions. Not only the relevancy of the action fields, which will be highlighted in the next step, but also the indicators' reference to sustainability is considered important here. The three core questions distilled from Musgrave's definition (2009:5), which forms the basis for the understanding of a sustainable association event in this dissertation, are used as benchmarks:

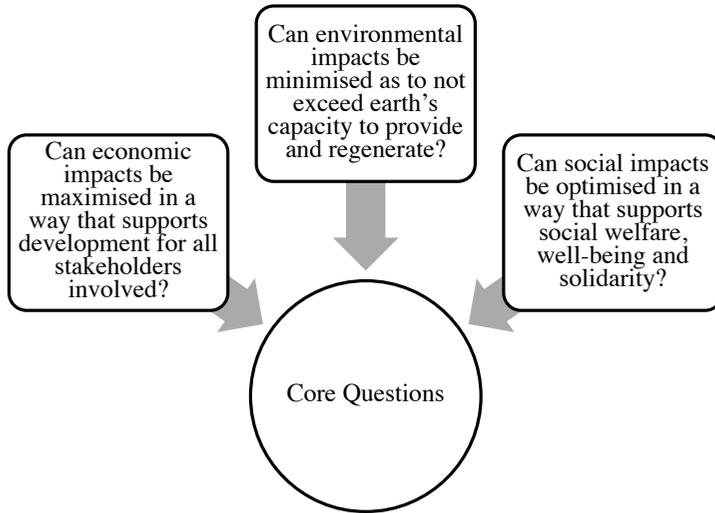


Figure 74: Three core questions

The selection of indicators then occurs over two steps:

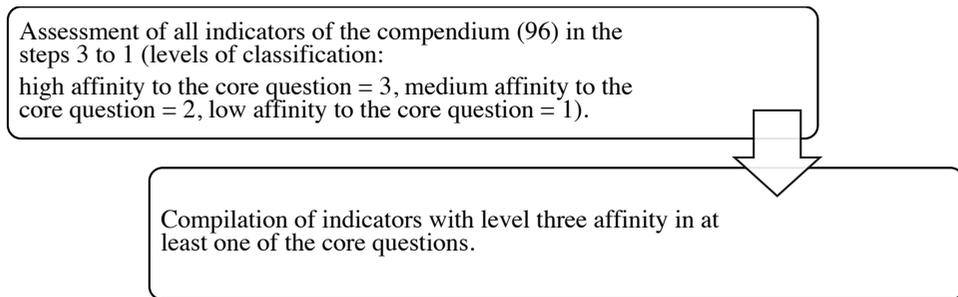


Figure 75: Indicator selection II

This step reduced the list to 63 indicators.

Every criterion produces a stronger definition, which means the proximate filters are only reached by indicators which have passed through the preceding filters.

Criterion E: Although data availability is seen as an essential criterion, it seemed inadvisable to lead with it due to the fact that the evaluation of data availability for all indicators of the compendium was perceived to be too complex to integrate into the everyday business tasks of event management. The process in this order considers form and content of indicators (such as the relevance for action fields and sustainability strategies) first.

Step 4 Back coupling: this incorporates the filtered indicators thus far into the action fields. The three aforementioned selection criteria has narrowed the number of indicators significantly. However, this necessary reduction does not immediately ensure an appropriate connection to the action fields mentioned in the formulated targets.

Step 5: Definition of additional selection criteria to filter appropriate indicators further

Criterion F: Limiting the short list results in more than ten indicators for some action fields, necessitating further reduction. A goal of no more than three indicators per action field is desirable.

Sustainability reference, i.e. the affinity to the core questions (number of core questions rated “three” as well as the sum of the assessment of the three core questions).

Criterion G: Relevance of action fields (sum of the relevancy points of all action fields). There is no hierarchy of criteria: indicators are selected on the basis of all three aspects equally. This approach of the three amended criteria reduces the number of selected indicators from 96 to 63.

Thus it seemed prudent to back couple the 63 filtered indicators to the action fields in order to demonstrate that they appropriately reflect them. This was done via two questions:

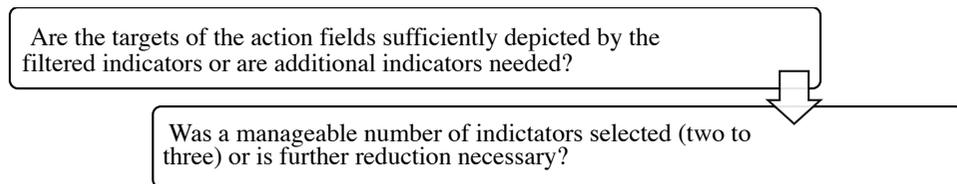


Figure 76: Final indicator selection

We can postulate at this point that the selected indicators thoroughly reflect a high number of targets in the action fields of an association’s sustainable event management strategy. Should this not be the case, i.e. important strategic targets are not reflected, then adjustments are necessary in form of additional indicators in the compendium or the development of new indicators. In other cases, the number of appropriate indicators for some action fields may still high, necessitating further reduction. These two aspects will be examined in the following.

Step 6 Exclusion/inclusion: this step involves the critical selection of remaining indicators that adequately and sufficiently reflect the association’s strategy.

Step 7 Special cases indicators: this step evaluates indicators of special importance unrelated to the action fields. Perhaps the back coupling of the filtered indicators with the action fields has shown that important strategic targets are not reflected sufficiently in the remaining indicators. But even in the case of action fields with a relatively comprehensive set of indicators it may be useful to include additional indicators might be useful that reflect the targets of the action fields in a special way.

Finally, accurate measures should be developed and made both quantifiable and visible in order to define indicators which document progress and achievement of aims.

6.5 Set of indicators

By applying the aforementioned steps, the suggested path for specific association events grows and evolves. Figure 77 summarises a few of the indicators identified in the primary research (expert interviews and the Delphi study). The full list can be found in Table 44, Table 45, Table 46 and in Appendix A3.

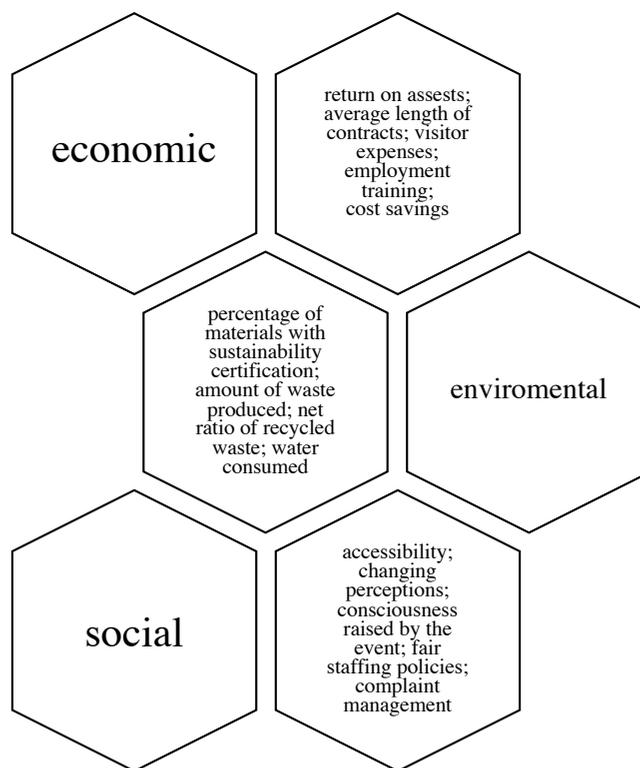


Figure 77: Example indicators

Source: own compilation based on Sherwood (2007); Fredline et al. (2003, 2005); GRI EOSS (2015a); BMU (2015); Köhler (2014); Sakschewski, (2016a); Wall and Behr (2010); Getz (2018, 2019); Holzbaur (2016); Oblasser and Riediger (2015)

Assessment frequency can be dictated by event frequency (e.g. annually, bi-annually). Each indicator was labelled with an abbreviation. The indicators were classified under the three dimensions of sustainability in accordance with the *triple bottom line approach*.

Economic indicators	Indicator No.
No. of businesses contracted locally	EC1
Average length of contracts / cost-benefit ratio	EC2
Cost savings	EC3
Return on investment	EC4
Stakeholder value	EC5
Sponsor expenses	EC6
Profitability, cashflow	EC7
Return on assets	EC8
Visitor expenditure	EC9
Visitor profile	EC10
No. and relationship between visitors and veteran delegates	EC11
No. of jobs created	EC12
No. of employees	EC13
No. of people trained as part of the event	EC14
Innovation, creative formats, projects and programmes	EC15
Relation between ecologically and socially responsible sponsors in relation to conventional sponsors	EC16
Value of destination coverage in media, changing perceptions	EC17

Table 44: Economic indicators

Source: own compilation based on Sherwood (2007); Fredline et al. (2003, 2005); GRI EOSS (2015a); BMU (2015); Köhler (2014); Sakschewski, (2016a); Wall and Behr (2010); Getz (2018, 2019); Holzbaur (2016); Oblasser and Riediger (2015)

As shown in the discussion on impact assessment, there are also established environmental indicators used as a layer for this set as well.

Environmental indicators	Indicator No.
Share of recycled products	EN1
Share of certified sustainable products	EN2
Longevity and re-usability of products	EN3
Paper saved through digital registration	EN4
Total energy consumption	EN5
Energy consumption per delegate	EN6
Share of energy from renewable energies	EN7
Total water consumption	EN8
Total water discharge by type and location of water supply	EN9
Volume of water used per attendee	EN10
Net water consumed (minus water recycled) per attendee/delegate/participant	EN11
Reconditioning of location (abundance before and after the event)	EN12
Share of regional food	EN13
Share of seasonal food	EN14
Share of sustainably certified food	EN15
Reachability by public transport or on foot	EN16
Certified sustainable accommodation	EN17
Indirect CO ₂ emissions	EN18
Direct CO ₂ emissions	EN19
Total emissions by source and amount (tonnes)	EN20
Amount of waste produced	EN21
Amount of landfill waste per participant	EN22
Amount of waste recycled (divided into plastic, paper...)	EN23
Total non-recyclable waste	EN24
Non-recyclable waste per delegate	EN25

Table 45: Environmental indicators

Source: own compilation based on Sherwood (2007); Fredline et al. (2003, 2005); GRI EOSS (2015a); BMU (2015); Köhler (2014); Sakschewski, (2016a); Wall and Behr (2010); Getz (2018, 2019); Holzbaur (2016); Oblasser and Riediger (2015)

The social dimension of sustainable events reflects the performance of the association with regard to its treatment of employees, suppliers, contractors and participants, as well as its larger impact on the local community. Successful social performance is important to ensuring an association remains licensed to operate in the long term. By its very nature, the assessment of social indicators may be subjective, especially when it comes to employee assessment. As discussed previously, one of the most important social indicators are perceptions and interests of local residents. Here, targetgroup-oriented communication is essential.

Social indicators	Indicator No.
Accessibility (accessibility persons with a disability or limited mobility [inclusion and barrier-free approaches])	SO1
Transport on site	SO2
No. of sessions related to the topic	SO3
Consciousness raised by the event	SO4
Perception of destination and venue	SO5
Creating/sponsoring a foundation, supporting social projects	SO6
Ethical and sexual diversity (throughout the organisation and the programme itself)	SO7
Contracting local suppliers, share of regional products	SO8
Satisfaction and motivation of employees	SO9
Sustainability training for staff and suppliers	SO10
Employee rights, labour law compliance	SO11
Diversity measures	SO12
Average length of employee contracts	SO13
Adherence to occupational safety regulations	SO14
No. of illnesses/accidents caused by the event	SO15
No. of working injuries	SO16
Presentation of event sustainability impacts to the community	SO17
Sustainability guidelines/reporting	SO18
Stakeholder involvement	SO20
Internal communication	SO21

Table 46: Social indicators

Source: own compilation based on Sherwood (2007); Fredline et al. (2003, 2005); GRI EOSS (2015a); BMU (2015); Köhler (2014); Sakschewski, (2016a); Wall and Behr (2010); Getz (2018, 2019); Holzbaur (2016); Oblasser and Riediger (2015)

Altogether, 17 economic, 25 environmental and 21 social indicators were aggregated into a sustainability performance model for association events and, finally, aggregated into the SAESW as presented in Figure 78 as well. As discussed above, they cannot be looked at separately due to important interdependencies and the fact that aims, action fields and measures influence each other. The action fields are assessed in relation to the specific event with regard to their strengths and weaknesses as well as opportunities and risks, and the overall model could provide a point of reference via reporting for decision-making and optimisation processes within the association, thus further improving the effectiveness of sustainability measures.

6.6 Sustainable association events steering wheel and model of sustainable association event performance

The *sustainable association events steering wheel* (SAESW) visualises the generic hierarchical schema for the verification, steering and optimisation of sustainable event management.



Figure 78: Sustainable association events steering wheel

Source: own display

Additionally, the process is illustrated in detail in the *sustainable association event model*. Sustainable development includes the idea of progress and change. Therefore, it is essential that the indicators serve as an early warning system for undesirable developments, rather than simply measuring the status quo.

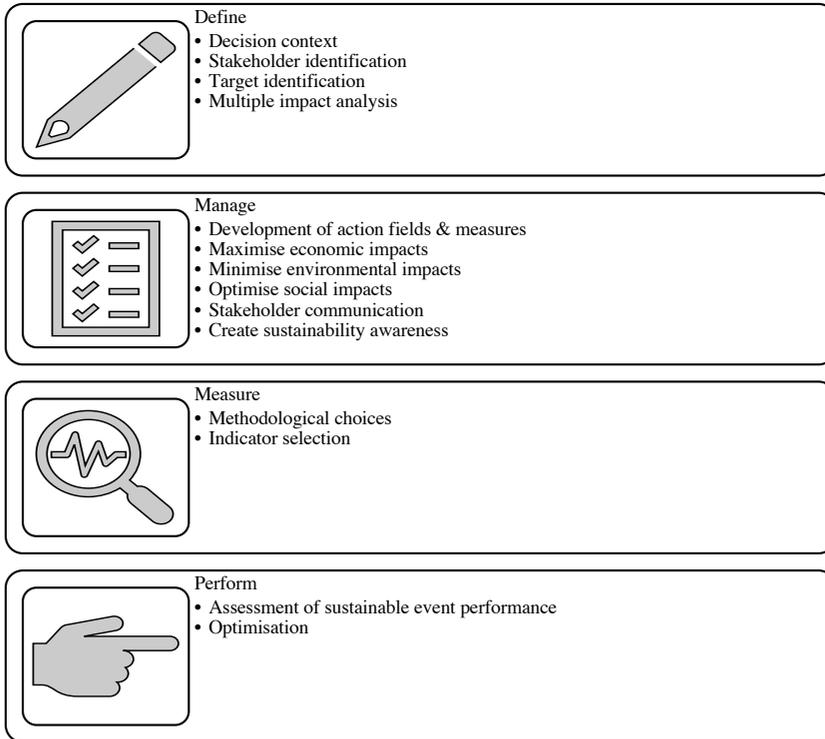


Figure 79: Dashboard for sustainable association event performance
 Source: own display based on the SAESW and Finsterbusch et al. (1983)

Figure 79 presents a model that was adapted from the traditional *Social Impact Assessment Model* developed by Finsterbusch (1983) for evaluating events.

The resulting ten stages of the SAESW were selected according to their appropriateness for evaluating the sustainable management of association events:

1. Event description
2. Identification of stakeholders
3. Multiple impact analysis
4. Target identification
5. Development of action fields and measures
6. Indicator development
7. Event planning
8. Event execution
9. Assessment and evaluation
10. Optimisation

Stages one to four contribute to building a holistic overview of the event, while stages five to ten specifically assess the impacts that may occur during staging.

Each stage of the model is also given a brief description:

1. Event description: Describe the association event’s characteristics including type, location and time, activities planned, target group, geographical setting, budget etc.

2. Identification of stakeholders: identify relevant stakeholders, their requirements/demands, and appropriate communication approaches
3. Multiple impact analysis: identify the range of potential economic, environmental and social impacts the event may have on the identified stakeholders using methods like brainstorming by experts, organisers, suppliers, and community representatives
4. Target identification
5. Development of action fields and measures as shown above
6. Identify the range of appropriate indicators relevant to the specific event
7. Pre-event stage: association event planning
8. Event execution
9. Post-event stages: assessment of sustainable event performance by adequate methods. Evaluation of the perceived impacts of events is also carried out post-event. This stage aims to determine the overall acceptance of impacts/effects of the event among stakeholders. Evaluation requires thorough data collection and analysis, as shown in Table 44, Table 45, Table 46 in order to draw conclusions regarding the positively and negatively perceived economic, environmental and social impacts.
10. Event optimisation: this stage assesses whether targets have been achieved. New targets for future events and measures requiring adjustment should be discussed with all relevant stakeholders. Feedback and findings should be communicated (via an integrated, target group-oriented communication strategy) to all relevant stakeholders. This is an opportunity to develop future strategies that can capitalise on positive impacts and ameliorate negative impacts, leading to the ideal aim for sustainable events formulated by Musgrave *et al.*, i.e. maximise economic, minimise environmental and optimise social impacts.

Integrating concepts from the established field of social and environmental impact management, from financial approaches and the emerging literature on impact measurement of meetings and events, the SAESW aims to bridge the gap between theory and practice and ease the integration of a multi-dimensional sustainable association events management approach. It is rooted in the research of scholars such as Sherwood, Holzbaaur, Oblasser and Riediger, Große-Ophoff, Fredline *et al.*, Köhler, Holmes, Musgrave *et al.* and Getz. The SAESW is designed to help project, evaluate and optimise the sustainable impacts of an association event. These guidelines can help event managers, associations or agencies to integrate sustainable measures in all steps of the event management process, including targetgroup-oriented communication.

These recommendations must be understood not as a result, but as a process. Moreover, as the literature review has shown, clear communication and integration of all stakeholders enhances the level of acceptance. A top-down approach, formulated by the board as a vision and anchored as a strategy in operations, can also improve the success of the sustainable event (see Figure 68).

6.7 Recommended actions

In order to develop the action fields and specific measures for an association event, the following basic questions should be answer to begin developing an overall sustainability vision for events (Oblasser and Riediger, 2015:96) (compare Table 39):

1. Why do we as an association want to create sustainable events?
2. What do we hope to achieve with this?
3. How and with which internal processes, resources and internal/external partners do we hope to achieve these aims?

4. Are there specific fields of actions which are the focus of our association?
5. How do we communicate the success of our sustainable event?
6. How can we ensure that our events are becoming more sustainable event by event? How is progress documented?

Based on the findings of the literature review and the primary research, the following recommendations can be given:

Column	Fields of action	Measures		
		Pre-event	During event	Post-event
Environmental	Waste	Reduce	Reuse	Recycle
Social	Catering			Donate food and materials, leftovers
Environmental / economic	Printables, information	Go digital for information and registration	Go digital, remove waste, electronic signage and displays, event app, use recycled paper when possible (printables, toilet paper, napkins, tickets, flyer, bags...)	Event app for evaluation
Environmental / economic	Materials/ procurement	Procurement, suppliers, non-disposable items, worthless presents for speakers	Bulk packages	
Environmental	Mobility	Car sharing, destination choice, venue, availability, green ticketing partner, material transport (efficiency and degree of capacity utilisation), supplies, plan transfer routes	Transport on site	Offset emissions
Environmental	Venue	Accessibility, clean energy, LED lights, recycling programme, green cleaning products		
Environmental/ economic / social	Suppliers	Local, sustainable, with certifications, longer-term contracts (better prices, support local businesses), reduce costs		
Environmental/ economic	Catering	Bulk packages, more vegetarian meals, water fountains, re-usable water bottles for those without, necessity planning, no. of attendees according to meals, reduce food waste, local/ regional/seasonal/ fair-trade food, religious aspects, no plastic cutlery/crockery		

Social	Communi-cation	Transparent and edu-cational for dele-gates/exhibit-ors/sup-pliers/ stakeholders, also in-ternal communication and education, further training for employ-ees	Inform about sustainability strategy	Publish best practices, PR coverage
Economic	Reporting	Planning	Measurement	Evaluation
Social		Employee / staff planning	Barrier free, inclusion, di-versity	
Environmental/ economic	Office	Energy		
Environmental	Accommod-ation, energy, water, waste	Short routes to venue, access-ibility, certi-fied, local transport		

Table 47: Recommended actions for sustainable events

Source: own overview, based on Oblasser and Riediger (2015:96ff.); Holzbaur (2016); Köhler (2014); Holmes (2015); Jones (2014); BMU (2014)

6.8 Summary and conclusions of Chapter 6

This chapter discussed the impacts of events and the challenges posed by indicator development. To address these challenges, a process was proposed for developing an indicator set according to the definition of sustainable event management put forth by Musgrave *et al.* (2005:9). Possible action fields, indicators and measures were shown for this approach. Finally, the chapter concluded with recommended actions for sustainable association event management.

The SAESW supports a feasible approach for hands-on training and could be easily applied at the association level. Although no model for such an individual and complex phenomenon can be perfect, the SAESW could be a useful tool for examining the actual sustainability performance of the specific event. It strives to assess sustainable event performance in an integrated way that offers guidance for decision-making and strategy planning. The model allows for the planning, integration, measurement and monitoring of sustainable event performance. Baselines and benchmarks can be established through assessments and to better define what sustainability means to the association and its stakeholders as well as measure what matters to sustainable association events. It can also show progress over different events or years, and can pinpoint where optimisation is needed.

Core and supplemental indicators can be used to reflect on an association’s achievements towards sustainable event performance and influence future action. The SAESW integrates the three dimensions of the *triple bottom line approach* and anchors an association’s activity fields and indicators firmly within the framework of the sustainable event definition of Musgrave *et al.* (2009:5). In this way, the model presents a mixture of indicator data in absolute terms as well as normalised data, serving the needs of different stakeholders, but, most important, supporting a holistic and multi-dimensional approach for integrating, measuring and optimising sustainable association event management. Thus it engages an event’s delegates, employees, suppliers, press and host community simultaneously. The SAESW should be a reflection of the goals of a sustainable association event as well as its strategic plan, and it requires a baseline of feasible targets. Advantages such as cost savings can be achieved through greater efficiency, conservation measures for energy, water and waste, as well as changes in materials and procurement, but enhanced brand appreciation, employee motivation and satisfaction along the

entire supply chain is also possible, which finally produces the aspired-to sustainable event strategy that maximise economic impacts, minimise environmental ones, and optimises social ones. With that, the aims and objectives of this research have been achieved.

7 Conclusions and future work

This chapter will conclude the dissertation, summarising the findings of the research which led to the proposed model in Chapter 6, and critically discuss the contributions and limitations of the study, leading to possible future research areas and a future outlook.

7.1 Conclusions and recommendations

The scope of this dissertation was to conduct a study of sustainability in the German meetings industry in order to develop a model for sustainable association events performance. The preceding chapters have shown how this goal was ultimately achieved by accomplishing the following objectives:

- Discuss the terminology of sustainability and corporate social responsibility in the context of event management in the German meetings and events industry
- Examine the status quo of acceptance, implementation, and implications of sustainable event management in the meetings and events industry
- Identify organisations' objectives (motivations / drivers / barriers) for sustainable event management approaches
- Determine the factors associated with effectiveness criteria for sustainable events management
- Use the findings to define and develop a sustainable event management model in order to facilitate greater sustainability in the meetings management process.

The dissertation began with a discussion of the terminology found in the field of sustainability, sustainable development and corporate social responsibility in the context of meetings management in the German meetings and events industry. Relevant literature was reviewed, summarised and compared. Terminology was discovered to be vague and confusing, as were available certifications, standards, and guidelines. Seizing upon the idea of Große-Ophoff (2016:133) to adapt the “striking label of *green meeting* or *green event*”, this study also recommended a change in terminology to *sustainable* or *responsible event* or *meeting*. As Große-Ophoff already wrote, this would follow the *United Nations Environment Programme* (2009/2012), which concentrates not only on environmental issues, but considers sustainability overall holistically using the *triple bottom line approach*. As the primary research has shown, environmental issues are primarily connected to sustainability in the events industry (see Chapter 5), whereas economic and social aspects play a minor role. Using a more specific term would support a more holistic view and raise awareness for the *triple bottom line approach*.

Next, the status quo of acceptance, implementation, and implications of sustainable event management in the events industry was analysed. This was accomplished by secondary research in form of a literature review and concluded that, despite there being trend towards sustainable development in many areas of our everyday lives, sustainable event management is still rare and not implemented holistically. Moreover, environmental issues are mainly in the focus of current efforts, which leads to the aforementioned assumption that social and economic issues are not considered equally. The literature review also helped to accomplish the third objective by identifying the organisations' objectives for sustainable event management approaches. The analysis was supported by the theories of Finsterbusch and Gifford (*Dragons of Inaction*). The empirical study is rooted in this comprehensive analysis of literature and lead to the specific questions and answer possibilities used in the expert interviews, the online Delphi study, and the questionnaires for the German Scout Association.

Building upon the results and findings of both the primary and secondary research, the factors associated with effectiveness criteria, i.e. the indicators for sustainable event management, could be distilled and connected to the necessary action fields and measures for sustainable events management in Chapter 6. This resulted in 63 indicators. The aim was to create a short-list selection of indicators with a limited number of mandatory and optional indicators via a definition-based approach (i.e. Musgrave *et al.*, 2009). The introduction of a core set helps keep the indicator set manageable, whereas a larger pool allows the inclusion of additional indicators that enable associations to integrate a more comprehensive and differentiated assessment of sustainable event management. It resulted in 17 economic, 25 environmental and 21 social indicators. These were distilled from the literature review and also rooted in the statements of the experts in the primary research. These findings were used to develop a *sustainable association event management wheel* (SAESW) which can help associations define, implement and optimise sustainable event management strategies, leading to a multi-dimensional, holistic model.

As Holmes (2015:2) wrote, “developing sustainable events is a way of approaching event management from a more holistic perspective that can benefit key event stakeholders as well as communities affected by the event.” Here, the SAESW can help to structure the relevant information and strategies for the different parties and stakeholders. From a scientific point of view, such a model can also generate additional insights and enhance progress by compiling and analysing existing knowledge from different models and integrating them into a higher context (Köhler, 2014:255). In practical terms, such a model structures the complex environment and existing decision-making strategies better than pre-existing models (Köhler, 2014:255, Kirsch, 1984:760) for the niche examined in the study (association events). Here, the SAESW can help event managers to develop a sustainable event management strategy, to implement it with regard to a specific association event, and to optimise this performance continuously. This must be seen as a process of progressive transformation of event management in economic, environmental and social dimensions. However, this kind of sustainable event management cannot be implemented unless organisational strategies heed additional considerations regarding communication, procurement (i.e. access to resources), stakeholder interaction, and the cost-benefit ratio. Hence, not only environmental protection, economic and social benefits are necessary, but also a focus on operational strategies, which involves a multi-dimensional impact analysis, stakeholder participation, creation of awareness towards the topic of sustainability (also along the supply chain), communication, information and knowledge management, training and education, implementation, monitoring and evaluation and, finally, optimisation and lessons for future events. As the research has shown, target group-oriented communication is essential to supporting an integrated sustainable event management approach.

The preceding chapters have shown that this study fulfills both requirements. We can conclude that the tool developed can help to evaluate and implement objectives and strategies of sustainable event management. Demand for this drove the emergence of the various guidelines and certification schemas described in Chapter 2 and 3. These certifications or guidelines are standardised tools for assessing sustainability objectives and methods in the meetings industry. However, given the variety of events and conditions (business vs. leisure, indoor vs. outdoor, regional conditions and facilities, different levels of stakeholder involvement) associations must naturally pursue different aims and strategies. Therefore, the SAESW developed here addresses this need for a customisable and adaptable tool in the association events industry, as general indicators are insufficient to the task.

7.2 Contributions of research

With the developed model, this dissertation contributes theoretically, methodologically and practically to several issues in the area of event management.

We learned from the secondary and primary research (see Chapters 2 and 5) that the main understanding of sustainable event managements is relegated mostly to environmental aspects. Holistic understanding in line with the theory of the *triple bottom line approach*, i.e. sustainability in terms of economic, social and environmental dimensions, is rare. When it comes to terminology, existing definitions and requirements on sustainability, sustainable development and corporate social responsibility are often seen as too scattered, vague and confusing, or are used interchangeably like buzzwords. Event managers feel this also applies to the choice of certifications, schemas, standards and guidelines as well as their overwhelming complexity and details. As a result, they are often unsure of where to begin for a medium-sized association event lacking the dedicated and skilled teams or departments required to implement sustainability practices as is the case for the Olympic Games or other mega events. Benchmarks are also regarded as difficult due to the complexity of the industry and varying nature of events. We can conclude that not only the identification of impacts is important for developing indicators, action fields and measures, but also the assessment thereof, which can eventually produce the necessary optimisation and recommended actions for future events down the line. This empowers associations to develop their own benchmarks. The multi-dimensional/holistic approach and concentration on only a few core and supplementary indicators meets the demand for a flexible tool. Moreover, a definition-based approach fosters a holistic view and includes the necessary action fields with flexible measures.

Development of this tool involved several stages:

- Gathering an overview of literature, identifying relevant theories, models and guidelines
- Narrowing down the industry niche
- Categorising different kinds of events
- Identifying adequate models to assess motivation, i.e. find barriers and drivers, in order to close the gap between sustainability awareness and real behaviour
- Distil cornerstones such as definitions for sustainable event management as well as action fields and measures
- Illustrate the current state of research
- Generate insights for a thorough understanding of the association event industry, its needs and the current state of sustainable events management implemented
- Identify and discuss indicators
- Critically discuss existing approaches, including the deduction of recommended and appropriate actions
- Combine theoretical and empirical results into a model which integrates the theoretical and methodological insights that were generated
- Develop a model of integrated sustainable event management that considers a holistic approach, including target group-oriented communication
- To ensure broad applicability, no specific measurement instruments were developed, but rather assessment guidelines and recommendations

This model avoids the adaptability pitfalls of rigid or overly complex measurement instruments such as ISO 20121 or GRI EOSS. The events industry is resource-intensive, leading to both positive and negative impacts. However, association events can also advance sustainable development not only within the organisation, but also for stakeholders and the host community

and destination. Naturally, this effect might be magnified and generally more visible in the case of mega events, association events – whether a scientific conference, the federal conference of the DPSG or even its Pentacost weekend discussed here – will most assuredly impact the destination and its stakeholders in numerous ways. Thus, a flexible and useful instrument to assess these impacts as well as optimise events in terms of their economic, environmental and social benefits is appealing for practitioners and can help to define future event strategies and manage the outcomes. This is also the practical aim of the study. The developed SAESW goes beyond existing models, as it combines classical event management with sustainable action fields and measures, while also focusing on the supply chain and target group-oriented communication. Furthermore, research has underlined the fact that both the implications and optimisation cannot occur in a vacuum, as the different action fields relate to and influence each other.

This is also summarised in Table 48, which offers an overview of recommended actions as well as the desired targets for sustainable association event management.

Aims	Measures
Economic impacts	
Stimulate visitor expenses	Develop an event-related network and co-operation between regional enterprises and organisers
Animate visitors to extend their stays at the event destination	Integrate the event into the marketing communication of the destination
Keep event-related expenses in the destination	Implementing event-induced actions at the destination before, during and after the event
Social impacts	
Foster exchange between host community and visitors	Create event-related offers for locals (e.g. reduced ticket prices)
Improve destination's image	Present the destination within the scope of the event's marketing communication
Environmental impacts	
Create awareness towards the topic of SEM	Host topic-related side events before, during and after the event; hybrid events
Reduce CO ₂ emissions	Increase the share of regional suppliers/companies for event planning and implementation

Table 48: Overview of sustainable event optimisation measures

Source: own display based on Chalip (2006, 2004), Köhler, 2014; Wall and Behr (2010)

Table 48 shows that the development of an integrated concept of impact identification and optimisation by indicators, which considers the reciprocal relations between economic, social and environmental event impacts as well as their synergies, is necessary for providing optimal support for holistic sustainable (association) event management (Köhler, 2014:274).

The insights gained from the study arose from a comprehensive overview of the relevant literature in the field of sustainable event management, covering various disciplines such as economics, social sciences, environmental policies, destination management, and tourism marketing. Through strategic integration into management, operations, communication and stakeholder processes, they also represent an instrument with which the numerous impacts of sustainable association events in terms of the *triple bottom line approach* can be measured and optimised continuously.

The SAESW therefore can serve as a tool for practitioners, event managers, decision-makers and associations to implement sustainable event management strategies in a profound manner, along the supply chain, and with target group-oriented communication. It supports associations in designing a strategy to adopt and integrate sustainability as part of their objectives and in

defining targets and indicators for their events. Thus, it fosters the development of adequate action fields and measures specifically for individual events. This has the potential to narrow the gap between sustainability awareness and sustainability behaviour.

7.3 Limitations

First, the different empirical studies will be examined before the SAESW is critically assessed. Afterwards, recommendations for future research will be given.

Research has shown that there are several challenges facing sustainable association management for events. The association events industry is very complex and the events themselves are broad and varied. Depending on the event, the supply chain may be convoluted as well. Compounding this situation – demonstrated in this research and by various scholars such as Große-Ophoff, Holzbaur or Oblasser and Riediger – is the large number of guidelines, certification schemas, standards and norms, creating a confusing situation rife with different parameters, voluntary and mandatory approaches, requiring external or internal approval etc. Moreover, the event business is a fast-paced business usually lacking either the manpower, time, skills, budget or all of the above for complex documentation and evaluation of sustainability. Some large associations such as the *International AIDS Society*, the *United European Association of Gastroenterology*, or the *International Cardiology Society* have their own internal event departments. Nevertheless, even dedicated project teams at professional congress organisers must wrestle with the aforementioned challenges. These complex challenges require complex, multi-dimensional skills for assessment that can consider environmental, social and economic issues equally (Lamberti *et al.* in Raj and Musgrave, 2009:120).

The aim of this study was therefore to develop a model for sustainable association events that is easy to manage in daily business operations, offers insight into the impacts of the different event areas, and allows for the optimisation of efforts (and thus event performance) as well. Both primary and secondary research helped to distil the most appropriate action fields, measures and indicators as well as the necessary steps to implementing and optimising sustainable event management. As Wall and Behr (2010) already wrote, the core targets cannot be determined alone, but in combination with internal and external stakeholders. This underpins the importance of communication, which was the reason for its emphasis in the integrated sustainable event management model (see Chapter 5).

The methods used in the present study appeared to be most suitable for accomplishing the purpose described here. However, the research strategy and the way in which it was selected have implications for the validity, objectivity and reliability of results (see Chapter 4, Finn *et al.*, 2000; Saunders *et al.*, 2016; Bryman and Bell, 2003).

First, the Delphi method has certain disadvantages which were discussed already in Chapter 4. While the number of study participants is rather small (18/17), it is important to remember that the Delphi analysis is qualitative in nature. Having the core ideas “summarized in a short questionnaire, results [become] measurable in another way which [leads] to more validity” (Quinlan, 2011:337). These data quality issues must be considered to confront possible bias and ensure a high level of reliability and validity of the data obtained.

Furthermore, the niche defined and examined here (association events) might be regarded as too narrow as well. As discussed above, due to the various types and sizes of events, the event impacts in this industry are broad and vary by both frequency and type. Here, the focus was on

short-term, post-event impacts occurring at a destination after a meeting has been held. Despite the narrow scope, it is important to note that event parameters can vary greatly, with delegate numbers ranging from 150 or fewer to several thousands, and from smaller indoor meetings to huge outdoor events such as the DSPG Pentecost event described herein. Due to its focus on only one niche segment of the meetings and event industry (i.e. association events) as well as the low sample size, the study is not representative for the entire industry. The majority of experts also work in Germany, which by necessity narrows the scope down to this perspective only. All experts who participated in the study are knowledgeable about the Germany events industry and have professional networks therein.

Another point of criticism may be that some interviewees measured their own association/company, which comes with the risk of biased respondent behaviour, especially in terms of social and economic criteria (Große-Ophoff, 2016:124). Additionally, interviews were conducted in various ways (i.e. telephone, personal, email, Skype), resulting in different interviewer biases such as response rate, setting, or language. This was taken into consideration in the preparation and testing of a semi-structured interview guideline which was sent to all study participants beforehand. Therefore, the initial starting point was the same for all interviewees. During the interviews, the researcher also tried to focus on each interviewee as an individual in order to create comparability in the subjective experience of the different interviews (Köhler, 2014:258; Köhler, Bortz, Döring, 2006:326). These aspects were taken into consideration in order to ensure a transparent and traceable process. The expert opinions were incredibly valuable for the development of the SAESW, which also incorporates recommendations from the literature (Köhler, Rossiter, 2002:327) in order to prevent a potential loss of important content from using quantitative-statistical criteria only. This also ensures reliability as well.

In contrast, the number of questionnaires collected at the DSPG Pentecost event was so large that a group of university students was needed to support on-site. Naturally, different characters, experiences, backgrounds and approaches led to different interviewer attitudes. This was addressed by detailed briefings beforehand and feedback discussions after the first day to reflect and prepare for the second day. Some adaptations, such as positioning of the booth, placement of researchers, and approach to speaking with respondents were implemented for day two. Distributing questionnaires during the event minimises the risk of forgetting or false memories, but requires a certain number of support interviewers as stated above.

Given the lack of research and emerging studies focused on association events, this research was essentially exploratory in nature. Therefore, qualitative approaches were selected as the most appropriate method for the empirical studies in order to achieve sufficient depth and richness of data. In addition, a qualitative research method “allows flexibility, which permits emerging data to be iteratively incorporated into the analysis” (O’Brien, 2006 in Mair and Jago, 2010:85). However, a mixed-method approach was applied after conducting the survey with the DSPG. Here, even more than in the expert interviews, missing data was an issue. Some answer fields were left blank, meaning that a higher data quote was possible with interviews for every person conducting the survey. Relying on recommendations from the literature, we decided to treat blank fields only as “missing” when no value was entered in any of the given categories (Köhler, 2013:275; Stynes and White, 2006:11).

In order to ensure encoding reliability, the data from the questionnaires was entered by different coders, as the sheer amount of data was relatively high and therefore susceptible to error. A pairing approach was applied here, i.e. two coders working together to double-check entries. It can be said that qualitative approaches used due to their not standardized open approach require other methods of reliability checks, for example intercoder respectively intra-code reliability

(Köhler, 2014:259) would have been possible. Intercoder reliability refers to the extent which code from two or more coders matches for identical contents, whereas intracoder reliability refers to the extent which a single coder codes identical contents at two different points of time in the same way (Köhler, 2014:259, Diekmann, 2008:592f.). Additionally, intracoder reliability could be proven, as the interviews were evaluated at two different points of time but used specific and identical theme complexes as starting points for analysis. The evaluation also demonstrated the same results for the interviews. Interpretation scope was limited, as only expert knowledge in the form of facts for the particular research object were extracted and no interpretation or classification from a personal point of view of respondents was necessary. Accordingly, we can assume that an analysis of the data by different coders would lead to identical results. Based on the lack of additional coders, such a test of intercoder reliability was not possible for the interviews, only for the DPSG questionnaires.

With regard to the DPSG event, the research design, especially the data collection beyond the questionnaires, must be mentioned. Due to a lack of authority, time and data access, no holistic and profound collection of data in terms of waste, water, and energy usage was possible. This was an issue that occurred two years in a row and it demonstrates that not only good preparation and a contact person with sufficient authority are mandatory beforehand, but also access to a reliable group of contact persons, especially for an event of this size, is essential on-site during the event (Köhler, 2023:276; Schlenker, Getz and Foley, 2010:8; Jones *et al.*, 2008). This might have been addressed by exploratory pre-studies where the data and its sources would have been collected well beforehand and used as a benchmark to measure progress over time. Should the model be tested at a future DPSG event, a standardised assessment for multi-dimensional impact analysis would be an option to save time and money as well as to limit the risk of data access, in order to ensure validity.

When it comes to economic effects, these might be fragmentary as well, due to missing data on the primary and secondary regional effects of visitor spending. This was also an issue encountered by Köhler in the study on music festivals (2014). On the other hand, it might be easier to collect quantitative data compared to measuring social impacts, which might lead to an economic emphasis. Here, interviews should take place with the management team and questionnaires could be offered again during the event on-site in order to measure the performance of their implemented sustainable association event management. The scouts volunteer their personal time for the association, so this motivation might be an issue. However, in terms of practicability, research effort tends to drop over multiple events, as the measurement instruments need not be developed anew each time, but only require modification or optimisation (Köhler, 2014:260).

Another limitation of this research is the theoretical approach. Despite the connection to the German Scout Association, practical application of the model was not possible due to time and data availability constraints. In addition, the sudden emergence of the Covid-19 pandemic and the resulting lockdowns (including the cancellation of all events) destroyed any hope for a practical testing phase in 2020. Application for future events is not out of the question, however.

When it comes to the development of the model, the approach applied here might be seen as a limitation as well. We discovered that complex indicator systems are only somewhat adaptable to the specific research object here, as the impacts might vary depending on location/destination where an event occurs. Also, the target group (here: scouts in their free time) differs from business delegates at a conference who pay an entrance fee, for example.

As already written, the various measurement and evaluations schemas, standards, guidelines and certifications often seem too complex for association events, but we also felt that the model intended for development has a risk of suddenly becoming too muddled and unclear as well. Although the selected indicator set is based on the literature review and the findings from the primary research, it might still involve subjective decisions or not fit for all association events. We attempted to minimise this potential limitation by using a definition-based approach, however.

The challenges discussed in Chapter 6 might be limitations to the SAESW as well. Dealing with uncertainty, different measurements methods, different stakeholder interests, or measurement tools that are highly individualised to events but also have some general applications for all events for comparability purposes might be issues here. Another possible point of critique of the model may be that the weighting of identified indicators is imprecise. One could argue that the weightings used reflect priorities according to the opinion of experts and may thus suffer from a higher degree of subjectivity. In order to acknowledge these limitations, we must ensure the ability to generalise the results to a broader population. Accordingly, the results from this thesis can be considered a basis for further research in this regard.

Following the main aims of the strategy (according to the sustainable event definition from Musgrave, 2009:5), which are to maximise the economic impacts, minimise the environmental impacts, and optimise the social impacts, the action fields in the economic focus include production and resources, accounting and regulation, consumption and use, labour and welfare, technology and infrastructure, wealth and distribution, and materials and procurement. The environmental focus includes materials and energy, water and air, flora and fauna, food and beverage, place and space, construction and location, emissions and waste, and mobility and accessibility, while the social focus incorporates engagement and identity, health and well-being, and communication and transparency. Measures in these fields of action can support the organisation and subsequent optimisation of a sustainable event. Accordingly and following the steps introduced in the SAESW (define, manage, measure and perform, see Chapter 6), sustainability can be integrated into the event management process and the performance of events in this regard can be measured and, in the best case, optimised from event to event. This can lead to new and necessary benchmarks. The optimisation process can also affect the selection of indicators by adapting them to unique events. This ultimately produces a holistic and balanced approach.

Despite the limitations discussed here, this exploratory study supports the findings in the secondary research that, at least in the German meetings industry, the focus is largely on environmental aspects when discussing sustainable event management. In order to implement the SAESW, the concepts must be considered holistically in a multi-dimensional impact assessment in order to cover all dimensions of the *triple bottom line approach*, a view which is also supported by Große-Ophoff (2016).

Choosing the methods discussed in the preceding section to answer the research questions resulted in both positive as well as negative issues. Some older print sources were used due to a lack of alternatives, as were some internet sources. This has been highlighted where necessary in the dissertation. Moreover, while not completely novel, this research topic has not been assessed thoroughly in a scientific fashion, which is also reflected in the number of publications, i.e. the available literature. Essential studies date back to 2007 – 2009, and an increasing number of publications could only be seen from 2014 onwards.

As the sustainable organisation of events gains more attention in practice, which can be seen in the development of industry-related guidelines (BMU) or initiatives such as the Green Music Initiative, Julie's Bicycle, or *fairpflichtet* from GCB, we can assume that greater effort will be seen in sustainable event management assessment, resulting in better data availability in the future.

Moreover, research revealed that the mixed-method approach used in this study was the correct choice. Exclusively quantitative primary research would not have produced adequate study results, as not enough persons with relevant experience in sustainable event management could have been selected in order to reach a representative number. The content analysis based on Mayring allowed for complex insights to be distilled from the expert interviews, which was flanked by the quantitative survey of DPSG event participants. The analysis method used for the interviews supported efforts to answer the research questions. A significant amount of text was successfully reduced to a necessary minimum of essential sentences from the interviews. While we cannot neglect the fact that quite a bit of content was omitted via the summary process, nevertheless many points made by the experts were taken into consideration for the development of the model.

Some of these limitations provide opportunities for future research, which will be discussed in the following.

7.4 Future research

As already written, the insights from the expert interviews, the online Delphi and the questionnaires from the DPSG event were used for primary research purposes and helped to develop the model, but the applicability was not proven in a case study. This is certainly an option for a post-Covid event, as it would allow researchers to gather measures for benchmarking, test the model, and identify areas of improvement.

Data collection for the Pentecost event (beside the questionnaires) could be improved upon as well. Due to a lack of authority and time, no holistic and profound collection of data (specifically waste, water, energy usage) was possible. While the focus here would have been on environmental aspects only, data on economics or social issues were also not available for collection. As this was the case not once, but twice, preparation and, especially, communication and prior goal-setting with the board are areas with immediate potential for improvement.

Based on the know-how of the board and the association's internal organisers, another consideration is whether the Pentecost event is the right choice or if another event such as the *Bundeskonferenz*, the association's federal conference, would be a better option for a case study. It differs in the number of participants, location, goals and addressed target group. As it became clear that scouts have a marked focus on environmental and quantitative key indicators, which does not necessarily suit the implementation of a holistic, multi-dimensional approach to sustainable event management, applying the SAESW to a different association event could be a fruitful exercise.

Comparing the results of a range of different association events over a certain period of time would also be required in order to collect sufficient data for performance enhancement, benchmarking and improvement. Naturally, this data would only be as good as the inputs used to calculate. Thus future research must identify the most appropriate indicators to be included in the model. As already stated, these should be tailor-made and developed in consultation with

relevant stakeholders, and they can be fine tuned with the addition of mandatory and optional indicators. A holistic, multi-impact approach is key to determining whether the SAESW applies to different event types and, if so, under what conditions. International associations tend to have international boards, committees, members and event delegates: this should be considered and potentially used for broader research and deeper insights on regional or cultural differences. Testing for appropriateness at other event types outside of the realm of association events could contribute towards developing scenarios applicable for the whole event industry. The insights gained via these efforts could be used to produce new theoretical results or further advance the SAESW.

To compare country-specific differences, research into different countries could be conducted in order to identify gaps in the sustainability practices of German event managers. Quantitative research in the form of a standardised online survey could lead to greater participation and thus representativity.

This work has investigated social- and environmental-psychological factors for narrowing the behavioural gap, which supports the creation and formulation of persuasive target group-oriented communication. The evaluation of parameters by both responsible participants and operative event management are essential for the successful implementation of sustainable event management measures and could be an object of further research.

The current debate surrounding Agenda 2030 and the sustainable development goals should be connected to future research in sustainable event management as well. These should be included when developing the SAESW further. Moreover, the development of new indicators and different measurement approaches would be advisable in any further development process. As discussed earlier, Agenda 21 concluded that one of the barriers to a more sustainable future was the lack of relevant and accessible information upon which to base decisions and measure progress (Lawrence, 1997). This is one of the barriers which should be tackled by the SAESW.

The impacts of the events industry can be connected in the *triple bottom line approach*, which covers the three dimensions of sustainability. To meet the demands of sustainability, a model for integrated, holistic and multi-dimensional evaluation of association events is required as a source of good guidance for decision-making, strategy planning and improvement of the SAESW. A set of indicators was developed to support this approach. Here, the *triple bottom line approach* was pursued, and it would be an option to divide it into further aspects, or expand it to include additional ones such as tourism, region, culture or education. For example, researchers could study how regional and local farms and businesses benefit from corporations through an event by, for example, using leftover food as animal feed or integrating the local supply chain. This could help expand the impact-centered view to include a strategic component, which could in turn be used as a starting point for event managers, associations and destinations to develop common sustainability concepts. Moreover, a focus on the supply chain itself would be interesting, as it holds enormous potential for improved sustainability. As Hall (2012) and Köhler (2014) conclude, existing sustainability approaches rooted in the TBL model still put economic growth in the foreground, although they also pursue environmental and social targets to a lesser degree. The importance of natural capital is neglected, a key consideration in the sustainable use of natural resources and the concept of intergenerational justice. The alternative would be a steady-state level, an approach which could be the focus of future research, too.

The SAESW does not offer an exhaustive list of indicators, as there might be different integration approaches for different events. However, an alternative model focusing on the niche of

association events was the goal. Recommending an integrative, communication-oriented approach supports a holistic view. However, additional approaches such as the Sustainability Balanced Scorecard or materiality analysis could be integrated as well. The identification of various impacts resulting from an event is essential to change the way events are organised and to close or at least narrow the gap between sustainability consciousness and behaviour. Strategic optimisation based on a methodical instrument can support these efforts. As the discussion has shown, there are several ways to develop the model continuously and demonstrate its applicability for other events.

7.5 Summary of Chapter 7 and outlook

This study reveals that all aspects of sustainability – environmental, economic, and social – are crucial for the events industry, as it is a particularly resource-intensive industry and with the potential for wide-ranging impacts. As was shown in the literature review and the primary research, sustainability is becoming increasingly important in general (Große Ophoff, 2016) and the term “sustainability” is garnering more attention in the events industry in particular (Holzbaur, 2016). Despite the fact that the topic is gaining ground in the industry and is seen as an important strategic instrument (Große-Ophoff, 2016:131), holistic sustainable event management concepts and experiences are few and far between. The explorative research in this dissertation as well as the secondary research of the literature review has supported the assumption formulated at the outset that the German meetings industry focuses largely on environmental dimensions when considering sustainable event management. A first step to addressing this could be as simple as a change in terminology, for example “responsible event” or “sustainable event” instead of “green meeting” or “green event”.

The results of the study support the findings from the literature and show that participants mainly identify the social and economic dimension of sustainability as relevant for the events industry. A stronger weighting of economic and social dimensions compared to the environmental dimension might be explained by the fact that many criteria of the former two dimensions are understood to be important requirements for a company’s or organisation’s long-term success, e.g. economic stability, secure venues, fair treatment of employees. This leads to the assumption that respondents subconsciously mix economic and social success factors. However, the existing discrepancy between sustainability awareness and sustainability behaviour – the behavioural gap – can only be addressed through conscious effort.

Here, the developed model (SAESW) can be of assistance in order to identify, optimise and measure the association event’s impacts. This can also help raise awareness towards the topic of sustainability in event management. Thus an environmental, economic and social orientation to sustainability cannot be seen as a mere trend, but as an essential necessity, especially in light of CSR reporting duties in Germany from 2017 onwards. Corporate social responsibility motivates organisations to act sustainably. For associations and corporations, this behaviour is more than “nice to have”: it is increasingly a demand and expectation of customers. Many organisations, especially bigger enterprises and associations, have been aware of this for some time, but sustainability concepts are often not integrated firmly. More often than not they are based on selective, individual or one-dimensional measures; the holistic, multi-impact view is missing.

This dissertation has shown that there is not a “one size fits all” approach for companies and associations interested in sustainable management. Thus, custom tailoring measures according to the three pillars of sustainability and an organisation’s internal and external communication requires is crucial for success. Bring formulated measures to fruition requires a change in

approach, i.e. the additional development of a persuasive communication approach as a form of intervention for sparking lasting changes in behaviour and attitude. In terms of transforming conventional events into sustainable ones, it is crucial to secure the support of the responsible employees, the operative event management team, and event delegates in order to successfully implement the social, economic and environmental measures. This, too, underlines the fact that persuasive target group-oriented communication is essential.

The results of the empirical study showing a positive and conative-based approach to sustainable events matches the results of the CSR study described in Chapter 2, which stated that public demonstrations of sustainability by companies or associations can act as multipliers and motivate members or clients to engage in more sustainable behaviour themselves. This means that the implementation of sustainable strategies must not only be initiated by management, but can also be jumpstarted by employees, members or clients as well to great effect.

Despite considering the factors for narrowing the behavioural gap when implementing sustainable event strategies in associations, two rules should not be neglected:

- 1) The implementation of sustainability strategies for events should be seen as a *process of development*. This prevents losing oneself straight away in the complexity of sustainable event management requirements.
- 2) It helps to define SMART⁷ targets for every pillar: clearly defined targets with clearly defined timeframes.

For a more sustainable DPSG event, for instance, this could include the reduction of car arrivals by 50% (environmental pillar), saving 5,000 EUR per event by giving up printed products, reusing name badges and ordering 30% less meat in catering at a (post-Covid) event (economic pillar), as well as engaging local artists and regional suppliers (social pillar).

There is no standard procedure for those wanting to organise their company or association event more sustainably. Rather, they should focus on adapting the measures of the three pillars as well as a corresponding (internal and external) communication strategy in order to achieve success. Implementing any identified sustainability measures requires a change in attitude and behaviour of the stakeholders. One focus of this work rested in the development of persuasive communication as a form of intervention for achieving the desired change in attitude and behavioural. Reorganising conventional events as sustainable ones is one of many levers to pull to create a more sustainable company or association. This mostly comes down to the responsible managers, the operative event management, and event delegates, all of whom must change their behaviour if environmentally, economically and socially sustainable measures ever hope to be implemented successfully.

As discussed in the introduction, we can assume that every event will have social, economic and environmental impacts, so our goal must be to stamp out or reduce the negative impacts and help the positive ones to flourish as much as possible. We often expect that event organisation mainly brings positive aspects for the involved stakeholders, but the literature review showed that there are a slew of negative aspects to contend with, too, such as transport, price increases, or a turbulent job market where the destination inhabitants themselves suffer. Knowing and understanding these impacts can be useful in order to steer them according to the

⁷ SMART goals = specific, measurable, achievable, relevant, time bound (Drucker, 1954)

aforementioned sustainability concept based on the definition of Musgrave *et al.* (2009:5): maximise economic impacts, minimise environmental impacts and optimise social impacts.

Both the secondary and primary research underlined the existence of a one-dimensional approach to sustainability. The stronger weighting of the economic and social dimensions compared to the ecological component might be explained by the fact that many criteria of these two dimensions are basic requirements for a company's success (e.g. economic stability, secure use of the location, fair treatment of employees), which leads to the assumption that the interviewees do not consciously consider economic and social success factors to be parts of sustainability and instead associate sustainability mainly with the environmental dimension as is conventionally the case. This applies equally to both the experts and the association event participants surveyed.

While writing the thesis, the Covid-19 pandemic burst onto the scene and changed the world as we knew it. Obviously, the impacts of this pandemic are manifold, unpredictable, highly dynamic and more complex than anyone could have imagined only a couple of months prior. Naturally, it struck the event industry in its very soul, as personal encounters are the lifeblood of events, gatherings, conferences, meetings, fairs etc. Despite the fact that most nations have restricted larger events with more than a certain number of participants for quite a while now, there is hope for a return to normal, or even a "new normal", with the introduction of vaccines targeting SARS-CoV-2.

The pandemic has prompted many event stakeholders to look towards the future and consider new ideas for planning and executing future events. While it is most certainly a challenge, the pandemic may also be an opportunity for deeper integration of sustainability into event management processes. Some of the recommended actions listed in Table 47 such as hybrid events might fit into this new landscape of post-Covid requirements and restrictions. Although the pandemic has toppled the events industry into its biggest crisis yet, we can be hopeful that a renewed focus on sustainable event management may help us achieve a new balance between public health and the organisation and implementation of events and meetings. Event managers must establish a new post-Covid event paradigm, which simultaneously allows for (socially distant?) encounters on-site where permitted and online participation.

Virtual events have boomed over the last months due to the pandemic and are now widely accepted as a complementary offer for most events. They even offer unique advantages such as less time investment, lower participation fees, and long-lasting, personalised content available on-demand, which aligns with another hot trend: online education. Certain features such as chats, live polling, community building, and augmented reality form the basis for brand new technical opportunities, which can be integrated into digital event design concepts as well.

At the same time, emotions, personal networks, and spontaneous interaction are highly valued parts of live events and difficult, if not impossible, to recreate in a virtual space. We can assume that live events will not disappear entirely in the post-Covid world, but we can expect hybrid events to grow significantly in importance. New challenges will emerge such as integrating virtual event design into sustainable event management strategies on-site to create the best experience/event possible for stakeholders. But this risk could also be an opportunity, and hybrid sustainable event management strategies can offer solid ground to stand on in the midst of uncertainty, as this crisis has demonstrated all too well. Although sustainability is not at the top of the agenda in most people's minds at the moment, its necessity is still there, more than ever, and hybrid events can potentially bridge the gap between sustainability and new public health and safety frameworks. Moreover, in terms of demographics, as digital natives continue moving

up into the career world, we can expect to see even greater demand for more online offers and hybrid meetings. Consider medical congresses, for example: medical practitioners need points to demonstrate their continued medical education (CME points), which aligns perfectly with digital dissemination of conference content after the event. In other words, there appears to be a synergy between online communication, sustainability and Covid-19 health regulations. Congress apps, panel questions submitted via smart phone, TED-like voting and more will continue to guarantee lively and vivid exchange and interaction, even if not all event participants are physically present.

After Covid-19 we will need to create sustainable solutions and establish new event design approaches, to educate and support event agencies, PCO's and associations, and to engage with stakeholders and peer groups in a safe manner, while still providing value through high quality content, networking, continued exchange and education. Not only the technical examples above, but also the trend towards a shared economy, less congress travel, reduction of CO₂ emissions, less printed paper and more digital content can contribute to both sustainability and public health. Some concessions will be necessary, for example in catering, as sustainable bulk packages may need to be replaced with less environmental single-use portions due to hygiene restrictions. But here, too, are possible solutions such as waiter service behind glass partitions instead of a self-service buffet. In short, new ideas are needed in order to develop solutions for the diverse and complex events industry. Although the pandemic is still raging nearly half a year later at the time of writing, we are seeing a torrent of industry and task-force reports on the current situation instead of solid academic insights and papers on what a post-Covid events industry can and may look like.

Many of us have witnessed first-hand how fast – perhaps not ideal, but fast and getting better – it is to work from home. Even employers who were sceptical of the idea before Covid-19 were forced to acknowledge that it is an opportunity during the crisis and, as many assume, will remain a viable option after the pandemic has subsided. This mental shift will not disappear over night, but it may merge into hybrid events depending on travel and safety restrictions. In any case, it will be viewed as a valuable tool for sustainability, which is not only the topic of this dissertation, but also the topic writ large for 2020 in terms of crisis management.

All in all, this dissertation was used, technically speaking, to develop an independent tool, but it also summarised different models, approaches and measurement methods as well. This allows adaptation to different event scenarios and conditions, but the theoretical structures of the model might be too complex for practical application, which would naturally impair its adoption. Against the backdrop of the study results, future discussions on sustainable event management should concentrate not only on conserving natural resources, but also on economic and social aspects in order to consider potential interdependencies between the three dimensions of sustainability. This has the potential for greater economic success for company and association events (Große-Ophoff, 2016:131 ff.). Sustainability is not merely a necessity due to CSR reporting duties, or a “nice to have” addition to an organisation's portfolio, but rather a business imperative, a driver of innovation, and a method of engaging stakeholders while motivating employees. This can lead to a significant competitive advantage.

Research has shown that sustainable event management is perceived as an important strategic instrument connected to positive impacts at a psychological level (image) in addition to competitive advantages. Still, implementation approaches for sustainable event management are still generally unclear, which often leads to the phenomenon of “single measures without strategy” (Oblasser and Riediger, 2015), a view is supported by the literature. In order to prevent this phenomenon, this dissertation used the findings from both the primary and secondary

research to develop a model to support event planners in introducing, measuring and optimising sustainability strategies when organising an association event. By reducing emissions, generally improving environmental impacts, and increasing social benefits for the community, associations and enterprises are not merely “doing good”, but are protecting their organisation’s bottom line as well as the connected industry. By applying a persuasive target group-oriented communication, greater awareness for the topic is possible and, ideally, consumption patterns can be changed in order to narrow the behavioural gap.

We can conclude that greater sustainable event management can only be achieved via approaches that go beyond the current principle of environmental protection. Efforts must include more than emission reduction, minimising ecological footprints, or giving up meat in catering. Consumption processes and behaviour itself should be changed, which again leads back to the need for target group-oriented communication, integration of stakeholders, and a holistic approach to sustainable event management.

In conclusion, sustainability already influences all human activities and dominates the future outlook for of association event planning. Having studied the various definitions of sustainability, CSR and sustainable development, and having identified the role of events themselves, the main goals of sustainable event management can be succinctly summarised as follows:

- Maximise economic impacts
- Minimise environmental impacts
- Optimise social impacts

Thus sustainable event management strategies should target on the following focal points:

First focal point of activity

- Sustainable economic activity
 - o Maximise economic impacts
 - o Support stakeholder development
 - o Foster individual and social welfare
 - o Resource-conserving economic activity
 - o Economic cycles which strengthen regional businesses

Second focal point of activity

- Sustainable environment
 - o Minimise negative event impacts on the environment
 - o Protect the basis of life on earth
 - o Support low emission / resource-conserving modes of transport
 - o Mobility which ensures barrier-free accessibility

Third focal point of activity

- Social sustainability
 - o Optimise social impacts
 - o Support social welfare, well-being and solidarity
 - o Foster social cohesion and solidarity
 - o Foster sustainable development in associations / event management
 - o Support equal opportunities

This research study aimed to close the gap between strategic and operative planning. Conducting this research can help associations and companies prepare for the future and actively influence decisions and developments by using sustainable meeting management also to their

competitive advantage. This is the practical implication of this study. It has been argued that sustainable event management must not remain merely an option, but must become the common sense approach. Due to vague definitions and a confusing mix of labels, certifications and approaches, uncertainty in the sector is high. With clear terminology and a strategy which facilitates implementation and measurement of sustainable event management, a meaningful contribution to knowledge can be achieved. The SAESW developed here will help to minimise this gap and aid in the understanding of the processes of sustainable event management. Most importantly, it will demonstrate its usefulness and applicability for industry.

“Be the change you wish to see in the world.”
Mahatma Gandhi

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Appendix

- A1: Action fields and measures of sustainable event management
 A2: Dragons of Inaction
 A3: Compilation of Indicators
 A4: Interview Experts
 A5 Guideline Expert Interview English
 A6: Online Delphi English
 A7: DPSG Event Participants Survey English
 A8: Process phases of event management
 A9: Overview of Certification Schemes
 A10: Overview of Academic Models
 A11: Results of Empirical Study
 A12: Measurement Scale for Sustainability Attitude
 A13: Research Design
 A14: Transcripts of Interviews
 A15: Content Analysis after Mayring
 A16: About the author

A1: Action fields and measures of sustainable event management

Action field/Column	Sustainable measures
Mobility	Communication measures for environmentally friendly arrival, transport on site and departure Decision on event dates and times Mobility friendly decision on location Easy accessible information on environmentally friendly transport on site Use of environmentally friendly shuttles Offer to compensate the CO ₂ -emission of arrival and departure Calculation and compensation of not avoidable mobility induced CO ₂ -emissions Anti-idling policy Fill all shuttles Route plan Car sharing platforms
Energy and climate	Energy saving lightning Energy saving heating and air-conditioning Energy saving electronical devices
Resources and procurement	Use of sustainable products, for instance with eco-label/certification Use of recycling paper in the office, for preparation and on-site, double-sided printing Minimization of flyers, hand-outs and programmes – more digital communication No single packaging Use of reusable packaging Waste separation and recycling Water saving measures Voluntary acceptance of returned flyers/posters Print on demand abstract books only
Catering	Use of regional suppliers/regional products Seasonal choices Offer of vegetarian dishes Fair-trade offers where possible/available

	<p>Tap water on offer in containers/tap stations</p> <p>Bulk packages</p> <p>Eliminate single use items</p> <p>Check if left over food can be donated</p> <p>Compost food waste</p>
Communication	<p>Publication of sustainable concept, aims and measures (internally and externally)</p> <p>Training of employees</p> <p>Sustainable certifications along the supply chain</p> <p>Tell a story about local suppliers and sustainability</p> <p>Communicate electronically</p> <p>Integrate social measures</p>
Destination	<p>Destinations with good public transport</p> <p>Airports and train station easily accessible</p> <p>Venues and hotels in walking distance</p>
Accommodation	<p>Hotels in walking distance</p> <p>Good public transport to airport/train stations</p>

A2: Gifford’s Dragons of Inaction

Category of Barrier	Type of Barrier	Explanation
Limited cognition	Ancient brain	The human brain has not evolved much in thousands of years. At the time it reached its current physical development, before the development of agriculture, our ancestors were mainly concerned with their immediate band, immediate dangers, exploitable resources, and the present time (e.g., Ornstein & Ehrlich, 1989). None of those are naturally consistent with being concerned, in the 21st century, about global climate change, which is slow, usually distant, and unrelated to the present welfare of ourselves and our significant others. Obviously, our ancient brain is capable of dealing with global climate change, but doing so does not come easily.
	Ignorance of the problem	For some, ignorance can be a barrier to action in two general ways: not knowing that a problem exists and not knowing what to do once one becomes aware of the problem. Most polls (e.g., Pew Research Center, 2006) find that a proportion of respondents answer “don’t know” to questions about climate change. Even today, some people around the world remain entirely unaware of climate change as a problem. Obviously, this segment of the global population is not likely to take deliberate action aimed at ameliorating climate change. ³ The second dimension of ignorance, found among the much larger proportion of the global population that is aware of the problem, is characterized by a lack of knowledge about the cause and extent of climate change (e.g., Bord, O’Connor, & Fisher, 2000). This lack leads to ignorance about (a) which specific actions to take, (b) how to undertake actions of which one is aware, and (c) the relative beneficial impacts of different actions.
	Environmental numbness	Every environment is composed of more cues and elements than individuals can wholly monitor, so we attend to environments selectively. Therefore, people are often unaware of much of their physical surroundings, particularly aspects causing no immediate difficulty, but sometimes even aspects of it that are causing them at least mild difficulties (Gifford, 1976). Climate change is like that for many citizens: a phenomenon outside immediate attention because it is not causing any immediate personal difficulties. Mitigative and adaptive behaviors are unlikely when this is the case. A second form of environmental numbness occurs at the other end of the stimulus spectrum. When viewers have seen the same

		advertisement many times, attention to it shrinks as habituation increases (Belch, 1982; Burke & Edell, 1986). Similarly, hearing about climate change or the environment too often, particularly if the message is not varied, can lead to a numbness to the message and consequent attenuation of helpful behaviors that would ameliorate the problems
	Un-certainty	Experimental research on resource dilemmas demonstrates that perceived or real uncertainty reduces the frequency of pro-environmental behavior (e.g., de Kwaadsteniet, 2007; Hine & Gifford, 1996). Individuals tend to interpret any sign of uncertainty, for example in the size of a resource pool or the rate at which the resource regenerates, as sufficient reason to harvest at a rate that favors self-interest rather than that of the environment. Uncertainty about climate change also quite likely functions as a justification for inaction or postponed action related to climate change.
	Judgmental discounting	Discounting in this sense refers to the undervaluing of distant or future risks. A recent study of over 3,000 respondents in 18 countries found that individuals in 15 of the countries believed that environmental conditions are worse in places other than their own (Gifford, Scannell, et al., 2009). This study and others (e.g., Uzzell, 2000) demonstrate that spatial discounting of environmental problems occurs. Although conditions often may be objectively worse in other areas of the globe, this tendency occurs even in objectively similar places, such as among inhabitants of English villages a few kilometers apart (Musson, 1974). People also tend to discount future environmental risks, although not as uniformly as risks in some other domains (e.g., Hendrickx & Nicolaj, 2004) and less than other risks (Gattig & Hendrickx, 2007).
	Optimism bias	Optimism generally is a healthy, desirable outlook that can produce useful personal outcomes and technological wonders (e.g., J. L. Simon, 1981). However, optimism can be overdone, to the detriment of one's well-being. Considerable evidence suggests that people discount personal risks, such as their likelihood of a heart attack (e.g., Weinstein, 1980), but also their environmental risks, for example from radon exposure (Weinstein, Klotz, & Sandman, 1988), other environmental hazards (Hatfield & Job, 2001) or, in fact, 22 hazards (Pahl, Harris, Todd, & Rutter, 2005). Thus, one can reasonably predict that optimistic bias applies to risks from climate change, although global citizens do expect environmental conditions in general to worsen over the next 25 years . . . but not as badly where they themselves live as in other places (Gifford, Scannell, et al., 2009).
	Perceived behavioral control/self-efficacy	Because climate change is a global problem, many individuals believe they can do nothing about it as individuals. This is the well-known collective action problem (Olson, 1965). Stated in psychological language, people sometimes do not act because they perceive that they have little behavioral control over the outcome (e.g., Ajzen, 1991; Huebner & Lipsey, 1981) or that their actions will not have much impact (a lack of self-efficacy; Ajzen, 2002). Perceived behavioral control can be a very strong predictor of whether a person chooses to take public transportation instead of a private car (e.g., Heath & Gifford, 2002; Kaiser & Gutscher, 2003). Closely related to the lack of individual perceived behavioral control and self-efficacy is fatalism, the sense that nothing can be done, not only by the individual but by collective human action (cf. Lorenzoni <i>et al.</i> , 2007; O'Connor, Bord, & Fisher, 1998).
Ideologies	World-views	One significant predictor of disbelief in global warming is belief in free-enterprise capitalism (e.g., Heath & Gifford, 2006). Capitalism clearly has produced an affluent lifestyle for millions of people, but some aspects of it, such as a belief in the freedom of the commons (Hardin,

		1968), have led to the devastation of fisheries, forests, and landscapes around the world. Having an important stake in some organizations is not compatible with adopting mitigating behaviors (e.g., Dunlap & McCright, 2008).
	Supra-human powers	Some people take little or no climate-related action because they believe a religious deity or Mother Nature (as a secular deity) either will not forsake them or will do what it wishes anyway. For example, researchers who interviewed two groups of Pacific Islanders who live on very low-lying atolls threatened by rising sea levels found that one group is already purchasing higher ground in Australia; the other group, trusting that God will not break the Biblical promise never to flood the Earth again after the flood that Noah and his entourage endured, believes that sea level rises will not affect them because there will be “fire next time” (Mortreux & Barnett, 2009). More secular individuals sometimes express the belief that Mother Nature will take a course mere mortals cannot influence.
	Techno-salvation	Mechanical innovation has a long and admirable history of improving the standard of living. Those who see its promise as a partner in mitigating climate change (e.g., Gifford, 2008; Terwel, Harinck, Ellemers, & Daamen, 2009) or even as something close to the essential solution (e.g., J. L. Simon, 1981) share their belief in its promise with some who go further and believe that technology alone (or nearly alone) can solve the problems associated with climate change (e.g., citizens quoted in Lorenzoni et al., 2007). Some experts strongly support geoengineering as a tool in the struggle against further global warming. One organization that strongly endorses it is the United Kingdom’s Institution of Mechanical Engineers (2009), whose current top two geoengineering solutions are to create artificial trees and to coat buildings with algae. However, even the Institution of Mechanical Engineers advocates geoengineering in concert with mainstream mitigation policies. However, for some citizens, overconfident beliefs in the efficacy of technology appear to serve as a barrier to their own climate-mitigating behavior.
	System justification	Another belief system has been described as system justification, the tendency to defend and justify the societal status quo (Feygina, Jost, & Goldsmith, 2010). When citizens are fortunate enough to have a comfortable lifestyle, the tendency to not “rock the boat” or, perhaps more important, to not have others change the way things currently operate, grows. Once again, climate change will require adjustments; system justifiers naturally will not enthusiastically adopt mitigative actions. It is interesting, however, that Feygina <i>et al.</i> (2010) showed that if mitigation can be successfully portrayed as part of the system, this lack of action on the part of system justifiers can change.
Comparison with others	Social comparison	People routinely compare their actions with those of others (Festinger, 1954) and derive subjective and descriptive norms from their observations about what is the “proper” course of action (e.g., Heath & Gifford, 2002). This tendency is recognized in the theory of planned behavior (Ajzen, 1991) and the valuebelief-norm model (Stern, 2000), among other theories, and has been applied to many pro-environmental behaviors and interventions (e.g., Biel & Thøgersen, 2007; Cialdini, 2003).
	Social norms and networks	Norms are often cited as a potential force for progress in environmental issues, and they can be (Thøgersen, 2008), but they can also be forces for regress. The double-edged power of norms was made clear in a study of residential power use. When homeowners were told the amount of energy that average members of their community used, they tended to alter their use of energy to fit the norm (Schultz, Nolan, Cialdini, Goldstein, & Griskevicius, 2007), that is, decreasing or increasing their energy use

		accordingly. Fortunately, the researchers learned that the increases could be prevented by giving low energy users positive feedback about using less energy. Norms can also develop through social networks in neighborhoods or workplaces. Again, these can be negative in the sense that anticlimate behavior patterns can dominate, but proclimate patterns can too. Rogers (1983) documented a case in which mapping of who spoke with whom and mapping of dwelling proximity combined to explain why 7 of 44 residents (16%) installed photovoltaic panels on their homes (far more than the national average of 1%). Social networks can be powerful mitigative influences.
	Perceived inequity	Perceived (in)equity is often heard as a reason for inaction: “Why should I change if they won’t change?” Usually, well-known figures, other economic sectors, or other nations are cited as not cooperating, which serves as a justification for nonaction. The fear of being victimized by free-riders (Kerr, 1983; Olson, 1965) serves as a barrier for some individuals, who ask why they should contribute responsible behavior to the climate change cause when (they fear) others will not. In experimental resource dilemmas, when any sort of inequality or inequity (real or perceived) exists, cooperation tends to decline (e.g., Aquino, Steisel, & Kay, 1992).
	Lack of place attachment	Individuals may be more likely to care for a place to which they feel attachment than for one to which they are not attached. If so, weaker place attachment should act as an obstacle to climate-positive behavior, and populations with a history of geographic mobility would be expected to care less for their present environments. The evidence for this prediction is mixed: Place attachment is sometimes (Vorkinn & Riese, 2001) but not always (Clayton, 2003; Gifford, Scannell, et al., 2009; Uzzell, Pol, & Badenas, 2002) associated with pro-environmental behavior. The role of place attachment is likely to be complex but probably acts as an impediment to action in some populations, as is perhaps indicated by local opposition to wind farms in some areas even when there is strong support for other pro-environmental policies. For example, nature-based place attachment but not civic-based place attachment seems to be related to pro-environmental behavior (Scannell & Gifford, 2010; Vaske & Kobrin, 2001).
Sunk costs	Financial investments	Once one has invested in something, dispensing with it is more difficult than it would have been had one not invested in it (e.g., Arkes & Hutzel, 2000; Knox & Inkster, 1968). The cardinal example in this context might be car ownership. If one has purchased a car and is now paying for its insurance and monitoring its depreciation, why should this cozy portable living room, with its many perceived benefits (cf. Reser, 1980), be left in the driveway? People generally are lossaverse and do not wish to see that expense “thrown away” in order to begin bicycling or taking public transit. Economists point out that the rational choice is to dispense with the sunk cost and move forward, but most people choose instead to hold on to the sunk cost investment, at least until its disadvantages become too painful.
	Behavioral momentum	William James (1890) called habit the “enormous fly-wheel of society” (p. 121), although he viewed this stability of action in positive terms as a mechanism by which society remains ordered rather than chaotic. In the context of climate change (and some other behavioral contexts), habit is less benign (Ouellette & Wood, 1998). Habit may not be a glamorous barrier, but it may be one of the most important for the mitigation of climate change impacts (e.g., Hobson, 2003) because many habitual behaviors are extremely resistant to permanent change (e.g., eating habits), and others are only changed slowly, over decades (e.g., the rates of smoking and the use of safety belts) (Maio <i>et al.</i> , 2007). Ensconced

		habits do not change without a substantial push; priming and even attitude change often do not lead to behavioral change. Perhaps because it aptly expresses the sense of variation in the resistance to change, behaviorists have used the term behavioral momentum (Nevin, Mandell, & Atak, 1983).
	Conflicting values, goals and aspirations	Pro-environmental values positively influence at least the willingness to accept climate change policies (McCright, 2009; Nilsson, von Borgstede, & Biel, 2004; O'Connor, Bord, Yarnal, & Wiefek, 2002), but they are not always compatible with other values, other goals, and other aspirations that inevitably lead to the production of more greenhouse gases. The aspiration to "get ahead" often means engaging in actions that run counter to the goal of reducing one's climate change impacts: buying a larger house, flying by choice, or driving a bigger car. That environmental values and goals frequently are subsidiary to other values and goals is revealed when people are asked to rank the importance of climate change amelioration against that of other problems or concerns: They assign climate change low importance (e.g., Leiserowitz, Kates, & Parris, 2005). Adopting a phrase first used by Smillie and Helmich (1999) to describe public support for foreign aid, Vasi (2009) characterized public support for sustainable development and the actions necessary to curtail climate change as "a mile wide, but an inch deep."
Discrepancy toward experts and authorities	Mistrust	Trust is essential for healthy relationships. When it is absent, as it sometimes is between citizens and their scientists or government officials, resistance in one form or another follows. Trust is easily damaged, and when e-mails are stolen and selectively quoted, or a single overeager scientist exaggerates future climate change outcomes even in one region, widespread distrust can be created. Trust is important for changing behavior, and although its role as an influence on pro-environmental behavior is complex (Gifford, 2007a), in general, behavior change requires one to trust others not to take advantage; to trust that the change is effective, valuable, and equitable (e.g., Brann & Foddy, 1987; Foddy & Dawes, 2008); and to trust that the other has public-service motives and is honest (Terwel et al., 2009). In sum, when trust sours, the probability of adopting positive climate change behavior diminishes.
	Perceived programme inadequacy	Policy makers have considered and implemented many programs designed to encourage sustainable or climate-friendly behavior choices. However, most climate-related programs to date are voluntary for individuals; few are mandatory or are backed with enforced sanctions for noncompliance. Thus, citizens choose whether to accept the offer, and often they decide the program is not good enough for their participation (cf. Pelletier, Dion, Tuson, & Green-Demers, 1999). Cognitive dissonance can occur here as elsewhere; it can be easier to change one's mind about the adequacy of a program than to change one's behavior by engaging in the program
	Denial	Uncertainty, mistrust, and sunk costs can easily lead to active denial of the problem (e.g., Norgaard, 2006). This may include denial that climate change is occurring, that it has any anthropogenic cause, or that one's own actions play a role in climate change. Polls vary, but substantial minorities of people in most countries believe that climate change is not occurring or that human activity has little or nothing to do with it (McCright & Dunlap, 2010). Those holding this view tend to be outspoken in proportion to those who accept that a problem exists. For example, a news story in USA Today about several environmental presentations at the American Psychological Association (APA) 2008 convention in Boston (Jayson, 2009) drew 115 reader responses. An informal content analysis of the comments that Sonya Frey and I conducted

		showed that about 100 of the responses essentially denied that the problem exists; two typical explanations were that climate change is a problem invented by “scientists who are pursuing a phantom issue” and that scientists are ignoring research “proving” the problem is overestimated or does not exist.
	Rea- ctance	Ample evidence suggests that many people distrust messages that come from scientists or government officials (e.g., Earle, 2004; MacGregor, Slovic, Mason, & Detweiler, 1994). Some strongly react against advice or policy that seems to threaten their freedom (Brehm, 1966), partly because it is based on a lack of trust in those who give the advice or set the policy (Eilam & Suleiman, 2004). Among others, those with an interest in the fossil fuel industry have been seeking, with increasing success (Newport, 2010), to promote mistrust of the scientific consensus on climate change and create opposition to mitigation (cf. Hoggan, 2009; McCright, 2007; Oreskes & Conway, 2010)
Perceived risks of change	Functional	Will it work? If one purchases, for example, a plug-in electric vehicle (PHEV) it may, as a new technology, have battery problems. The same could be said for many new green technologies that now exist or have been proposed as mitigative or adaptive solutions.
	Physical	Some adaptations may have, or at least be perceived as having, some danger associated with them. Is this PHEV (for example) as crash-safe as the sport utility vehicle that was traded in to buy the PHEV? To take another example, bicycles burn virtually no greenhouse gases after they are manufactured, but they result in quite a few visits to emergency rooms.
	Financial	Many green solutions require capital outlays. How long is the payback? If the product becomes a fixed part of a residence (e.g., solar panels), will the owner recoup the installation costs or accrue enough energy savings before moving on? That PHEV’s purchase price probably includes a premium over equivalent gaspowered vehicles; will the money spent buying and operating it be lost?
	Social	Others notice many of our choices; they become part of our public face. This leaves one open to judgment by one’s friends and colleagues, which could lead to damage to one’s ego or reputation: If I buy a PHEV, will these significant others laugh or scoff at me, deride me behind my back? They may invoke any of the first three risks as my failure to reckon carefully.
	Psychological	This risk, which closely follows the fourth, perhaps is less likely for most people but can occur. If one is teased, criticized, or even rebuked by one’s significant others for buying the PHEV, one risks suffering damage to one’s self-esteem and self-confidence
	Temporal	A more common, perhaps almost universal, risk is the potential that the time spent planning and adopting the new course of action might fail to produce the desired results. Most people, one supposes, would spend a nontrivial amount of time deciding whether to buy a PHEV, deciding whether to become a vegetarian, planning how to bicycle to the day’s activities, or making any other significant mitigative choice. If the choice does not result in the desired benefits, the time spent researching and purchasing items involved in the climate-changerelated behavior choice will have been wasted.
Limited behaviour	Tokenism	Once individuals move past environmental numbness, denial, judgmental discounting, habit, and perceived risk and believe that they have some behavioral control and a sense that their own community, to which they feel some (natural) attachment, might be threatened, they may finally begin to engage in proclimate behavioral change. Which changes are most likely? Some climate-related behaviors are easier to adopt than

		others but have little or no impact on greenhouse gas emissions. However, their ease of adoption means these actions tend to be chosen over higher cost but more effective actions. This tendency has also been called the low-cost hypothesis (e.g., Diekmann & Preisendörfer, 1992; see also Kempton, Harris, Keith, & Weihl, 1985). Pro-environmental intent may not correspond with pro-environmental impact (Stern, 2000).
	Rebound effect	A further problem with initially proclimate choices is the rebound effect. After some mitigating effort is made, the gains made are diminished or erased by subsequent actions. For example, persons who buy fuel-efficient vehicles may drive farther than they did when they owned less efficient vehicles. The phenomenon has also been called the Jevons paradox (Jevons, 1865) and the Khazzoom–Brookes postulate (Brookes, 1990; Khazzoom, 1980). The rebound effect was demonstrated in a recent resource dilemma study in which participants who had been warned about the decline of the resource restricted their harvests for a few seasons but then returned to prewarning levels soon after (Joireman, Posey, Truelove, & Parks, 2009).

Those considered in the empirical study are marked in bold print.

A3: Set of Indicators

Indicators for the Profitability of an event	Area	Impact / effect indicator	Performance indicator	Measurement
	Finance	Financial scope	return on assets return on investment leverage/gearing (Verschuldungsgrad) Stakeholder value Visitors expenses Sponsors' expenses	
	Stakeholders' interest	long term indicators with financial supporter long term relationship with visitors image of sponsors and event destination/venue	average length of signing a contract visitors' profile (age, origin etc.) number and relationship between visitors and repeating delegates brand awareness assessment of the visitors and delegates in terms of sponsors awareness of event destination / venue	evaluation of contracts questionnaires during the event
	Event perspectives	innovation willingness (internal) innovation capability (internal)	creative formats innovations projects and programmes reaction rapidity on external changes	questionnaires in the team management evaluation
Indicators for the security and risks at an event	security and risk	sense of security of visitors security situation at venue sense of security of visitors and	number of injured persons on the event space number of offenses on the event ground number of illnesses caused by the event	questionnaires, accounting and documentation of the injured persons by ambulance men or policy observation

		locals next to the event costs for the insurance and risk funding	observation of the communicated guidelines cost savings for the security management by improvement of the security costs savings or additional expenses for potential costs of insurance policies	documentation of the policy and special questionnaires controlling controlling
	Working conditions	work security and responsibility for the employees acceptance of event as working space	Number of working injuries Observation of working conditions Satisfaction and motivation	documentation of the working injuries and measure implementation questionnaires
Indicators of a sustainable supply chain	Product	reliability für the sustainable event planning creation of demand and conscious consumer decisions creation of demand for ecological and trade fair products strengthening of regional acceptance reduction of negative impacts on the natural and social environment longevity and reuse of products reduction of resources prevention of emissions	material share and products with a label for ecological and social production (office material, merchandising, event material) share of regional products share of reusable products resource efficiency	evaluation of the materials administration controlling
	service	strengthening of regional demand consolidation of demand for trade fair services	share of ecological, regional and seasonal food (with label)	controlling
Indicators for the sustainable use of resources	energy	costs for the use of energy	total energy consumption energy consumption per delegate share of energy from renewable energies	bills for energy consumption (electricity, fuel, heating) for planning, execution of the event
	Water	costs for water usage and sanitation water sources which are affected by the taking of water or	total water consumption water consumption after sources total waster discharge after art and place of water supply	bills for all water consumption for planning and execution of the event interview municipal utilities controlling

		wastewater discharge		
	Waste	costs for the waste disposal	total residual waste residual waste per delegate share of the waste which is possible to recycle	controlling
	Materials	costs per barrel material	used materials/resources after weight or volume share of recycling material in terms of the total material usage	controlling evaluation of materials logistics
Indicators for the reduction of emissions	CO ₂	costs for CO ₂ compensation share of national emissions (industry)	total direct and indirect greenhouse emissions after weight	identification of CO ₂ sources and equivalent natural environment cost analysis
	Noise	negative perception of the event through noise destruction of the delegates and locals	duration and height of the highest and average volume	measurement of noise questionnaires
	Other emissions	health damage	emissions after source and weight	measurement during event
Indicators for the protection of the natural and social environment	Event venue and biodiversity	condition of the used spaces costs for the reconditioning of spaces population of species (outside venues)	difference in the venue quality before and after the event abundance before and after the event	inventory before and after the event
	Traffic	traffic situation in the region in connection to the event disturbance of the local inhabitants through traffic during the event	modal-split during arrival and departure usage of traffic measures	questionnaires during the event
Indicators for stakeholder satisfaction	Inclusion of stakeholder groups	Inclusion of external and internal stakeholders Transparency	quality of institutionalized stakeholder dialogues (e. g. community, locals, NGOs) sustainability report presentation of sustainability impacts of the event for the community	breakdown of communication formats documentation of relevant topics
	Social community	Support of social cohesion in the community Inclusion of all stakeholder groups	Positive attitude in terms of community life (identification with the communication) through the event Perception of locals of the event	Questionnaires during the event Evaluation of the working contracts and the programme Interviews throughout the organisation, the event and the locals

			Ethnic and sexual diversity (throughout the organization; the programme) Number of negative statements through discrimination Low barriers for delegates in a wheel-chair or persons with limited mobility (inclusion and barrier-free approaches)	Breakdown of building or renovation measures
	Local culture and tradition	Advancement of local lifestyle and culture	Integration of local/regional traditional aspects (e. g. in the programme, event design or the catering) Integration of local/regional cultural aspects Exchange between community and delegates/visitors	Analysis of the event programme Analysis of the event design Questionnaires and interviews during the event
Indicators for the sustainable community development	Regional-economic development	Additional economic occupation for the locals Additional income generated through the event	Amount of event induced jobs Amount of locals in the team Qualification of local voluntary and employed staff Amount of event induced start-ups Order volume of event induced orders for local enterprises Amount of event induced additional expenses for overnight stays and consumption of the visitors/delegates	Identify and survey the direct and indirect jobs and trainings Suppliers' survey Evaluation of contracts and the balance sheet Questionnaires and surveys via the regional hospitality association and retailer
	Life quality	Improvement of life quality	Satisfaction of population in relation before and after the event External measurement of the life quality	Questionnaires in the local population Evaluation of national comparable studies
	Regional perspectives	Improvement of the attractiveness of the region	Emergence of tourists Amount of new enterprises in the region Increase in value of local ground	Media resonance Observation of touristic development Observation of investments and the ground prices
	Development of infrastructure	Improvement of the built volumes Improvement of the attractiveness through additional buildings and infrastructure	Amount of buildings, infrastructure in the community, which is available for the locals also after or between the events Expenditures for buildings, infrastructure, which are available for the community after the event Amount of the value generated by non-developed spaces or buildings	Evaluation of building projects Evaluation of balance sheets
Indicators for the distribution of sustain-	Information	Distribution of information on sustainability	Sustainability related topics in the programme, presented on the event or as reason for the event itself	Analysis of the events programme, event design and breakdown of executed measures

nable content and improved knowledge for a sustainable development			The topic of sustainability is spread via media in connection with the event Relation between ecological and social responsible enterprises as sponsors in relation to conventional companies Training concepts for the staff and supplier in terms of sustainability	Media clipping Evaluation of sponsor contracts Evaluation of communication structures
	Consciousness and values	Sustainability consciousness of delegates and visitors Sustainability consciousness of suppliers Sustainable understanding of values throughout the association/organization	Consciousness raised by the event Image of the term “sustainability” Effects of the instruction formats for suppliers Formulated vision Sustainability guidelines for the different organization departments	questionnaires and survey during the event survey after the event analysis of organization survey in the project management/event planning team

A4: Interview Experts

	Name	Position	Encoding item
1	Jeanette Rosen	Project Manager, Jönköping Convention Bureau, Jönköping, Sweden	E1
2	Olga Junek	Professor of Sustainable Event Management, Victoria University, Melbourne, Australia	E2
3	Ivo Lammers	Director Meeting Essentials, Amstelveen, The Netherlands	E3
4	Nadja Ensink-Teich	Senior Project Manager, Brook Green UK, DMC, London, UK	E4
5	Julia Ackermann	Director, Greenstorming, Sustainable Event Agency, Berlin, Germany	E5
6	Christine Koch	Sustainability Manager, German Convention Bureau e. V., Frankfurt, Germany	E6
7	Markus Große-Ophoff	Head of Division Environmental Communication, DBU / Professor for Sustainable Event Management, Osnabrück, Germany	E7
8	Kerstin van der Veur	Project Manager Global Conference Organizers, Sliedrecht, The Netherlands	E8
9	Simon Weihofen	Sustainability Manager, German Scout Association, eon Sustainability Manager	E9
10	Cornelia Grünewald	Senior Project Manager, Intergerma GmbH, Hamm, Germany	E10
11	Rebecca Krings	Senior Event Manager, Tecis Finanzdienstleistungen, Hamburg, Germany	E11
12	Maria Mittermayer	Senior Project Manager, Conference & Touring, DMC, Hamburg, Germany	E12
13	Nele Aumann	Head of Division Conventions, Hamburg Convention Bureau, Germany	E13

14	Marijke Noy	Freelance event manager, Cologne, Germany	E14
15	Sandra Geese-Näffgen	Event Specialist, Corning Optical Communications, Berlin, Germany	E15
16	Sanela Schlößler	Senior Project Manager, swop, Berlin, Germany	E16
17	Stefanie Peters	Head of Event Management, Selbach Promotion, Cologne, Germany	E17
18	Constance Petzsch	Project Manager, con gressa GmbH, Berlin, Germany	E18

A5: Guideline Expert Interview English

Please state briefly what you understand under the term „sustainability“.

Please state briefly what you connect with the term „sustainable event management“.

Have you already collected experiences in sustainable event management?

(Seminars or sustainable organised (visited or self-organised) events)

Are there internal guidelines concerning sustainable event management in your company?

If yes, how were they introduced?

Do you use checklists from, for instance, the German Convention Bureau e. V., ICCA or others? If yes, which one?

Is your company certified?

What was your motivation/barrier in terms of a certification?

Have you already certified single events?

Which barriers to you acknowledge in sustainable event management?

What is, in your opinion, the reason for the ongoing interest at sustainable event management?

Who is in your eyes mostly responsible for the topic of sustainability?

Are your clients asking for measures in sustainable event management?

Which fields of actions and measures in sustainable event management are in your focus?

If you already have organised events sustainably: what are the measures used most during a sustainable event?

Are you pro-actively introducing sustainable event management to your clients?

Are your clients demanding sustainable certificates?

Do you measure the sustainability of events? If yes, how?

How do you determine indicators for that?

Do you use a management system internally? If yes, which one?

No, because...

Is there an evaluation afterwards?

Is feedback given afterwards?

Are there any incentives in your company to stimulate your employees to use sustainable measures (in the job and/or private)?

How is sustainable event management influencing your company?

Do you observe a change in the relationship to clients and/or suppliers?

What is/was your motivation to introduce sustainable event management?

Many people are concerned about the environment, but there are several scientific evident barriers towards an appropriate behavioural change. Please tick in the following the statement(s) which is matching most with your personal view.

Even if I as a single person act more environmental-friendly and socially, by, for instance, driving the car less frequently, this is only a drop in the bucket.

I think that technical improvements will solve the problem of the global pollution.

There are so many environmental polluters in industry and economy that I fail to see to integrate a more sustainable behaviour in my daily life.

There is no clear evidence that global climate change is caused by humans.

The environmental problems are much bigger in countries such as China or India. Here, the risk of global climate change is not that huge.

Frankly spoken, I cannot stand the term „sustainability“ anymore. Companies, associations, science and politicians are using it nonstop to reveal in positive light.

When you think of your daily life, are there potentially areas where you already show sustainable behaviour? For instance, are there regular food scandals, especially due to industrial livestock farming. Do you eat less meat than in the past?

Yes

No

How often do you consider environmentally aware behaviour such as waste separation, saving energy or water?

I pay attention to energy saving equipment when buying new devices.

Never seldom often always

Instead of dressing with warmer clothes, I prefer to turn on the heating.

Never seldom often always

I divide scrap (Gelber Sack).

Never seldom often always

I divide organic waste.

Never seldom often always

When doing shopping, I consider organic food (e. g. fruit, vegetables, dairy products, meat, fish).

Never seldom often always

I do not open the tap without purpose.

Never seldom often always

We use recycling paper in the office.

Never seldom often always

What do you guess how the amount of CO₂ in the atmosphere increased since beginning of the industrialisation?

Ca. 1 %

One quarter

One third.

I do not know.

What do you guess is the amount of CO₂ produced during a flight from Frankfurt to Palma and return?

10 kg

150 kg

700 kg

2000 kg

I do not know.

What do you guess how many of the global population suffer from water shortage?

Around 10 %

Around 20 %

Around 40 %

Around 60 %

I do not know.

What do you guess is the share of greenhouse emissions caused by traffic in the EU?

Approx. the half

More than one quarter

Less than one quarter

More than the half

I do not know.

When driving by car from Cologne to Hamburg (based on the average degree of capacity utilisation of train and car) what do you think how many CO₂-emissions more are produced compared to the train?

Approx. twice as much

Approx. three times as much

Approx. the same

Slightly more

I do not know.

Relating to the ecological footprint (consumption of resources) of a German: Which areas belong to the following shares?

Consumer goods

Living

Nutrition

Mobility

35 %

22 %

25 %

18 %

You are nearly done. Please make finally some socio demographic statements concerning your person. This is used for statistical (anonymous) evaluation.

In which year are you born?

What kind of enterprise are you working for?

Position

Sex

Female

Male

Are children living in your household?

Yes

No

Highest school degree:

Secondary school

High school

A levels

Have you finalized an apprenticeship or study?

Apprenticeship

Study

Both

None of both

I am interested in the evaluation. Please forward afterwards.

Yes, to the following e-mail-address: ...

No, thanks.

Any comments? Here is space for your thoughts.

A6: Online Delphi English with Results

Full search data available on request (according to article 3.26.3)

A7: Questionnaire DPSG English

What comes to your mind when you hear the term „sustainability“? (*multiple answers possible*)

responsible use of resources

protection of the environment

social justice in consideration future-oriented acting / taking future generations

Reduction of CO₂-emissions Reduction of garbage / Recycling

other _____

2. Who should take care of the topic? (*multiple answers possible*)

Politics Industry Science Companies Everyone

3. Which level of significance has sustainability in your life? (*please tick the appropriate statement*)

none very low low high very high

4. How often do you apply sustainable measures in your daily life?

Giving/usings lifts/car sharing never rarely often always

Use of recycled paper never rarely often always

Use of energy saving equipment never rarely often always

Water saving measures never rarely often always

Buying organic food never rarely often always

5. What sustainability certificates do you know? (*multiple answers possible*)

Fair Trade Blauer Engel FSC (ForestStewardshipCouncil) Bio-Siegel other

6. Are you aware of the Green-Events-Guidelines of the DPSG?

Yes No

6.1. If you ticked „Yes“: Do you think that it is applied appropriately at DPSG-events?

appropriate partly appropriate not appropriate

6.2. If you ticked „Yes“: Do you apply the guidelines in your event planning?

Yes No

7. Would you apply single aspects of the guideline into your daily life?

Yes No If yes, which one?

Nutrition and Kitchen Venue / Mobility Energy / Climate

Communication / Education other _____

8. How do you evaluate the Green-Events-Guidelines and do you have specific suggestions for approval?

Mobility

9. Which mode of transport did you chose?

Bus Train Car (How many persons in one car? _____) Bicycle other

10. In order to reduce the usage of resources, I would be ready to choose another form of transport instead the car.

Yes, the train. Yes, a private coach. No, I am not ready to do that.

If you ticked “No”: What are the reasons for that?

11. How many kilometres is your journey one way? _____

Catering

12. Have you bought your food in your home destination or regionally in Westernohe?

Home Region

13. How is the food mainly prepared?

conventionally with meat but organic conventionally not organic vegetarian vegan

14. Would you be ready to accept catering without or reduced meat on events of the DPSG?

vegetarian meat reduced catering not ready for that

15. What happnes with your food leftovers?

we dispose them they will be eaten at a later stage other _____

Inclusion

16. Are physically, psychically or socially handicapped participants integrated appropriately?

Yes No Why not? _____

Energy

17. Which electronic devices have you brought to the Camp?

Handy Laptop/Tablet other _____

Planning

18. Is the topic “sustainability” integrated in your event planning? (Rover/Leiter)

Yes No

19. What other measures do you suggest for the organisation of DPSG-events?

Socio-Demographics 20. What is your level?

21. Highest degree?

Pfadfinder Rover Leader Secondary school Junior High A-Levels Studies

22. Sex

Female Male

23. Has your sustainability awareness increased through this event?

Yes In what way? _____

No Why not? _____

Thanks for your participation!

A8: Process Phases of Event Management

Full research data available on request (according to article 3.26.3)

A9: Overview of Certification Schemes

Full research data available on request (according to article 3.26.3)

A10: Overview of Academic Models

Title	Author	Planning	Measurement	Indicators
SCENE-Model		X		
Sustainable Events Management Wheel	Raj, R. and Musgrave, J.	X		
DIT-ACHIEV-Model	Griffin, K.A.	X		x
The Sustainable Event Planning Model	Saeed-Khan, S. and Clements, P.	X		
Sustainable Event Dashboard	Lamberti, L., Fava, I. and Noci, G.			
Sustainability Balanced Scorecard	Figge	X	X	
Trias-System	Rieder, C. and Oblasser, M.	X	X	
Portfolio-Matrix	Rieder, C. and Oblasser, M.			
Strategy-Map	Rieder, C. and Oblasser, M.			

Perspective Cards	Rieder, C. and Oblasser, M.			
EFQM-Model				

Sources: own compilation

A11: Results of Empirical Studies

Full search data available on request (according to article 3.26.3)

A12: Measurement Scale for Sustainability Attitude

Full search data available on request (according to article 3.26.3)

A13: Research Design

Study of Sustainability in the German Meetings Industry in order to develop a conceptual framework for event sustainability performance measurement										
	DPSG									
	Economic effects	Social effects	Environmental effects	Behavioural gap	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	
Research design I	Questionnaire on site	association's data	association's data	Questionnaire with event participants (on-site)	secondary research: literature research	secondary research: literature research	secondary research: literature research	secondary research: literature research		To use the findings in order to re-define and develop a sustainability scorecard in order to facilitate the implementation of sustainability in the
Type	quantitative	qualitative	qualitative	qualitative	qualitative	qualitative	qualitative	qualitative	qualitative	qualitative
Research design II	Association's data	association's data	association's data	Questionnaire with event participants (on-site)	Expert interviews	primary research: semi-structured expert interviews / Delphi-Study	primary research: semi-structured expert interviews / Delphi-Study	primary research: semi-structured expert interviews (exploratory pre-study to generate items) / Delphi-Study		
Type	quantitative	qualitative	quantitative	quantitative	qualitative	qualitative	qualitative	qualitative		
Research design III					Questionnaire with event participants (on-site)		Online Delphi	Online Delphi		
Type					quantitative		qualitative	qualitative		
Enquiry period	Pentecost 2017	Pentecost 2017	Pentecost 2017	Pentecost 2017	Pentecost 2017	spring/summer/autumn 2017	spring/summer/autumn 2017	winter 2017		
Enquiry form	during live event	meeting	meeting	during live event	during live event	during live event	during live event	meeting/telephone/skype calls		
Sampling	763 event participants	organisers	organisers	experts/participants	experts/participants	experts/participants	experts/participants	experts/participants		

A14: Transcript of Interviews

Full research data available on request (according to article 3.26.3)

A15: Content Analysis after Mayring

Full research data available on request (according to article 3.26.3)

A 16: About the author

Events and sustainability, tourism and marketing – these are the topics Vanessa Meinen is engaged in since more than 20 years. Born in Kleve, she studied International Tourism Management in Freiburg, Brighton (UK) and Heide/Westcoast, which she completed with a master’s degree.

As a project manager in event management and business tourism, she gained practical experience in two agencies based in Hamburg, where she was responsible for the organisation of scientific congresses and controlling of project teams both at national and international level. After about ten years in the operative management, she focuses since 2013 on the transfer of her enthusiasm for issues in sustainable event and tourism management as well as destination marketing as a lecturer at the Rhine-Waal University of Applied Sciences and is happy to share this expertise with students and colleagues. Since 2014 she is working also as programme coordinator for the study programme Sustainable Tourism and also actively supervises bachelor theses. This and her task for the World Federation of ADHD where she is responsible for the scientific programme and marketing of the world congresses has accompanied her work on this PhD project.

“One way to pick a future is to believe it’s inevitable.”

Richard Bach, *One*

