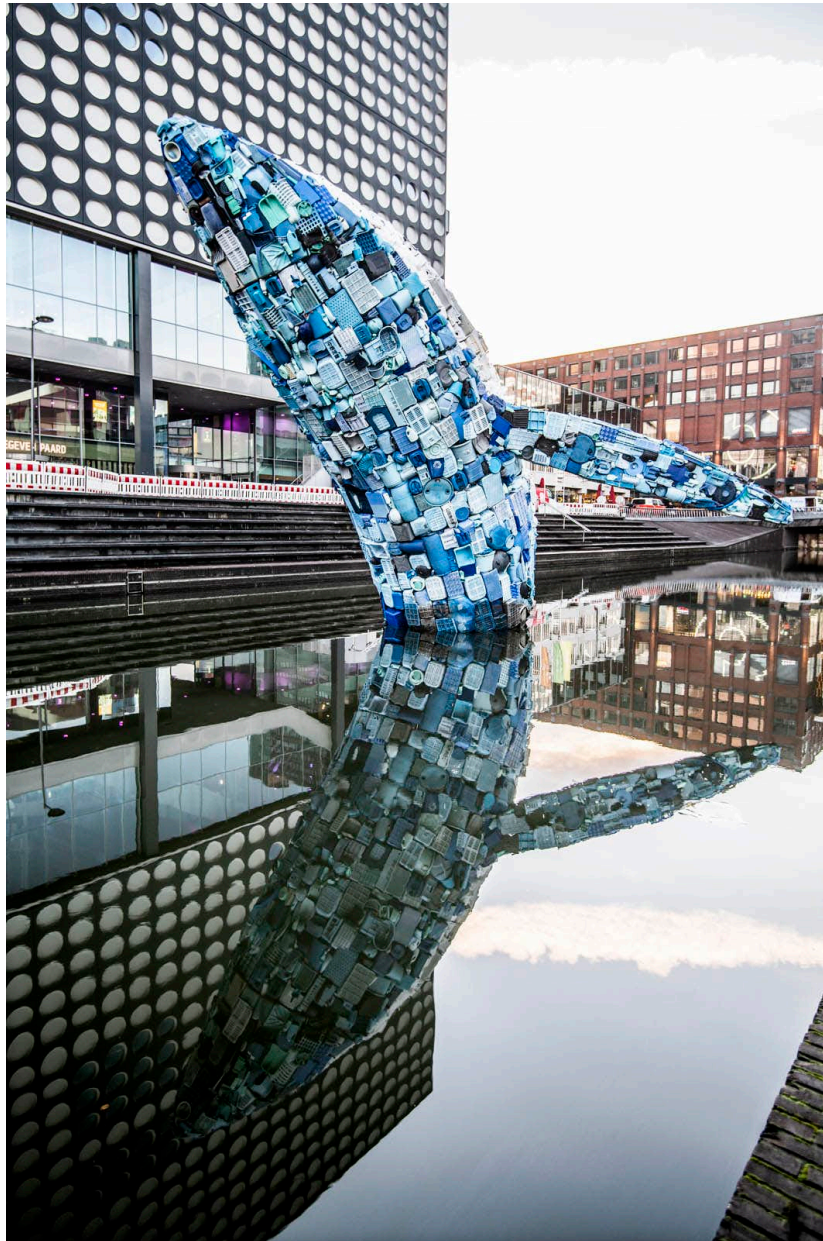


# When there is a will, but no way (yet)



A study into environmental sustainability at outdoor sports events in Utrecht



**Radboud University Nijmegen**

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October 2019



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A study into environmental sustainability at outdoor sports events in Utrecht

MASTER THESIS

Human Geography | Cultural Geography & Tourism

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## Summary

The relation between sports events and environmental sustainability is relatively unknown. Much research has been conducted into the social and economic impacts of (major) sports events, but the environmental impacts of these events have remained underexposed. Throughout the years, the scientific and societal attention for these impacts has increased. According to the scientific literature, it looks like the sports industry lags in implementing environmental sustainability initiatives when compared to other industries, like the festival industry. However, the increased attention for environmental sustainability has recently also led to increased awareness among sports events organisers and has sparked the need to act.

To contribute to the deepening of insights on this terrain, this research aims to provide a first insight into the current state of affairs surrounding environmental sustainability at outdoor sports events in Utrecht. To this purpose, fourteen interviews have been conducted: ten with sports events organisers of all kinds and sizes, three with employees of the municipality and one with a sustainability expert from the organisation Green Events. The respondents have all been interviewed using a topic list that is based on the conceptual model of this research. This model has been created by taking the wave model of McCullough and others (2016) and the model of drivers and constraints for the implementation of measures by Trendafilova and others (2013) and combining them into one model.

As it turns out, all the sports events organisations that participated in this research are aware of environmental issues and the negative environmental impacts of their events. They have all been implementing environmental sustainability initiatives to reduce these impacts. These measures range from waste reduction efforts to the reuse of materials and the creation of awareness among their participants. The biggest drivers of environmentally sustainable behaviour are intrinsic motivation, the relative advantage gained by measures and increased awareness among the participants of the events. The biggest constraints are budget, a lack of knowledge and a lack of sustainable alternatives.

The municipality holds an important role in the process of implementing environmental sustainability measures and can act both as driver and constraint. There are various ways for the municipality to improve environmental sustainability at the events. As it turns out from the interviews, the municipality can improve environmental sustainability at outdoor sports events by stimulating organisations to pay attention to environmental sustainability, or by punishing them if they fail to do so. Four recommendations can be made for future policy.

When it comes to stimulating, there are three things that the municipality could do. First, the municipality could provide a financial incentive in the form of a green permit or subsidies. If organisations pay attention to environmental sustainability, they could receive a discount on their permit or an extra subsidy. Second, the municipality could take away the constraint of a lack of knowledge by stimulating the sharing of knowledge and best practices among event organisers. The municipality could provide information and by providing a platform on which this information can be shared. The sharing of knowledge is crucial for organisations to advance in their environmental efforts. Third, the municipality could invest in facilities like fixed power and water tap points on locations that they mark as 'event location'. This way, they could prevent organisations from using aggregates and plastic water bottles.

From the scientific literature, it appears that government regulations are the biggest driver of environmentally sustainable behaviour. However, during the interviews, it became clear that this is not the case in Utrecht. The municipality and the sports events organisations in Utrecht fear the introduction of too many or too strict regulations. They are afraid that events would not be able to meet environmental sustainability requirements and will be scared away from the city. However, the municipality and the sports events organisers are also honest in admitting that a lack of this kind of regulations causes environmental sustainability to be treated as a sub-goal instead of a main-goal. The introduction of mandatory environmental sustainability requirements in the permit or the subsidy application process could form a much-needed stick with which both organisations and the municipality are forced to pay more attention to environmental sustainability. This way, real steps can be taken in the direction of environmentally sustainable events.

In total, it can be said that the sports events industry in Utrecht has indeed not been paying much attention to environmental sustainability with the organisation of their events. However, an increase in the intrinsic motivation of the event organisers and increased awareness among the participants of the events are now driving sports events organisers in Utrecht towards the organisation of more environmentally sustainable events. The municipality could help speed up this process by providing a financial incentive, stimulating the sharing of knowledge, investing in facilities and by introducing regulations. Although the sports industry might not be up to date yet with other industries like the festival industry, it seems as that if everyone remains committed to solving environmental issues, they are well on their way.

## Preface

One of the biggest advantages of living in Utrecht, I find, is that there is always something going on. Food truck festivals, dance events, readings, cultural get-togethers... Almost every event you can think of has a place within the event scene of Utrecht. The number of events organised has increased throughout the years. What has also increased throughout the years, are the worries about climate change and the way we take care of our natural environment. People are more aware of their impact on the environment and expect organisations to take responsibility for their negative impacts on the natural environment.

Good examples of this are the pressures that are being put on music festivals to find solutions for their usage of plastic drinking cups and on food truck festivals to come up with more sustainable ways of serving their food. Events that seem to have stayed out of the spotlights so far are sports events. I have personally always been a fan of sports events. I have participated in various 'survivalruns' and 'mudruns', running, crawling and swimming my way through and over beautiful tracks through forests and fields. The connection with the natural environment at these events is stronger than at any other type of event. Yet, the pressure from society to improve environmental sustainability seems to be focussed mainly on music- and food events.

For my internship at the municipality of Utrecht, I dove deeper into the world of outdoor sports events and tried to find out what the current state of affairs is surrounding environmental sustainability at these events. Is the impact of sports events on the natural environment ignorable? Are organisers aware of their impact? Are there ways to improve environmental sustainability at these events? These questions formed the starting point of my research. By answering these and other questions, I hope to have contributed to the realisation of the broader ambition of the municipality: that all events in Utrecht should be organised sustainably by 2022.

To be able to create this final product, I have received help from various parties. I would like to thank my mentors from the municipality of Utrecht, Michel Winkelman and Nadim van Minnen, for how welcome they made me feel at the municipality and how patiently they taught me the ropes of what it means to be part of a governmental institution. I would particularly like to thank all the respondents of this research for the time they took to participate, despite their busy schedules. Lastly, I would like to thank my supervisor from Radboud University, who helped me maintain my focus throughout the research.

I hope you think about this research the next time you swim, walk, run or cycle your way through nature, and that it makes you realise that what you see around you cannot be taken for granted.

Maaïke Notenbomer  
23<sup>rd</sup> of September 2019

## List of Abbreviations

WCED	World Commission on Economic Development
CSR	Corporate Social Responsibility

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## 1. Introduction

Since the beginning of human history, sports hold an important place in our society. Sports can improve health, entertain people and stimulate social interactions (Pernecky & Lück, 2013). Throughout the years, sports events have attracted the attention of both policymakers and scholars alike. Sports events can act as catalysts for economic development and urban regeneration (Wilson, 2006). Because of their recognised promise as an economic driver and their ability to socially and culturally connect, they have claimed their place in government policies and are increasingly considered in decision-making (Pernecky & Lück, 2013).

### Research motivation

The municipality of Utrecht actively promotes all kinds of sport within its municipal borders, claiming that ‘small and large sport events make Utrecht a real sports-city’ (Gemeente Utrecht, 2019). In 2015, the Tour de France began in Utrecht, drawing thousands of sports fans to the city. Next year, in 2020, Utrecht will once again form the décor of a great wheeler competition: the Vuelta de Espana. With the policy to actively draw these and smaller events to Utrecht, the impacts of sports events have become more visible. With the impact of these events becoming more visible, questions have been raised about the responsibility for both the negative and positive consequences of sports events (Laing & Frost, 2010). The call for environmental sustainability from society has increased (Dickson & Arcodia, 2010). The municipality recognises this and has outspoken the ambition that all events in Utrecht should be organised sustainably by 2022 (Gemeente Utrecht, 2018). However, it is unsure how this challenge must be addressed.

### Societal relevance

Apart from having an impact on the economy of the hosting city, country or community, events also have an impact on the natural environment (Cavagnaro, Postma & Neese, 2012). The growth in the number and size of events brings with it issues of sustainable management, problems surrounding waste and pollution, the over-exploitation of places and shortages of available resources (Pernecky & Lück, 2013). Sports facilities, events and activities all have an impact on the environment – the environmental footprint of sport is significant (McCullough, Pfahl & Nguyen, 2016). Large scale sporting events often become miniature ecological disasters, partly because of the amount of plastic waste they leave behind (Gabbatiss, 2018).

The socially significant role of sport asks for a response to environmental issues by everyone in the sector (Mair & Laing, 2013). As a response to public concerns, some event organisers have started to implement sustainable initiatives concerning transport, energy, water and waste. However, many others are not changing their course due to the idea that sustainability efforts are cost-prohibitive and difficult to implement (Dodds & Walsh, 2018). As a result, most sustainability initiatives that are being implemented at outdoor sports events are the bare minimum of what municipalities propose and what the events need to do to operate (Taylor, Bennett & Woodward, 2014). If event organisers and policymakers alike fail to meet the increasing expectations of society, this can cause negative publicity and have negative implications for future support (Laing & Frost, 2010). There thus is a need from both policymakers and event organisers to know what can be done to organise events sustainably, to reduce negative environmental consequences and to meet society’s expectations.

### Scientific relevance

Literature about the sustainability of sports events usually pays attention to economic and social sustainability. Much research has been conducted about the economic benefits and social impacts that are being associated with hosting major sports events, such as the Olympic Games and the FIFA World Cup (Collins & Flynn, 2008; Gratton, Dobson & Shibli, 2000; Tomlinson & Young, 2006; Smith, 2009; Hall, 2012; Andersson, Armbrecht & Lundberg, 2017). Several scholars are working on developing methods to determine the economic and socio-cultural impacts of those major sports events on host communities (Dickson & Arcodia, 2010). When it comes to environmental sustainability, however, these issues have long been missing from the (sports) events literature (Laing & Frost, 2010; Getz, 2010).

The environmental impacts of outdoor (sports) events have remained underexposed in the scientific debate, while the effects of these events extend far beyond their spatial and temporal boundaries (Brooks, Magnin & O' Halloran, 2009). It is only in recent years that it has been recognized that outdoor sports events can produce significant and long-lasting environmental damage (Dodds & Walsh, 2018). Interestingly, the lack of academic research focused on environmental sustainability at outdoor sports events is juxtaposed with the increasing interest by event organisers and policymakers to meet expectations of society to solve sustainability issues (Henderson, 2007).

The sport industry is deepening its commitment to implementing environmental sustainability initiatives, but studies on these efforts and their evaluation are rare (Trail & McCullough, 2019). There are few best practices and no overarching framework on the implementation of environmental sustainability initiatives at outdoor sports events, even though the need for this information has increased exponentially throughout the years (Dodds & Walsh, 2018; Laing & Frost, 2010). By exploring the environmental efforts that have been made by sports events organisations in Utrecht so far, and by evaluating these efforts, this study contributes to filling part of this information gap.

### Research objective

The municipality of Utrecht wants to find out to what extent sports events in Utrecht are organised in an environmentally sustainable way and what can be done to create (more) sustainable events. This research aims to investigate what the current state of affairs is, and to what extent the municipality and sports events organisers can work together to solve environmental issues. The following main research question is created:

*'What is the current state of affairs surrounding environmental sustainability at outdoor sports events in Utrecht and which factors influence the implementation of environmental sustainability initiatives at these events?'*

To answer this main question, the following sub-questions have been created:

1. To what extent do sports events organisers in Utrecht pay attention to environmental sustainability with the organisation of their events?
2. Which factors influence the environmental sustainability policy of sports events organisations?

3. To what extent does the municipality of Utrecht pay attention to environmental sustainability at outdoor sports events?
4. Which role can the municipality play in the process of implementing environmental sustainability initiatives at outdoor sports events?

By answering these questions, this research will provide an overview of environmental efforts that are being made at outdoor sports events. The research will provide sports events organisers and the municipality of Utrecht, but also other policymakers and entrepreneurs in the industry, with guidelines on how to evaluate these efforts and how to create more environmentally sustainable events.

### Structure

To gain insight into the motives behind the choices that are being made by event organisers and the municipality, interviews have been chosen as a suitable method for this research. A theoretical framework has been established based on existing relevant scientific literature. In the theoretical framework of Chapter 2, an overview is given of the literature that is relevant for this research. It will be discussed what sustainability is, and what the current relationships are between the sustainability discourse and outdoor sports events. This framework provides the basis for the interview topic list. In Chapter 3 the research design is being discussed, in which the choice for the research method is explained and the topic list for the interviews is presented. Ten event organisers, three employees of the municipality of Utrecht and one sustainability expert have been interviewed. The results of these interviews will be shown in Chapter 4, after which this research is being concluded in Chapter 5 with recommendations for further research.

## 2. Theoretical Framework

For centuries, outdoor events have presented ‘not only joy, communion, participation in Dionysiac life, but also cooperation with the natural order’ (Lefebvre, 1991, p. 203). Sustainability, in a broad ecological context, has always been a quality of outdoor events (Zifkos, 2015). Now that the event sector has experienced an unprecedented boom in popularity, this sustainability is under pressure (Cavagnaro et al., 2012). At outdoor events, extensive amounts of power, water and disposable plastics are being used. There also is a massive amount of transport from and to the event (Dickson & Arcodia, 2010). The ecological impacts of outdoor events are extending well beyond the time and space of the event itself (Brooks, Magnin & O’Halloran, 2009).

However, if events are properly managed, their impact on the environment can be kept minimal (Cavagnaro et al., 2012; Dickson & Arcodia, 2010). Events even have potential to show sustainability in action and every sustainably produced event can inspire and motivate others to act (Brooks et al., 2009; Dickson & Arcodia, 2010). Before the connection between outdoor sports events and sustainability will further be explained, it is first important to look at what sustainability means in the context of this research.

### 2.1 Sustainability

The modern expression of the idea of sustainability was coined when scholars acknowledged that there might be physical and social limits to economic growth (Zifkos, 2015). Throughout the years, sustainability has become a catch-all term (Pernecky & Lück, 2013; Hall, 2010). Everything concerning socially responsible living, the environment, ecology and future-orientated thinking is nowadays classified within the concept of sustainability. Misuse of the term has led to confusion around the definition and aversion to the use of the term (O’Rourke, Irwin & Straker, 2011).

Many authors that write about the concept of sustainability agree that the definition of the World Commission on Economic Development (WCED) is the one that is most commonly referred to (O’Rourke, Irwin & Straker, 2011; Zifkos, 2015; Dickson & Arodia, 2010; Raj & Musgrave, 2011). In their ‘Our Common Future’ or ‘Brundtland’ report, the WCED describes sustainability as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (WCED, 1987, p. 24). The Brundtland report suggests that there are three main dimensions to the idea of sustainability: environmental, economic and social sustainability. These three are also referred to as the three p’s: people, planet, profit; or as the ‘triple bottom line’. Elkington (1999) was one of the first to suggest that the concept of sustainability might require reporting against this triple bottom line to measure performance in sustainable development terms.

#### 2.1.1 Triple Bottom Line

The triple bottom line approach originally stems from accounting and finance. Throughout the years, the method has been applied and developed for the tourism context, and more specifically for the event and festival context (Andersson, Ambrecht & Lundberg, 2012). The focus of the research surrounding outdoor sports events and event tourism has been on their economic impacts, the planning and marketing of events at the destination level and the

motivations for event tourism (Getz, 2010). More recently, the negative impacts of event tourism at all kinds of events, including sports events, are being researched.

The triple bottom line approach is recognized as one that can measure both the positive and the negative impacts of events when it comes to sustainability (Andersson et al., 2012). The approach fuses the social, economic and environmental aspects of activities into one framework (Hede, 2008). It consists of social equity, economic efficiency and environmental integrity (Smith, 2009). The method is used to measure the progress of various organisations towards sustainable development (Smith, 2009). The challenge of sustainable development is to find a good balance between all three aspects. When social expectations are met, the negative impacts on the environment are kept to a minimum and organisations make a profit, it can be said that events are organised in a sustainable way (Elkington, 1999).

Without denying the importance of the economic and social aspect of sustainability, this research will focus on the environmental aspect. In festival and event research, studies on the environmental impacts have not been as prominent as studies on economic and socio-cultural impacts (Getz; 2008; Andersson et al., 2012). Throughout the years, the environmental aspect of sustainability has become recognized and, in the light of global warming, has attracted more attention (Laing & Frost, 2010). Negative impacts of events and event tourism on the environment have become a subject of study more and more (Getz, 2008; Andersson et al., 2012). The growth in the number and size of sports events in recent years has made their environmental impacts more visible and has increased the need for research on environmental sustainability (Dodds & Walsh, 2018).

### 2.2 Environmental sustainability

The definition of environmental sustainability is often framed by the previously mentioned Brundtland Report, focussing on preserving our natural environment for future generations (Mallen, Adams, Stevens & Thompson, 2010a). In an organisational context, environmental sustainability describes how a company deals with the environmental implications of its operations, products and facilities. According to Mallen and others (2010a), it is how the efficiency and productivity of resources are maximized, and practices that might negatively affect the enjoyment of natural resources by future generations are minimized. Environmental sustainability involves all practices to protect the natural environment, for this study within the organisation of sports events.

In recent years, much effort has gone into moving the discussion surrounding the definition of environmental sustainability and general aversion against the term, to embracing environmental sustainability as an important part of everyday life (O'Rourke, Irwin & Straker, 2011). This is also referred to as the paradigm shift towards environmental thinking, as opposed to human-centred thinking (O'Rourke et al., 2011). There is a movement away from exploiting the environment towards being responsible and valuing the protection of the natural environment (Mallen, Stevens, Adams, McRoberts, 2010b). Although there is still plenty of scepticism, environmental thinking is winning ground and there is a general belief within society that something needs to be done (McCullough et al., 2016). Organisations within all industries, including that of (sports) events, must now pay attention to their environmental sustainability to some extent. Events that are oriented towards sustainability

can be considered part of an evolving socially and environmentally responsible community (O'Rourke et al., 2011).

Environmental sustainability is context-specific, which means that the challenges surrounding environmental sustainability vary between industries and even within industries (Mallen et al., 2010a). For sports events, this means that every event is different. Organisations need to figure out what the specific environmental sustainability challenges for their events are, after which they can develop strategies specifically for their context (Mallen et al., 2010b). This way, adequate responses can be formulated for strategic environmental issues. However, environmental issues contain competing elements and are complex, just like the theoretical and ideological approaches for addressing these issues (McCullough et al., 2016). A solution to one environmental problem might cause different environmental problems in other areas. What can be said for certain, is that solutions for environmental problems all start with the creation of awareness.

### 2.2.1 Environmental consciousness in the sports industry

In recent years, sports organisations have started to acknowledge the environmental impact of sports. An example of this is the process of greening that is taking place at mega sports events. Organisers of mega sports events have started to actively address their recognized contribution to environmental degradation (McCullough et al., 2016). The 2008 Summer Olympics in Beijing, for example, spent more than seventeen billion US dollars to address environmental issues (McCullough et al., 2016). Another example is that of the FIFA implementing the 'Green Goal programme', meaning that environmental damage is now being considered when judging World Cup bids (McCullough et al., 2016). Major organisations like FIFA and the IOC thus place importance on environmental sustainability when determining where and how their events are being organised. However, these organisations lack the enforcement of such policies once the bids for hosting these events have been accepted (McCullough et al., 2016). Apart from that, if one looks at the size of events like these, and their energy and water usage, much improvements are yet to be made.

In the following of the major organisations, smaller organisations have started to address their environmental issues as well. These issues vary from extensive water usage to emissions from transport, but one problem that is currently a hot topic in the media is the creation of (plastic) waste. The production of unrecycled waste is one of the largest contributing factors to the environmental impact of an outdoor (sports) event if one leaves out externalities such as carbon emissions from transport movements (Dodds & Walsh, 2018; Andersson & Lundberg, 2013).

### 2.3 Plastic waste

It is no secret that events, by their very nature, create waste. Events throughout the world are accompanied by waste generation, creating a shock load to the existing system (Gabbatiss, 2018). Big outdoor (sports) events can subsequently increase the quantity of daily average waste, which leads to increasing demands on waste management and disposal services (Dodds & Walsh, 2018). One of the most common types of waste found at outdoor events is plastic, in the form of water bottles and disposable cups (Dodds & Walsh, 2018).

It is only recently that scientific attention for environmental sustainability at events has turned to plastics as a potential threat for the survival of our planet (Villarrubia-Gómez, Cornell & Fabres, 2018). Plastic production globally in 2016 was estimated to be more than 300 million tons, half of which was used once and then thrown away: the so-called disposable plastics (Elliott, Leipzig, Ruxton & Leeson, 2016). Plastic cutlery, plastic or laminated paper dishes, plastic or laminated paper cups, foam containers and plastic bottles are all examples of disposable plastics (Razza, Fieschi, Degli Innocenti, Bastioli, 2009).

At events, disposable plastics are used to simplify management and avoid washing-up. Using disposable plastics has the negative consequence of both increasing the amount of waste and changing the quality of the waste produced (Razza et al., 2009). At outdoor sports events, huge amounts of plastic are being used, mostly in the form of drinking cups (Barber, Kim & Barth, 2014). In 2021, European legislation will ban the use of disposable plastics like straws, balloon sticks and cutlery: everything for which there is no reasonable alternative. This makes the challenge of plastic waste an urgent one since action will have to be undertaken but the 'how' is still unclear. Some event organisers are trying to tackle the waste problem by rethinking their use of plastic products and switching to more sustainable initiatives (RAW foundation, 2018). One of these initiatives is the 'hard cup', a plastic cup for which you pay a deposit at the bar, after which you keep it with you and exchange it for a new one every time you get another drink.

Whereas initiatives like the hard cup are widespread throughout the music- and festival industry, they are rarely seen at sports events (Gabbatiss, 2018). This creates the image that the sports industry lags in implementing environmental sustainability initiatives when compared to other industries. However, now that sports events organisations have started to acknowledge the environmental impact of their events, they are starting to integrate environmental concerns into their business strategies (Taylor et al., 2014). Organisations can struggle to keep up with the call from society for more environmental sustainability, but they can also use it to their advantage. A shift is taking place from thinking of implementing environmental sustainability initiatives from a cost-saving perspective to a strategic one (McCullough et al., 2016). Environmental sustainability is no longer something that is only achieved if it is profitable: it is being used as a strategic Corporate Social Responsibility (CSR) and marketing tool.

### 2.4 Corporate social responsibility

There are different attitudes towards the question of who is responsible for the positive and negative outcomes of sports events. These attitudes can be divided into two categories. The first one is that of environmental problems being an issue that the government will, or even must, manage (McCullough et al., 2016). The contradicting view is that environmental sustainability is an issue that can be addressed by influential industries and private organisations, like sports events organisations. In this view, organisations are expected to behave socially responsible for a wide range of issues (Kallio & Nordberg, 2006). This is where corporate social responsibility comes into the picture.

CSR has been defined differently throughout the years. Van Marrewijk (2001) states that companies with CSR strategies integrate social and environmental concerns in their business

strategies and their interactions with stakeholders. They openly demonstrate triple bottom line performances. Something similar has been said by Frederick (1988), who explains that companies should not only include social and environmental concerns in their strategies but that they should also be accountable for the effects of their actions on the environment and the local community. In general, almost all definitions of CSR contain a social, economic and environmental dimension (Dahlsrud, 2008).

Companies have always generated social, environmental and economic impacts. They have also always been concerned with stakeholders, like the government and customers, and have always dealt with regulations (Dahlsrud, 2008). What is new, however, is the context in which companies operate. Due to globalization, various national legislations and new stakeholders are putting expectations on businesses (Trendafilova, Ziakas & Sparvero, 2017). This puts pressure on companies to optimally balance social, environmental and economic impacts of their activities in their decision-making processes. In recent years, attention has shifted towards the environmental impacts of companies, raising questions about the responsibility of both their positive and negative outcomes (Dodds & Walsh, 2018).

Society increasingly looks to businesses and organisations to address various social issues, like poverty and environmental degradation (Trendafilova et al., 2017). This increasing call from society stimulates and pressures sports events organisers to implement environmental sustainability initiatives. It is now widely thought that from an ethical perspective, organisations must contribute to the well-being of their environment (Dahlsrud, 2008). For the sports industry, where many actions take place in the public spotlight, this pressure is extra high (Kellinson & Hong, 2015). Figure 1 shows a model for environmental CSR adaptation within the sports industry ((Trendafilova, Babiak & Heinze, 2013). As is shown in Figure 1, various drivers and constraints influence whether a sports organisation implements environmental sustainability initiatives and adopts CSR strategies.

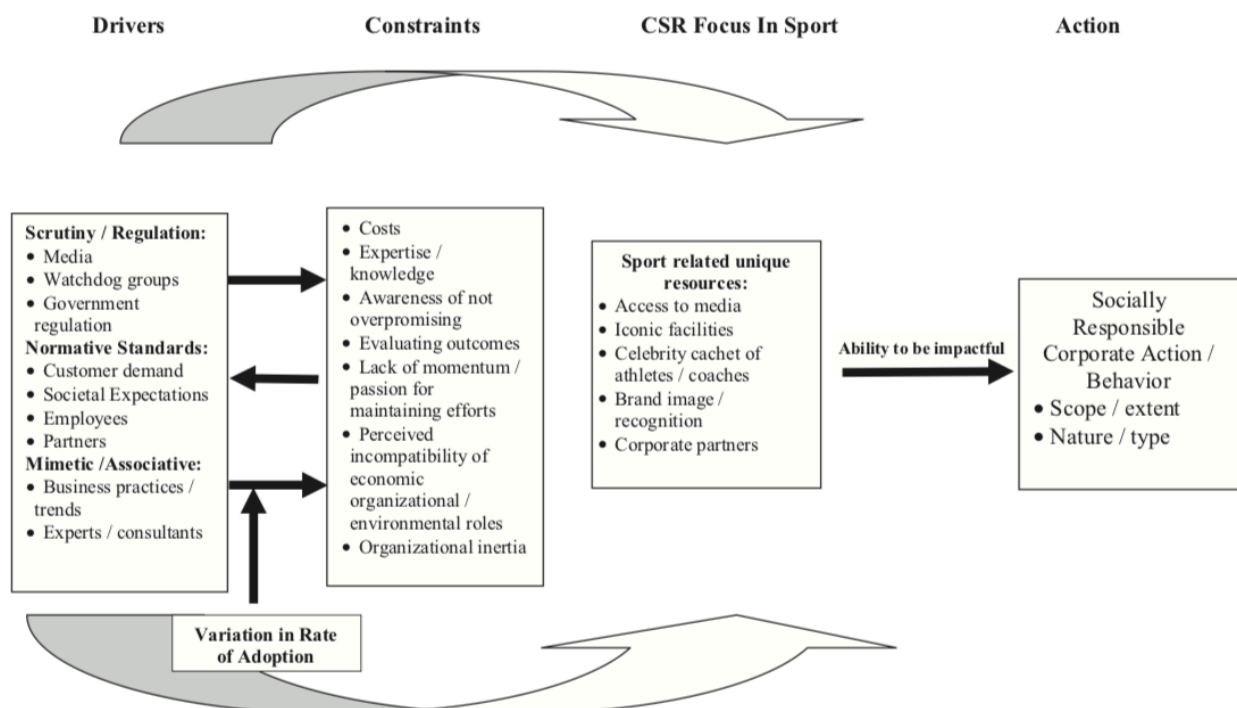


Figure 1: A model for CSR adaptation within the sports industry (Trendafilova et al., 2013)

### 2.4.1 Drivers

One of the most important drivers of CSR behaviour is the formation of new regulations. The government can create rules surrounding environmental sustainability, to which every organisation must comply. Regulations can form a stick with which to force organisations to behave in an environmentally friendly way and to implement environmental sustainability initiatives (Trendafilova et al., 2013). Apart from regulations, normative standards like cultural expectations of society, employees and partners can put pressure on organisations to pay (more) attention to environmental sustainability (Trendafilova et al., 2013). Sports events organisers are constantly being watched by internal and external stakeholders that apply pressure on them to justify their actions and strategies to prove themselves as legitimate (McCullough et al., 2016). Various stakeholders like environmental activists, media personnel and political officials can impact decision-making surrounding environmental measures (McCullough et al., 2016).

Associative pressures like trends within the industry and the behaviour of other organisations within the industry can influence to what extent an organisation focusses on environmental sustainability as well (Mallen et al, 2010b). Expert partners and consultants can advise organisations on how to implement environmental sustainability initiatives. Brand differentiation can also play a role in implementing initiatives. Branding your event as being environmentally sustainable can not only attract conscious participants, but also potential sponsors (Kellinson & Hong, 2015).

Regulations, normative standards and associative pressures work together and reinforce one another. They create a broad trend around environmental CSR, often through the vehicle of media (Trendafilova et al., 2013). All the attention for the negative environmental impacts of organisations has led to an expectation that organisations must hold a certain level of voluntarism when it comes to environmental sustainability, to perform above regulatory requirements (Dahlsrud, 2008). This is the minimum performance level that is deemed acceptable by society and stakeholders, which is not always the same as the regulatory requirements proposed by the government (McCullough et al., 2016). A question that troubles companies, is which level of voluntarism above the regulatory requirements is accepted as sufficient (Dahlsrud, 2008). There is uncertainty about the extent to which stakeholders, like visitors and participants, expect environmental measures by the organisation (Mohr, Webb & Harris, 2001). This uncertainty causes organisations to model themselves after other organisations and practices that are considered legitimate and successful by society. This way, organisations attempt to legitimize their actions.

### 2.4.2 Constraints

The increased attention for environmental sustainability has sparked all kinds of programs and initiatives throughout the sports industry. However, implementing environmental sustainability initiatives remains complex. Environmental sustainability is not something that can be reached within a day. Hosting sports events requires the coordination of several stakeholders: different levels of government, the community, sponsors, media organisations, various levels and types of sports organisations involved and athletes (Naraine, Schenk & Parent, 2016). It takes various decisions by many different stakeholders over decades that will move everyone in the sector towards environmental sustainability. The movement towards environmental sustainability is hindered by a variety of struggles, conflicts and

negotiations. These constraints can temper organisational responses and may limit the implementation of environmental sustainability initiatives (Trendafilova et al., 2013).

A primal fear when implementing environmental sustainability initiatives is that sustainability is rather expensive. To this day there still is a taboo that any sustainability effort is cost-prohibitive and difficult to implement (Dodds & Walsh, 2018). Sports events organisers can experience costs as an obstacle when considering sustainability measures (Dodds & Walsh, 2018). Apart from costs, complexity is another major constraint. The complexity of the measure plays a role in the decision to implement it (McCullough et al., 2016). If an organisation does not have the knowledge or personnel, complex measures are often impossible to implement.

The attitude of an organisation towards environmental sustainability is a factor that can both be a constraint or a driver. If an organisation is aware of environmental issues and committed to reducing its environmental impacts, they will have an intrinsic motivation to implement environmental sustainability initiatives (McCullough et al., 2016). However, if organisations are unaware of their impacts or simply do not care, they will lack the passion to implement, maintain and improve environmental sustainability initiatives. A lack of motivation is often coupled with a lack of a leading figure that finds environmental sustainability important (McCullough et al., 2016). A constraint that is in line with this, is the perceived incompatibility of environmental sustainability with economic, environmental and/or organisational roles. If a measure is deemed unrealisable because it does not work with the strategy or budget of the organisation, an organisation might not consider implementing it (Mallen et al., 2010b). Furthermore, if the relative advantage gained by the adoption of the measure is deemed too small, implementing the measure become unattractive (Trendafilova et al., 2013).

### 2.5 The green wave concept

The measures that sports events organisers take to reduce the environmental impact of their events are not equally distributed nor implemented. There are variations in the extent to which sports organisations embrace and adopt environmental CSR practices (Trendafilova et al., 2013). Each context to implement environmental sustainability initiatives is unique, with events varying in size, frequency and in the place where they are being held (McCullough et al., 2016). There thus is no single way to address environmental issues: every organisation implements environmental sustainability measures differently (McCullough et al., 2016).

The level of complexity of the measures organisations take reflects the stage at which an organisation is when it comes to caring about environmental sustainability (McCullough et al., 2016). The concept of waves of McCullough and others (2016), shown in Figure 2, implies that it takes various 'waves' of measures to reach various stages of environmental consciousness. There are three 'waves', with each higher wave containing elements of the previous one. When attention paid to environmental sustainability increases, the organisation will enter the next wave. Organisations can keep progressing if they stay focussed on environmental sustainability and keep advancing (McCullough et al., 2016). However, organisations can also reduce their commitment to implement environmental sustainability initiatives. They can fail to properly maintain or improve the measures they

have been implementing. If this happens, organisations remain in the same wave or can even regress to a previous wave.

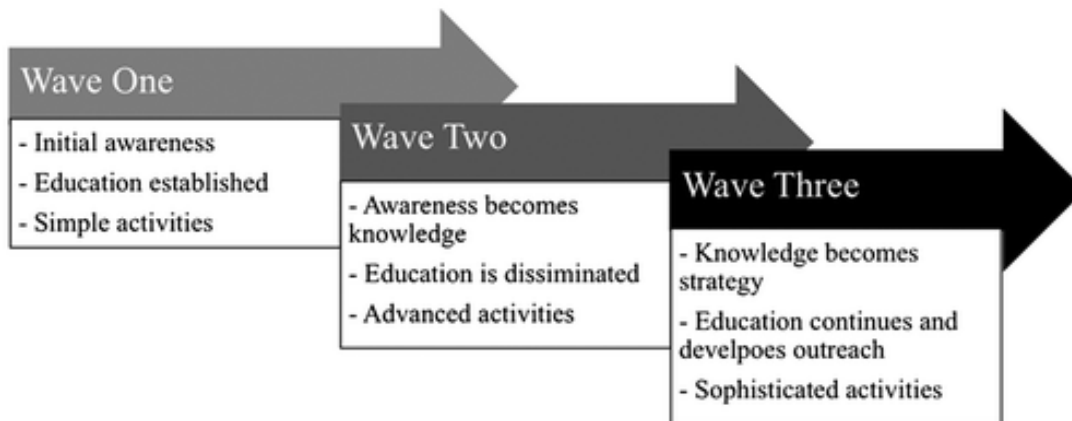


Figure 2: Waves of greening in sport (McCullough et al., 2016)

### 2.5.1 Wave one

The first wave leads to the stage in which sports events organisers become aware of environmental issues and the impact of their event(s) on the environment. Knowledge starts to surface as to the causes of environmental problems and the options available to solve them (McCullough et al., 2016). This knowledge can be obtained from sport-specific sources like other organisations and expert partners, and personal research and education. The need to act can be further sparked by various kinds of pressures, as shown in the model of Trendafilova and others (2013). External stimuli like new regulations formed by the government and an increasing call for environmental sustainability from society, together with internal stimuli like intrinsic motivation, are common drivers of environmentally sustainable behaviour.

Actions taken in the first wave are often reactionary and not yet strategic (McCullough et al., 2016). The implementation of simple environmental sustainability initiatives takes place, like recycling programmes and energy-, water- and waste reduction efforts (McCullough et al., 2016). These activities are called 'low-hanging fruit'. The benefits of these measures are that they are relatively inexpensive to implement, straightforward to understand and highly visible to all stakeholders (McCullough et al., 2016). The low-hanging fruit measures did not begin in sport, but have been implemented in other industries like the music- and festival industry, meaning that they are relatively safe to implement (Casper, Pfahl & McSherry, 2012). Another benefit of waste- and recycling measures is their physical nature (McCullough et al., 2016). This means that they can easily be measured, for example by looking at the total waste generated and the amount of waste that has been recycled. Measures of success are thus simple to establish and can lead to the development of strategic plans and the adaption of more advanced environmental sustainability initiatives (Casper et al., 2012).

### 2.5.2 Wave two

Wave two leads to the stage in which awareness becomes knowledge. Knowledge gained in wave one becomes more advanced. Information is disseminated throughout the organisation by key organisational members. This information can also be shared with other organisations, spreading awareness and knowledge of environmental issues and actions across

organisational boundaries (McCullough et al., 2016). The evaluation of environmental sustainability measures is key in the decision-making process to adopt innovations (Casper et al., 2012). Self-developed knowledge and skills within the organisation, possibly coupled with those of expert partners, allow the organisation to move beyond the simple low-hanging fruit activities and to start exploring more complicated measures (Kellinson & Hong, 2015). An element of long-term thinking arises, resulting in the consideration of relevant skill development and overall organisational cultural and structural changes (McCullough et al., 2016). This, in turn, leads to increased awareness throughout the entire organisation.

In this stage, the institutionalization of environmental sustainability initiatives takes place. A person or various persons can be elected as the point of contact when it comes to environmental sustainability (Trendafilova et al., 2013). This person (or these persons) can be charged with developing goals, objectives and measures focussed on environmental sustainability (McCullough et al., 2016). Wave two is also the wave in which the process is taking place of implementing environmental sustainability initiatives into daily organisational practice (McCullough et al., 2016). However, for many sports events organisers, the second wave is still to come (McCullough et al., 2016).

### 2.5.3 Wave three

Whereas the most important aspect of wave one is the creation of awareness and wave two to gain knowledge, wave three leads to the stage in which knowledge becomes strategy. Strategic planning for environmental issues becomes more integrated with broader strategic planning for the organisation (McCullough et al., 2016). The sharing of knowledge further increases, as close ties with other event organisers and with different levels of government take hold. Organisations begin to use what they have learned through trial and observation into communication with external stakeholders, like suppliers (Casper et al., 2012). In this wave, members of the organisation move towards environmental leadership within society and at a local level. Goals are set to change the behaviour of visitors and participants at the event, but mostly, in their everyday lives (McCullough et al., 2016). To this day, reaching this third wave remains a big challenge for many sports events organisers.

### 2.5.4 Challenges within the wave model

Processing throughout the waves does not mean that all environmental sustainability initiatives are successful or without critique. Diffusion of ideas takes time and coordinated communication, factors that both must be present for environmental sustainability strategies to succeed (McCullough et al., 2016). Apart from that, the variation in interpretations as to what environmental sustainability is, and what it takes for something to be sustainable, leaves room for debate and discussion (Zifkos, 2015).

The placement of the various organisations within the wave model can always change because of progress and regress of environmental strategies and actions, caused by for example personnel and technology changes (Trendafilova et al., 2013). At each stage, there are 'tipping points' where an organisation might regress (McCullough et al., 2016). In wave one, the initial momentum to implement an environmental CSR strategy may be driven by internal factors such as management commitment, or by management recognition that environmental sustainability can create financial value for the organisation (Epstein, 2018). If

these pressures cease to exist, for example, because of the manager leaving, the wave regresses. This is often coupled with constraints such as increased cost and increased complexity (Trendafilova et al., 2013).

So, waves progress forward, but organisations can also regress their movement through the waves. Since environmental issues have only recently attracted more attention in the sports industry, most sports events organisations have not progressed far yet within the wave model (Dodds & Walsh, 2018).

## 2.6 The role of the government

One of the reasons society increasingly looks to business and organisations to address environmental issues, is because of the current neoliberal philosophy of many local and national governments (Trendafilova et al., 2017). Throughout the years, funding for social programs has decreased and more responsibility has been put with private companies and organisations. It is only recently that question marks have been put with this philosophy, and the belief that environmental problems are an issue that the government can or even must manage is winning ground (McCullough et al., 2016). With the increasing awareness surrounding environmental problems, society is putting more pressure on governments to pay attention to environmental sustainability (Trendafilova et al., 2017). Governments themselves are also increasingly interested in environmental sustainability, as they have become more sensitive to their social and environmental impacts and the evaluation of the costs and benefits of their activities (Epstein, 2018).

As Trendafilova and others (2013) and McCullough and others (2016) describe, government regulations are one of the biggest drivers of the implementation of environmental sustainability initiatives. Government regulations can seriously influence the extent and direction of environmental CSR activities by sports events organisations, showing the importance of governmental interference (Trendafilova et al., 2017). Nowadays, government regulations often require that companies and organisations address sustainability. A recent trend is the involvement of state and local governments in mandating that new facilities meet specific environmental standards (Trendafilova et al., 2017). Governments can also ask for a certain level of sustainability when approving a permit application. Noncompliance with regulations can be costly, as this can result in penalties and fines, lost productivity due to additional inspections and a damaged reputation (Epstein, 2018).

Whereas government regulations can form an important motivation to implement environmental sustainability initiatives it also has a downside. The idea that sustainability efforts are cost-prohibitive and difficult to implement results in most sustainability initiatives being the bare minimum of what municipalities propose and what events need to do to operate (Taylor et al., 2014; Dodds & Walsh, 2018). Besides that, sports events are a category of events that are often organised by volunteers and make small to no returns. The question is if events like these can implement environmental sustainability initiatives without (financial) help (Trendafilova et al., 2017). So, if regulations are not strict enough, the question is whether organisations will implement sufficient environmental sustainability initiatives and if regulations are too strict, the question is whether the event can survive.

Apart from regulations governments can use different means to stimulate the implementation of environmental sustainability initiatives at outdoor sports events. Instead of punishing organisations, governments can use methods that seduce organisations to implement environmental sustainability initiatives. Governments can make investments in facilities or provide a financial incentive in the form of subsidies. Such a financial incentive can be an important reason for an organisation to ‘go green’, especially if the organisation is small and does not possess sufficient financial means itself (Trendafilova et al., 2017).

### 2.7 Conceptual model

To give an overview of the insights that are gained in this theoretical framework, a conceptual model has been created. This model is shown in Figure 3. The model is based on the model for CSR adaptation within the sports industry of Trendafilova and others (2013), shown in Figure 1, and the wave model by McCullough and others (2016) shown in Figure 2. The conceptual model shows the process of sports events organisations implementing environmental sustainability initiatives, the drivers and constraints that influence this implementation and the role the municipality plays in the decision process.

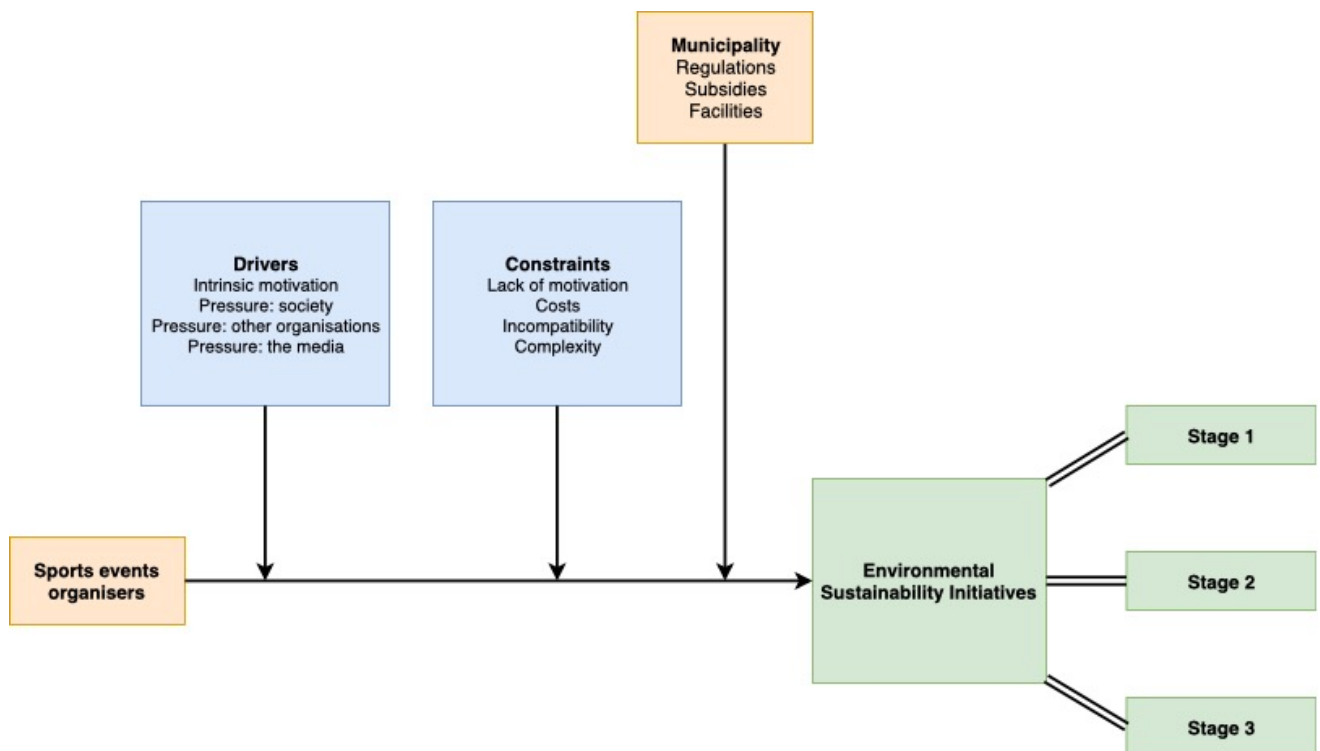


Figure 3: Conceptual Model

When it comes to drivers, one of the most important ones is intrinsic motivation: if there is no real commitment, implementing environmental sustainability initiatives becomes very difficult (McCullough et al., 2016). The most important external driver is government regulations (Trendafilova et al., 2013; McCullough et al., 2016; Epstein, 2018). The increased attention for environmental issues has ensured that there is a growing government intervention when it comes to environmental sustainability at events (Trendafilova et al., 2013). This increased attention for environmental issues has also caused various stakeholders like visitors and participants to put pressure on organisations to implement environmental

sustainability initiatives (Dahslrud, 2008; Kellinson & Hong, 2015; McCullough et al., 2016). Apart from cultural expectations of society and partners, associative pressures like the behaviour of other organisations within the industry can influence to what extent an organisation focusses on environmental sustainability as well (Trendafilova et al., 2013). Intrinsic motivation, government regulations, pressure from society and pressure from other sports events organisers are the most important drivers of the implementation of environmental sustainability initiatives.

Apart from drivers, an organisation can encounter various constraints when implementing environmental sustainability initiatives. The most important one is the opposite of the most important driver: a lack of intrinsic motivation. The most important external driver is budget: if the activity is deemed costly, the organisation is likely not to implement the measure (Dodds & Walsh, 2018). Connected with this is perceived incompatibility of the measure with the organisations business strategy: if a measure is deemed unrealizable, the measure is likely not to be implemented (Trendafilova et al., 2013). Lastly, the complexity of the measure influences if an organisation will implement it. If an organisation lacks the knowledge or the personnel to be able to implement complex measures, these measures cannot be implemented (McCullough et al., 2016). A lack of intrinsic motivation, costs and the complexity and incompatibility of measures form the most important constraints for organisations to implement environmental sustainability initiatives.

In the process of implementing environmental sustainability initiatives, the municipality can act as both a driver and a constraint. The first and most definitive way for the municipality to influence the implementation of environmental sustainability initiatives is the creation of regulations to which all organisations must comply (Trendafilova et al., 2013). By creating regulations like permit requirements, the municipality can oblige sports events organisers to pay a certain amount of attention to environmental sustainability. This can stimulate organisations to focus more on environmental sustainability, but also cause difficulties if events do not meet certain environmental standards. Furthermore, the municipality can use financial incentives to stimulate environmental sustainability, like subsidies. Granting subsidies can help decrease the constraint of costs and drive organisations to pay more attention to environmental sustainability. Lastly, the municipality can make investments in facilities, for example by installing water tap points or fixed power (Trendafilova et al., 2017).

The extent to which sports events organisers implement environmental sustainability initiatives determines in which 'stage' of environmental sustainability they are. The first stage is the stage in which sports event organisations develop knowledge about their environmental impacts and start to implement the 'low-hanging' fruit initiatives, like recycling programs (McCullough et al., 2016). The second stage is the one in which awareness becomes knowledge. Knowledge is disseminated within the organisation, shared with partners and environmental sustainability initiatives become institutionalized (Trendafilova et al., 2013). The third stage is the stage in which environmental sustainability becomes integrated with broader strategic planning for the organisation (McCullough et al., 2016). Now that the theoretical background for this research is clear, the method that is used to conduct the research is explained in Chapter 3.

### 3. Methodology

In this chapter, the methods that were used to conduct this research are discussed. To effectively answer the research questions, the study resorted to a qualitative approach. Semi-structured interviews were chosen as the best method to collect relevant data.

#### 3.1 Research method

Various factors influenced the decision to use a qualitative approach. The nature of the research is one of the most important ones. The process of implementing environmental sustainability initiatives, with all its different stakeholders, drivers and constraints, is a complicated phenomenon. The goal of this research is to discover the opinions of the sports events organisers and the municipality on environmental sustainability. This research aims to find out what the reasons behind the given answers are: we do not just want to know if sports events organisers implement environmental sustainability initiatives, but also why or why not, and how this is influenced by the municipality. When researching complex social structures and issues like this, qualitative methods are the most suitable (Scheepers, Tobi & Boeije, 2016).

Of all qualitative methods, semi-structured in-depth interviews were chosen as the best method to gather information. By interviewing involved experts and stakeholders, the views and opinions of the respondents can be discovered, as well as the reasons behind those views (Cresswell, 2009). This leads to detailed information and allows for the explanation of why respondents see things the way they do (Scheepers et al., 2016). Another reason for the choice of semi-structured interviews is the size of the research population. Since there is only a limited number of outdoor sports events in Utrecht, the group of sports events organisations is well manageable. This way long, in-depth interviews can be conducted, to obtain more detailed information (Scheepers et al., 2016). In total, fourteen people participated in the study. Ten sports events organisers, three employees of the municipality and one sustainability expert.

By using the conceptual model and information from various meetings with personnel of the municipality of Utrecht, a topic list has been created. This topic list is shown in Appendix I. This topic lists consists of five general topics: general information about the respondent, general sustainability strategy of the organisation, plastic, drivers and constraints and the role of the municipality. These five topics contain predefined, more general formulated questions. The topic 'general information about the respondent' is used to find out what the role of the respondent within the sports events organisation. The topics 'general sustainability strategy of the organisation', 'drivers and constraints' and 'the role of the municipality' are based on the most important concepts of the conceptual model. Since the municipality worries about the amount of plastic waste that outdoor sports events in Utrecht leave behind, they wanted emphasis placed on plastic. Therefore, 'plastic' was added to the topic list. The topic list is the same for all the respondents, but the questions were adapted to the role of the various respondents within the environmental sustainability initiatives implementation process (employee of the municipality, sports events organiser or sustainability expert).

During the interviews, the interviewer could deviate from the five topics and their general formulated questions by changing the order of the topics or by adding new topics. While there

was room to deviate from the topic lists, the questions that were asked and the order in which they were asked turned out to largely be the same in all the interviews with the sports event organisations. The advantage of this is that it increases the validity of the data (Cresswell, 2009).

To increase the chance of people participating in the research and to make people feel comfortable, the researcher chose to conduct the interviews in Dutch. When people are interviewed in their mother language, the chances of them being able to express themselves increases (Baarda, Bakker, Fischer, Julsing, Goede, Peters & van der Velden, 2013). This does mean, however, that all the quotes in the results chapter are translated from Dutch to English. This will further be reflected on in Chapter 5. All interviews were recorded with permission of the respondents and transcribed afterwards. The transcripts were coded, which created structure in the large amount of data (Scheepers et al., 2016). At the end of each interview, each respondent was asked if he/she had any last remarks or questions. This open question at the end of the interview decreases the chance that subjects are not included in the interview and it can even lead to an entirely new area of information (Bryman, 2016). The questions were all asked as open as possible. This reduces the amount of steering by the interviewer (Cresswell, 2009).

There are also disadvantages to the choice for semi-structured interviews. A disadvantage is the possibility of an interview bias (Scheepers et al., 2016). Because of the current attention for environmental issues and the sensitivity of the subject, the respondents may give socially desirable answers. They can for example state that environmental sustainability is highly important to them, while in practice this is not the case. The position of the researcher might have also affected this: even though the researcher stated her independent position, the fact that she was an intern at the municipality might have influenced what people dared and dared not to say to her. However, if one looks at the transcripts of the interviews, it becomes clear that many sports events organisations express their open and honest opinion about their cooperation with the municipality and if and how they focus on environmental sustainability.

Apart from this, the time at which the research was being held might have influenced the results. During the months May and June, a lot of the sports events organisations organise events throughout Utrecht. This may have been the reason for some sports events organisations not to be able to participate in the research. However, of the 14 approached sports events organisations, only one could not participate because of a busy schedule. Of the other 13 sport events organisations that were approached for an interview, 10 agreed, one did not participate because the organisation no longer organises events in Utrecht and two declined because of other reasons. Some respondents did indicate that they were too busy for a face-to-face interview, but they were able to talk via the phone. This resulted in two phone interviews. These respondents were asked the same questions as their fellow-respondents, and the interviews were still recorded.

One last disadvantage of the chosen research method is that it still does not fully grasp the complicated process of implementing environmental sustainability initiatives. It would have been interesting to visit some events and see the sustainability policies of the organisations in practice. The research could then be supplemented with observations, or even with interviews or smaller surveys with participants to investigate their experience and the

importance they attach to environmental sustainability at outdoor sports events. This way, it would have also been possible to see if organisations and the municipality adhere to agreements made. However, because of the short time frame of this research and the fact that a lot of the events are only being held once a year (and thus mostly not during the research period), it was decided not to do this.

### 3.2 Case selection criteria

As mentioned earlier, there are three types of respondents within this research: sports events organisations, municipality personnel and a sustainability expert. The first phase of the respondent selection was to make an inventory of sports events organisers that organise outdoor events within the municipality of Utrecht. The internship of the researcher at the municipality is the primary reason for this geographical border. The most important source of information for the inventory was the top sport and sports events policy advisor of the municipality of Utrecht. He provided a list with the names and contact details of all the sports events organisations he knows that organise events within the municipality of Utrecht. The researcher completed this list with online research and her own knowledge: she, for example, participated in the Utrecht Survival Run a couple of times, and this event was not on the list of the policy advisor.

The final list contained fourteen sports events organisations. All fourteen of them were approached by the researcher via email to participate in a face-to-face interview. Out of the fourteen approached organisations, ten organisations agreed to an interview. These organisations are shown at the end of this chapter in Table 1. The ten organisations are responsible for the organisation of 17 sports events in 2019. These 17 events include events that have been organised for several years to events of which the first edition has yet to take place. Some of the biggest sports events that are organised in Utrecht are on the list, as well as events that attract a relatively small number of participants. The geographical spread of the events throughout Utrecht is shown in Figure 4. With this variation in events, the chance of overrepresentation of one kind of event is slim, just like the danger that the results will be incomplete because data has only been collected about one kind of event or one location. Since the Varsity is organised outside of the municipal border, in Houten, the location of this event is not shown on the map in Figure 4. The reason an interview with the Varsity was still conducted, is that they get a subsidy from the municipality of Utrecht.

Apart from event organisers, three employees of the municipality and one sustainability expert were interviewed. To investigate the view of the municipality, employees with three different roles within the municipality have been interviewed. Firstly, an interview was conducted with an employee who is responsible for the recruitment and organisation of one-off major sports events. He is currently involved with the organisation of the Vuelta. The second interview was conducted with an employee that issues permits to events. The third employee of the municipality was the previously mentioned top sports and sports events policy advisor, who is mostly concerned with yearly reoccurring events. Lastly, a phone interview was held with a sustainability expert: an employee of Green Events. Green Events is an organisation that is hired by various municipalities in The Netherlands, including that of Utrecht, to improve the sustainability of events. This makes them an essential stakeholder in this research.



Figure 4: Spread of the event locations

One thing to keep in mind is that the municipality of Utrecht has over 4000 employees. Utrecht is one of the biggest municipalities within the Netherlands. The opinions and views of the interviewed municipality employees do not automatically represent the view of the entire municipality. Because of the size of the municipality, it was not possible to interview everyone that is involved with the organisation of sports events in Utrecht. The three employees that are interviewed all hold a key position within the process of the organisation of sports events. This way it was made sure that the most crucial information is collected.

Another side-note that must be made with the research is that of a bias when it comes to the selection of the cases. The researcher only approached organisers of events that were on the list of the policy advisor and that came up during online research. The disadvantage of this is that there is a chance that organisations of outdoor sports events that do not need to apply for a permit are not included in the research. However, every event with more than 500 participants or that must meet public order and safety requirements needs to apply for a permit. The number of events that are not included will thus be limited.

### 3.3 Timeline

This research has been conducted between March 2019 and October 2019. The internship at the municipality started on the 4<sup>th</sup> of February 2019 and ended on the 31<sup>st</sup> of July. The interviews have been conducted between Monday the 27<sup>th</sup> of May and Monday the 24<sup>th</sup> of June. The most important dates of the research are:

- |   |  |
|---|--|
| - First invitation for interviews sent via email: | 21 <sup>st</sup> of May                            |
| - Reminder sent:                                  | 28 <sup>th</sup> of May & 11 <sup>th</sup> of June |
| - First interview conducted:                      | 27 <sup>th</sup> of May                            |
| - Last interview conducted:                       | 24 <sup>th</sup> of June                           |
| - Presentation of results at the municipality:    | 26 <sup>th</sup> of September                      |

### 3.4 Data analysis

All interviews were recorded and transcribed, which resulted in a transcript of 80.000 words. The researcher analysed the data in three steps. The first step consisted of open coding. The labelling of the data in this step mostly resorted to what Saldana calls ‘... Initial Coding, and/or Values Coding’ (Saldana, 2009, p. 48). The researcher read the interviews and placed comments at relevant fragments of text. From these fragments, words were picked that were turned into codes. This way, the codes remain close to the material and are less of an interpretation of the researcher. This way of coding makes it easier to compare the different perspective of the respondents on the problem (Baarda et al., 2013).

The second step consisted of comparing the codes. Related codes were placed under an overarching theme-code, also referred to as ‘axial coding’ (Baarda et al., 2013). Sometimes, the codes from the first step could be placed under multiple theme-codes. In this case, the codes were placed under the most applicable theme-code. This second step resulted in 33 overarching theme-codes. Many of these theme-codes refer to concepts in the conceptual model, like the codes ‘regulations’ and ‘motivation’, that can refer to the concept in the conceptual model of drivers or constraints. This was to be expected since the questions in the topic list are based on the conceptual model. Examples of the open coding of step 1 and the axial coding of step 2 are shown in Appendix II. All the original fragments and codes can be found as comments in the transcripts of the interviews. For clarification, some screenshots of the first two steps of coding are shown in Figure 5 and Figure 6.

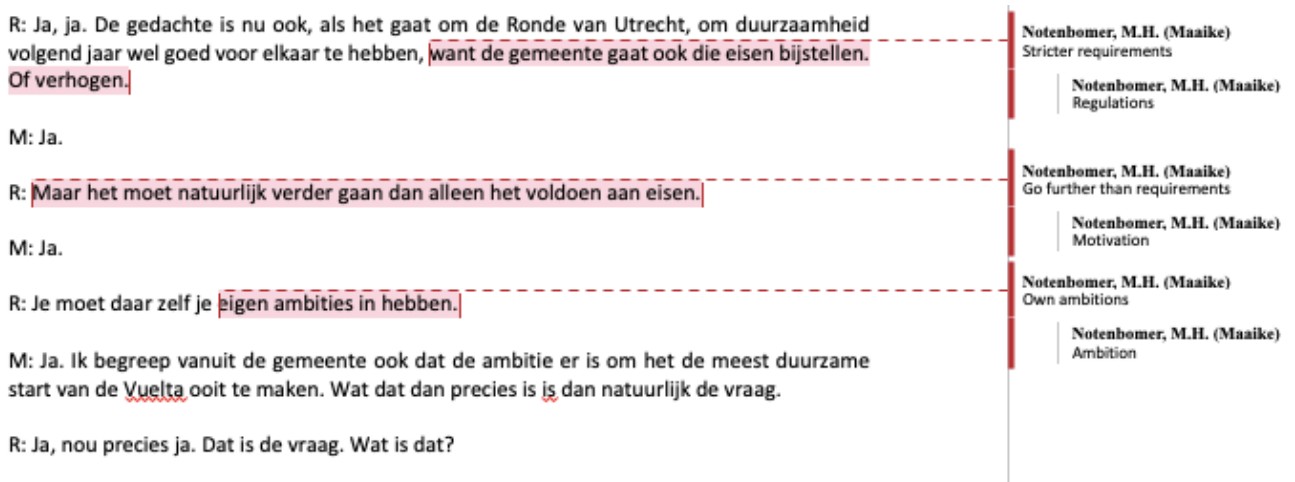


Figure 5: Coding example

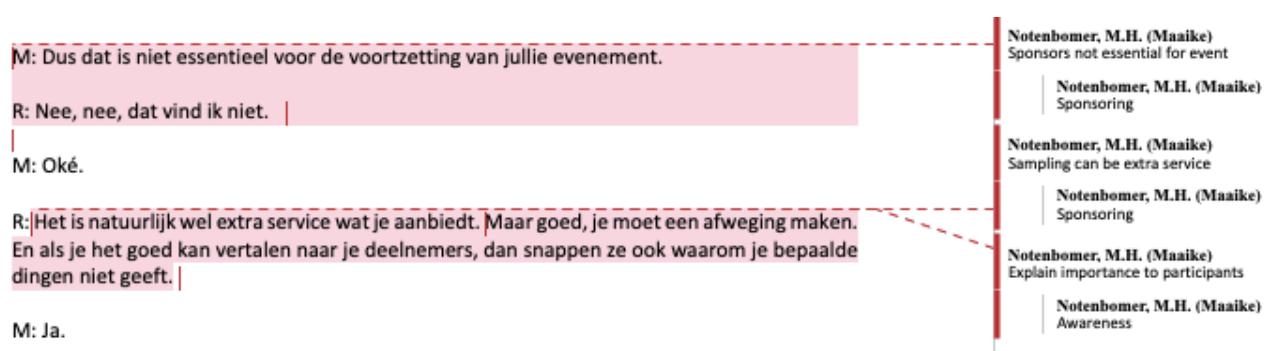


Figure 6: Coding example

After the second step of coding, the data could be translated into the results. This was done per sub-question. At first, the researcher used the theme-codes that were considered relevant to find the corresponding data to answer each question. For example, when wanting to know if organisations find environmental sustainability important, the theme-codes 'motivation', 'awareness' and 'priorities' can be used to find the fragments with relevant information. This information could then be used to find the answer to the relevant sub-question. However, as explained before, some codes from the first step of coding can fit under multiple overarching theme-codes. As a final step, the researcher thus looked at all the theme-codes to find relevant information that might have been missed initially. This information was then used to further answer the relevant sub-question. This way it was made sure that no information was looked over and left out.

It can be argued that this way of analysing the data prevents the discovery of new information. Since the topics in the topic list are based on the conceptual model, it is no surprise that the overarching theme-codes largely overlap with the conceptual model. However, the researcher left room to deviate from the topic list during the interview, creating room for unanticipated information to pop up. Unexpected information that popped up during the interviews and that did not correspond with the theme-codes, was labelled under the overarching theme-codes 'remaining' and 'extra's'. To give this information a place in this research, a special section is created in Chapter 4: Section 4.5. This way, the unexpected information still gets a place within this research. These and the rest of the results of this research are presented per sub-question in Chapter 4. The conclusions of the sub-questions lead up to the conclusion of the research in Chapter 5.

Organisation	Main event(s)	Date of the event in 2019	Edition 2019	Reoccurring	Number of participants	Kind of event
<b>Wielerplatform Utrecht</b>	Ronde van Utrecht	23th of June	1 <sup>st</sup>	Yearly (planned)	230	Cycling
<b>Central Events</b>	Classico Giro	26 <sup>th</sup> of May	9 <sup>th</sup>	Yearly	2000	Cycling
	Singel Swim	16 <sup>th</sup> of June	5 <sup>th</sup>	Yearly	153	Swimming
	Tour d'Utrecht	7 <sup>th</sup> of July	5 <sup>th</sup>	Yearly	2350	Cycling
	Merwederun	15 <sup>th</sup> of September	2 <sup>nd</sup>	Yearly	130 (2018)	Running
<b>Utrecht Skate Parade</b>	Skate parade	Every week	20 <sup>th</sup> season	Weekly (May till September)	200-600	Skating
<b>Culturele Zondagen</b>	Waterlinie Wandeltocht	19 <sup>th</sup> of October	1 <sup>st</sup>	Yearly (planned)	Not yet known	Hiking
	Urban Culture Run	8 <sup>th</sup> of September	4 <sup>th</sup>	Yearly	1500 (2018)	Running
<b>Bert Eskes</b>	Halve van de Haar	22 <sup>nd</sup> of April	5 <sup>th</sup>	Yearly	3500	Running
	Loop van Leidsche Rijn	26 <sup>th</sup> of May	7 <sup>th</sup>	Yearly	2500	Running
<b>SportworX</b>	DELA Eredivisie Beach	20 <sup>th</sup> - 26 <sup>th</sup> of May	4 <sup>th</sup>	Yearly	50 semi pro's + 1000 amateurs	Volleyball
	King of the Court 2018	6 <sup>th</sup> of September	X	Not planned	30 pro athletes	Volleyball
<b>Golazo</b>	Utrecht Marathon	12 <sup>th</sup> of May	38 <sup>th</sup>	Yearly	6000	Running
	Singelloop	6 <sup>th</sup> of October	69 <sup>th</sup>	Yearly	10.000 (2018)	Running
	Utrecht Night run	22 <sup>nd</sup> of November	2 <sup>nd</sup>	Yearly	3.750 (2018)	Running
	KLM Urban Trail Utrecht	16 <sup>th</sup> of June	3 <sup>rd</sup>	Yearly	2800	Running
<b>Stichting Utrecht Survival Run</b>	Utrecht Survival Run	28 <sup>th</sup> of September	6 <sup>th</sup>	Yearly	500 (anticipated)	Survival Run
<b>Varsity</b>	Varsity	7 <sup>th</sup> of April	136 <sup>th</sup>	Yearly	1000	Rowing
<b>Hellas Utrecht</b>	Triathlon Utrecht	7 <sup>th</sup> of July	15 <sup>th</sup>	Yearly	750	Cycling, Running, Swimming

Table 1: Respondents - sports events organisations

## 4. Results

The previous chapters discussed relevant scientific literature, the research strategy and the analysis of the data of this research. In this chapter, the results of the research will be presented. This is done per sub-question. The final section of this chapter holds the unexpected, additional information that came up during the interviews. The conclusions of the sub-questions lead to the general conclusion in Chapter 5, in which an answer is given to the main question:

*‘What is the current state of affairs surrounding environmental sustainability at outdoor sports events in Utrecht, and which factors influence the implementation of environmental sustainability initiatives at these events?’*

### 4.1 Sub-question 1

In this section, an answer is given to the first sub-question:

*‘To what extent do sports events organisers in Utrecht pay attention to environmental sustainability with the organisation of their events?’*

To be able to answer this question, all sports events organisations have been asked if they find environmental sustainability important and if they have been taking measures to improve environmental sustainability at their events. The answers to these questions determine in which stage of the wave model of McCullough and others (2016) the organisations currently are. This way, it becomes clear what the current state of affairs concerning environmental sustainability is at the events.

#### 4.1.1 Importance

First, the respondents were asked if they find environmental sustainability important. Initially, all the respondents say that they find environmental sustainability important. Many of the organisers say that nowadays, it is no longer accepted not to care about the environment. It is however not just external pressures like this that cause organisations to pay attention to environmental sustainability: almost all organisers mention that they have an intrinsic motivation to reduce the negative environmental impacts of their events. Most of them show signs of management commitment and management recognition of these impacts; factors that are often seen as the initial momentum of organisations implementing environmental CSR strategies (McCullough et al., 2016).

When asked who is responsible for environmental sustainability at the events, almost all the respondents answered ‘We are’ or ‘I am’. Almost no one pointed towards the municipality, and if they did, this was merely to point out that the municipality could invest in facilities. The organisations thus seem to lean towards the view that environmental sustainability is an issue that can be addressed by private organisations (Kallio and Nordberg, 2006). The respondent of the Utrecht Skate Parade for example says:

*‘I would not say that the responsibility lies with the municipality, but with the people themselves. People that organise the events just have to realize what their impact is, and I think that that is the start.’ (Respondent Skate Parade, 28/05/2019).*

Even though all organisers find the natural environment important, they are also honest in admitting that caring about environmental sustainability personally does not mean that their organisations focus on environmental sustainability as well. One respondent describes the situation as follows:

‘The socially desirable answer to the last question [Does your organisation find environmental sustainability important?] is yes, of course, but if you look at the extent in which it drives our decisions... Then I think the answer is no. But I also think that we naturally... The biggest part of what we do is claiming a piece of public road and claiming an event site. We own the road for a day and the event site for about two days. Afterwards, we must leave the site exactly as we found it. There is already a lot of sustainability in that. Because that literally means that we do not want to have an ecological footprint.’ (Respondent Triathlon, 12/06/2019).

The respondent indicates that even though environmental sustainability is not a major point of focus, it automatically results from how the event is organised. The respondent of the triathlon is not the only one who feels this way: many organisers mention that they, together with their participants, naturally care about the environment. The respondent of the Triathlon continues his argument as follows:

‘Within our organisation, there are various people who naturally have that [the will to pay attention to environmental sustainability]. That is because they are all triathletes, people who are surrounded by nature for half of the week. So, it is mostly that aspect, the making sure that we do not damage the natural environment, that is naturally inside of us.’ (Respondent Triathlon, 12/06/2019).

Even though the love for the natural environment is shared broadly amongst the event organisers, it appears that environmental sustainability almost always loses the battle for the most attention from other aspects of the events. These aspects are often considered important by the respondents for the continuation and the success of the events. Since there are no permit requirements for environmental sustainability, this aspect is often overshadowed by other aspects of the events for which there are requirements, like safety and public order. The respondent of the Wielerplatform says that:

‘... the subject of environmental sustainability is on the agenda, but if you look at safety and things like that, it is so busy and so difficult to organise a cycling race completely right. Really paying attention to environmental sustainability does not go much further than meeting the requirements of the municipality.’ (Respondent Wielerplatform, 27/05/2019).

Something along these lines is mentioned by the respondent of the Varsity, who says:

‘Yes, if an accident happens at the Varsity... Then we might lose the location. Or we will at least get into a lot of trouble with our permit. So, we think about that [safety] more, which is logical, or it seems to me.’ (Respondent Varsity, 07/06/2019).

Many organisers indicate that the permit requirements for safety and public order are very strict, causing it to be one of the most stressful and time-consuming parts of the organisation of their events. If all the requirements are met and there is still time and money left, that is

when organisers can pay attention to environmental sustainability. It seems as if the will to reduce negative environmental impacts is there, but this is not reflected in practice.

#### 4.1.2 Measures

Even though all organisations admit that environmental sustainability is no priority within the organisation of their events, most of them have been implementing small measures to improve the environmental sustainability of their events. Many of the measures that organisers implement fall into the category of the low-hanging fruit measures, like recycling and waste reduction efforts. The implementation of this kind of environmental sustainability initiatives is a characteristic of the first wave of the wave model (McCullough et al., 2016). Organisations have also implemented other measures.

The most frequently mentioned measure by the respondents is the reduction of plastic waste at the events. In following of the scientific literature (Barber et al., 2014; Elliot et al., 2016; (Villarrubia-Gómez et al., 2018) and the increased societal attention for plastic waste, organisations are trying to reduce plastic waste at their events. Maybe the most far-reaching measure is the installation of a water tap point by the organisation of the Varsity to reduce the usage of plastic water bottles. The installation of the tap point cost over 3000 euros, but with a view on environmental sustainability and practicality this was worth it, according to the respondent. The Varsity is not the only organisation who reduced their use of plastic: all organisations have switched to the use of cardboard cups instead of plastic ones. Initially, this seems like a good step in the right direction. However, during the interview with the sustainability expert of Green Events, it appeared that this might not be the case. According to the respondent, cardboard is not necessarily better than plastic and might even be worse. As an answer to the question if cardboard is better than plastic, she said:

‘It is quite a technical story. . . . If you look at PET, for example, the material of which recyclable bottles are made, then that is really the only kind of plastic that you can recycle back to PET again. If you do it right, that is, without printing colours on it. So you can just turn that into new raw material. In terms of circularity, that can be a solution. . . . If you can make sure that you collect all your cups the right way and that you can dispose of them in a single stream, then I think that that is a better solution than those paper [cardboard] cups, because those are just residual waste.’ (Respondent Green Events, 24/06/2019).

So, while many organisers feel like they have taken a good step in the direction of environmental sustainability, this might not be the case. If plastic cups are collected and processed properly, they can be recycled into new products made of plastic and might be better than cardboard. However, this would mean that all other stakeholders in the process, like the waste processing company, must cooperate, making it a difficult problem.

Another frequently mentioned measure is the reuse of materials. For example, the respondent of Central Events indicates that they have been investing in signage. They used to use disposable signs, but invested in new signs and now re-use them at various events. The respondent admitted that the measure was also implemented because it was cost-efficient, but the idea that it would be better for the environment was considered in the decision-making. The respondent of Golazo tells a similar story about the reuse of their drinking

barrels: after each event, the barrels are cleaned and stored away to be used again at a next event.

Apart from reducing the use of plastic and reusing materials, taking environmental sustainability into account with dealings with suppliers is another frequently mentioned measure. The respondents of Golazo, Culturele Zondagen and Bert Eskes mention the example of medals that the participants receive after their events. All three respondents have experienced suppliers delivering these medals, sometimes up to 3000 pieces, in individual plastic bags. After consultation with the suppliers, the medals are now no longer delivered in plastic bags. Interestingly, taking environmental sustainability into account in dealings with suppliers is described by McCullough and others (2016) as being a characteristic of the third and final wave in the model. So even though almost all sports events organisers seem to only just enter the first wave, they do show some behaviour that fits within the last stage of the wave model.

Stimulating participants to take sustainable ways of transport to the event is another measure that is mentioned by the respondents. Several respondents say they advise visitors not to come by car to the event and take the train or even the bike. Apart from transportation to and from the event, some of the respondents have started to pay more attention to how they promote their event. The main source of promotion for events used to be flyers and posters, but some event organisers have switched to social media. Most respondents have also thought about the impact of sponsoring to some degree, and as with the suppliers, they try to take environmental sustainability into account when dealing with their sponsors. The respondent of Central events says about this:

‘An example of what we did is that we stopped supplying goodie bags. . . . The goodie bags were not only a huge amount of work but the mess from the goodie bags also swerved all over the place after the event. You simply cannot do that anymore. That you see plastic bags with flyers and more nonsense everywhere, that no one wants. That is just not acceptable.’ (Respondent Central Events, 28/05/2019).

Instead of providing goodie bags, the participants now get an email with sponsor offers after the event has taken place. One interesting event is the Waterlinie Wandeltocht, which will be held for the first time this year. During the interview with the respondent of this event, the respondent pointed out that he finds that as an event organiser of a new event, you are nowadays obligated to try and maximise environmental sustainability at your event. He says:

‘Look, if you do things right from the start, then it becomes obvious. If right now you look for the cheapest option with parties like print shops, then it becomes much harder to extinguish it after that. While if you take it seriously immediately, it can endure for much longer.’ (Respondent Culturele Zondagen, 28/05/2019).

With this view in mind, various measures are being taken to improve environmental sustainability at the Waterlinie Wandeltocht, like banning plastic cups from the event by encouraging participants to bring their own reusable water bottles or cups.

### 4.1.3 Sub-conclusion sub-question 1

When it comes to the current state of affairs surrounding environmental sustainability at the outdoor sports events in Utrecht, it can be said that most respondents are aware of their impact on the environment and have started to implement measures. This indicates that they can be placed at the beginning of the wave model in stage one (McCullough et al., 2016). The general attitude of the event organisers seems to be that environmental sustainability is an issue that can be addressed by the organisations themselves, although some respondents point towards the municipality for investments in facilities and the introduction of regulations.

Even though everyone says to find environmental sustainability important, organisers are also honest in admitting that it is not a primary point of focus within the organisation of their events. Safety and budget are often mentioned as the two aspects that are given more attention by the respondents because these factors are the most important for the continuation of the events. There are also strict safety requirements in the permit application process, whereas there are no environmental sustainability requirements.

Still, all event organisers have taken measures to improve environmental sustainability, even though this is sometimes more from a practical or cost-saving point of view. In line with what Trendafilova and others (2013) say, the relative advantage gained by the measures, for example saving time and costs, is often considered as the most important reason to implement measures. Environmental sustainability is considered as a welcome side-effect.

If one looks at the kind of measures that the organisations have been implementing, it can be said that most of these measures fall in the category of low-hanging fruit measures. Various organisations have implemented waste reduction and recycle measures. Organisers have started to reuse materials, like water barrels, banners and signage. They have also started to advise their participants on sustainable ways of transport and try to consider environmental sustainability when dealing with suppliers and sponsors. Even though most organisations have just entered wave one of the model of McCullough and others (2016), communication with sponsors and suppliers is a characteristic of the third stage of the model.

In total, it can be said that all sports events organisers are aware of environmental issues and the negative environmental impacts of their events. Practice sometimes turns out to be different from theory and the ambitions of the event organisers, however, when budget, safety and practicality prove to be more important than environmental sustainability. However, all respondents mention that the attention of their organisations for environmental sustainability has increased throughout the years, and more far-reaching measures seem to be on their way.

### 4.2 Sub-question 2

In this section, an answer will be given to the second sub-question:

‘Which factors influence the environmental sustainability policy of sports events organisations?’

This question tries to reveal which factors influence the decision of sports events organisers to implement environmental sustainability initiatives. These factors are divided into two categories that are shown in the conceptual model of this research: drivers and constraints. To find out what organisations experience as drivers and what as constraints, the respondents were asked which internal and external factors influence the sustainability policy of their organisation and if they experience any obstacles when trying to implement environmental sustainability initiatives.

#### 4.2.1 Drivers

As already became clear in Section one, most sports events organisers find environmental sustainability important. According to Trendafilova and others (2013), intrinsic motivation is one of the most important drivers of environmentally sustainable behaviour. In Section one we saw that most organisers think environmental sustainability is important, so it is no surprise that the respondents mention intrinsic motivation as one of the most important factors that drives their decisions to implement measures. One of the respondents that expresses a strong motivation is the respondent of Central Events. He says:

‘With every step you take, try to consider how you can take that step as environmentally friendly as possible. I just find that very important. Our planet is already burdened enough. I would not like it if we made a big contribution to that.’ (Respondent Central Events, 28/05/2019).

Similar things are said by the respondent of Culturele Zondagen, who expresses that it is mainly their own motivation that moves them towards environmental sustainability. He also mentions increased awareness from society as a driver for them to implement environmental sustainability initiatives. Environmental sustainability has attracted more attention throughout the years and according to many respondents, the participants of their events have become more aware. This increased awareness also results in participants being extra critical:

‘We use that [a diesel generator] to generate electricity. Last year... I frequently walk around with our collection box, and I have been approached one time by a participant who said: if you guys would use a car that is driven by electricity, or if you would generate energy in another way, then I would give you ten euros instead of nothing.’ (Respondent Skate Parade, 28/05/2019).

So, as Trendafilova and others (2013) describe, expectations of society can also act as a driver to implement environmental sustainability initiatives. Intrinsic motivation and cultural expectations of society seem to reinforce one another and seem to move organisers towards the point where they automatically consider environmental sustainability in their decisions. The respondent of Golazo says about this:

‘... Right now, it [environmental sustainability] is a hot topic in the media. So much is being written about it; it is increasingly introduced into the world. So that does play a role a bit. But it is not crucial. We also find it important that we look at things like that [environmental sustainability]. So yeah, it has a relationship with the media because they blow it up more than a couple of years ago – do not put that in a negative context – but on the other hand, it

is also a value that we already look at; at what we can do. I think that strengthens each other. That it is not just external factors. I think that that would be no good. If it is only external factors that drive you, it becomes something obligated to which you have to comply. It is also an intrinsic thing. It is also the developments within society, that is an important thing. We have to go along. So, a piece of intrinsic motivation.’ (Respondent Golazo, 06/06/2019).

According to the respondent, the increased awareness of society also leads to increased attention for environmental sustainability in the media. However, apart from the respondent of Golazo, no respondents experience pressure from the media. In general, most of the respondents say that they have not experienced complaints about being unsustainable from the media or other external parties, like environmental activists. So, this driver, which is frequently mentioned in the scientific literature (Dahslrud, 2008; Kellinson & Hong, 2015, McCullough et al., 2016) and in the model of Trendafilova and others (2013), is not explicitly experienced by the event organisers in Utrecht.

A possible explanation for the pressure that the respondent of Golazo mentions, might be the fact that Golazo is the biggest organisation that participated in the research. They do not only organise the biggest events in Utrecht, but also in other cities, like the Rotterdam marathon in Rotterdam. According to Kellinson and Hong (2015), more pressure is placed on and experienced by organisations when many of the organisation’s actions take place in the public spotlight. It is thus not unlikely that the pressure experienced by Golazo is higher than the pressure experienced by organisations of smaller events like the triathlon and the Utrecht Survival Run, who receive less media attention.

Apart from pressure from the media, pressure from other sports events organisers is also not experienced by the event organisers in Utrecht. There are no respondents who say that they feel pressured to implement measures because other sports events organisers do so. According to Mohr and others (2011), organisations tend to model themselves after other organisations when there is uncertainty about the extent to which stakeholders expect organisations to implement environmental measures. In the case of this research, the focus of most organisers is on other things than environmental sustainability and the amount of measures implemented at the events is relatively small. There is thus no progressive organiser that the organisations can model after, or that the organisations feel pressured by.

Some respondents mention pressure from the municipality as a driver for the implementation of environmental sustainability initiatives. A few respondents say that not paying attention to environmental sustainability could give them a bad image, which in turn could be bad for, for example, their subsidies. The respondent of the Varsity says about this:

‘We try to do some things, even if they are little things, to show a good intention to certain parties. First, because at a certain moment in time, it just really is a no-go not to organise your event sustainably. Then you just lose sponsors, subsidy or whatever.’ (Respondent Varsity, 07/06/2019).

However, as with pressure from the media and pressure from other sports events organisations, most respondents indicate that they do not feel any pressure from the municipality to organise their events in an environmentally sustainable way. The main

explanation they give for this is that there are no requirements for events to pay attention to environmental sustainability. As of today, there are no requirements for sustainability in the permit applications of the municipality of Utrecht. An employee of the permit department of the municipality says about this:

‘Sustainability is no requirement in the permits. . . . In principle, an organiser can put an aggregate somewhere, but if we know that there is fixed power present there, we do say that we prefer them to use the fixed power. But it is not obligated. So theoretically you can place an aggregate next to a fixed electricity point if you want to.’ (Respondent municipality – permits, 21/06/2019).

So, the municipality can advise organisers to use present facilities and sustainable materials, but the organisers do not have to listen to this advice. Often, if advised sustainable materials and present facilities are more expensive, more difficult to implement or do not fit with the vision of the event organiser, the organiser chooses the cheaper and/or more practical alternative.

#### 4.2.2 Constraints

The most important constraint appears to be the exact opposite of the most important driver: a lack of intrinsic motivation. In line with the models of Trendafilova and others (2013) and McCullough and others (2016), it turns out that if there is no real commitment from the organisations, environmental sustainability initiatives will not be implemented. The organisations that attach the most importance to environmental sustainability, implement the most measures – and the most far-reaching measures.

Maybe the most frequently mentioned external constraint is budget. The taboo that Dodds and Walsh (2018) describe, that sustainable automatically means expensive, seems to be widespread among the sports events organisers. Almost every respondent says that it is expensive to take environmental sustainability into account within the organisation of their events, which is why they are not enthusiastic to focus on it. As mentioned before, sustainability always loses the battle for the most attention from other aspects. Budget is the aspect that is most frequently mentioned. The respondent of Culturele Zondagen says:

‘. . . if you need five thousand medals, and they cost two euros per piece without plastic packaging, and one euro per piece with plastic packaging... That saves you five thousand euros. Of course, that is not what you want, but with aspects like that it [budget] can suddenly become a thing.’ (Respondent Culturele Zondagen, 28/05/2019).

Furthermore, various organisers mention that sports events naturally have characteristics that make the implementation of environmental sustainability initiatives hard. For example, many organisers say that they work with a tight budget because sports events often rely on subsidies and the hard work of several dozens of volunteers. The respondent of Wielerplatform Utrecht says about this:

‘... Then you also have to look at the budgets of organisations like this. Those are very, very limited, and they [the organisers] all have to do it in their own free time. And then there still only is a limited budget.’ (Respondent Wielerplatform Utrecht, 27/05/2019).

The size of the organisation and the kind of event organised do not seem to matter: all organisations say that they work with a tight budget. In practice, the smaller events like the Utrecht Survival Run seem to struggle more with this aspect. For example, because of a mistake with paperwork, the Utrecht Survival Run does not get a subsidy from the University of Utrecht this year. According to the respondent, they now experience lots of pressure to secure the financing of their event and to be able to organise the run this year. For a big, international organisation like Golazo, missing out on subsidy may be inconvenient, but it does not necessarily threaten the continuation of their events.

One constraint that is not mentioned in the found literature but is mentioned by several respondents, is a lack of sustainable alternatives. Many respondents say that they would like to use sustainable alternatives for the products used at their events, but these alternatives are simply not available. The sustainability expert of Green Events recognises this. She says:

‘ I think the sports industry needs to do the low-hanging fruit first. That might take another while. But also, for example, with the sponges that runners get. You see those lying around everywhere, for example with the Rotterdam Marathon. . . . An alternative should be found for that, so that you still cool down as a runner, but do not need a plastic sponge like that every time. I have not heard about any solutions for that yet, but it seems to me like that would be realisable.’ (Respondent Green Events, 24/06/2019).

On top of this, sustainable alternatives for certain products that are available, cannot always be implemented at outdoor sports events. Characteristics that are inherent to sports events, like supplying participants with water and ways to cool down during races, seem to complicate this. Handing out water to participants is essential for most sports events. However, supplying this water by using available sustainable alternatives like the hard cup creates practical problems: if participants throw these hard cups away, the risk exists that other participants trip over them. You can also not ask participants to stop running or cycling for a minute during a race to drink their water. Like Trendafilova and others (2013) describe, the incompatibility of measures with outdoor sports events form a constraint for the implementation of environmental sustainability initiatives.

Two critical side notes must be made with this observation. First, the lack of sustainable alternatives is often mentioned together with the constraint of costs. Various respondents say that alternatives must be available against a reasonable price for them to consider them. If alternatives are available but they are considered too expensive, many organisations will not switch to these alternatives. Like Mallen and others (2010b) describe, respondents thus sometimes perceive a measure as incompatible (because the measure is too expensive) while this might not be the case. Second, a lack of suitable sustainable alternatives seems to be apparent, but the question also is how well people have looked for alternatives. Two employees of the municipality of Utrecht describe that the club of sports events organisers in Utrecht is not necessarily known for how innovative they are. The respondent of reoccurring events says about this:

‘ I must say, it is not very creative in Utrecht yet. I do see it in other cities. I saw an example of a marathon that offered balls filled with water at their drinking posts. These balls dissolved

automatically, so they did not use any cups at the event. But I must say that I have not seen very creative examples in Utrecht. I have seen the standard things: we pay attention to bikes and public transport and stimulate participants not to come by car. People are thinking about alternatives, but I think it could be some more.’ (Respondent Municipality of Utrecht – reoccurring events, 24/06/2019).

This argument is also supported by a few sports events organisers, who mention that they do not feel pressured by the municipality or other event organisers to try and find alternatives

Another frequently mentioned constraint is the lack of knowledge. Many respondents say that they would like to focus more on environmental sustainability, but they do not know how to do so. Information on what organisers can do to improve environmental sustainability at their events is difficult to find. What does not help is the fact that the best practices in the sports industry are relatively rare. In the found literature it appeared to be the case that the sports industry lags in environmental sustainability when compared to, for example, the music- and festival industry (Laing & Frost, 2010; Getz, 2010; Gabbatiss, 2018). According to the respondent of Green Events, this image is correct. She says that sports events are a group within the event industry that is still at the beginning of taking environmental sustainability into account with the organisation of their events.

There is a lack of best practices and information about sustainable alternatives. As McCullough and others (2016) describe, a lack of knowledge and skilled personnel causes organisations not to be able to implement measures. Especially the more complicated measures or the ones that require long-term thinking become impossible to implement. Apart from that, none of the organisations have elected a person or a team as ‘sustainability manager’. This way, there is no-one primarily tasked with finding new information and stimulating the implementation of measures. This is an important characteristic of the second wave in the wave model of McCullough and others (2016), which would mean that most sports events organisers in Utrecht have not reached this second stage.

The respondents also mention that they do not know how far other organisations are with the implementation of environmental sustainability initiatives. There is no place where organisations can share their information with other organisations, while respondents do express the need for such a place. According to McCullough and others (2016), the sharing of knowledge within the organisation and with partners is an important characteristic of the second wave of the wave model. Once again it thus seems as if no sports events organisers have reached the second stage of this model yet.

As Casper and others (2012) describe, the evaluation of environmental sustainability measures is key in the decision-making process to adopt innovations. Without the evaluations of measures and the sharing of the outcomes of these evaluations, organisations will continue to be ‘in the dark’ about how to improve environmental sustainability at their events. The municipality could play a leading role in facilitating a place to share knowledge, which will be further discussed in Section 4.4.3.

Apart from costs, a lack of alternatives, a lack of leading figures and a lack of knowledge, location is another constraint that often popped up during the interviews. Some event

organisers mention that the location of their events makes it impossible to stimulate the use of sustainable ways of transport by their participants. If events are held at locations that are difficult to reach by public transport, it is difficult to stop people arriving by car. The respondent of Central Events describes this as follows:

‘. . . If I organise a national event, I would not know how to prevent people from coming by car. The problem is that the event location, or in our case the start and finish location, cannot always be properly reached by public transport. Apart from that, you have to imagine, for example, if you come from Groningen, that you have to take your bike with you on the train. That causes a lot of extra costs, and in this case, you also have to go to Olympos by bus. That is not going to happen.’ (Respondent Central Events, 28/05/2019).

The respondent of the triathlon describes this problem as well: because people have to take their bikes to the event, they are a lot less flexible when it comes to transportation. This is another special characteristic of sports events that stands in the way when organisations want to improve environmental sustainability. The incompatibility of measures, as described by Mallen and others (2010b), turns out to be a factor that needs to be considered when looking at environmental sustainability at sports events.

Another constraint that did not come forward in the theoretical framework is lack of proper facilities. Some events are held at outer city locations, where there often is no fixed power or water tap point present. This lack of proper facilities is experienced as a constraint by most of the respondents. Some event organisers say that they want to implement more environmental sustainability initiatives, but that it is simply not possible because the proper facilities are not present. If there is no fixed power, they have no choice but using aggregates to provide them with the needed electricity. According to the respondent of Golazo, the lack of proper facilities stands in the way of improving environmental sustainability at the events:

‘The Utrecht Science Park... Not a lot is present there. . . . And the Wilhelminapark, there are also not a lot of facilities present. The finish of one of our big events is there. But you are forced to place some aggregates there. It would be great if there would be fixed power present. Especially because it is a park, which is very green. If you place an aggregate there, it kind of feels like: sorry, tree!’ (Respondent Golazo, 06/06/2019).

A final constraint that was never mentioned initially by the respondents, but that came up when follow-up questions were asked, is sponsoring. Initially, all organisers say that sampling is not necessary for the continuation of their events. However, when asked if sampling could be prohibited, many of them gave a different answer. Almost all respondents admit that budget plays a role in their decisions to accept ‘unsustainable’ forms of sponsoring, like sampling. One respondent mentions an example of a sponsor wanting to sample flyers at his event. If that sponsor offers 25 thousand euro to be able to sample at the event, the organiser would not prevent him from sampling. Sampling from sponsors turns out to be a factor that is often contradictory to the will of event organisers to be environmentally sustainable. Often it is allowed because of the tight budget that sports organisations work with. The respondent of the Utrecht Survival Run says about this:

'We are now looking at shirts, for example... Within the Survivalbond there is already a lot to do about those shirts. With every run, you get a new shirt. And people that run... For example, I participate in 12 runs each year. So yeah, that is kind of... You do not need 12 sport shirts, of course. . . . You could also create a shirt that you use at each run, all year round. But if you look at sponsoring... Look, those sponsors want their name on those shirts, and each run has a different sponsor. So that is the problem.' (Respondent Utrecht Survival Run, 06/06/2019).

If the survival of the event would be endangered by preventing deals like this, various respondents say, they would not prevent them. Apart from costs, service is also mentioned by some respondents as a reason to continue with unsustainable forms of sponsoring. The respondent of Golazo, for example, mentions that offering sports gels is also a kind of service offered towards the participants. Providing participants with those gels during the marathon is so intrinsic to running events, that participants expect this kind of service. However, as mentioned before, most of them have started to take environmental sustainability into account in dealing with their sponsors.

#### 4.2.3 Sub-conclusion sub-question 2

It turns out that various factors influence the environmental sustainability policy of the sports events organisers in Utrecht. The most important internal driver is intrinsic motivation. In line with the model of Trendafilova and others (2013), it indeed appears that organisations that are committed to reducing their environmental impacts have an intrinsic motivation to implement environmental sustainability initiatives. The biggest external driver that is experienced by the respondents is pressure from society. Many respondents indicate that not caring about your environmental impact is no longer accepted. The awareness amongst participants of events has increased, meaning that they have become more critical towards organisations. As described in the wave model of McCullough and others (2016), the emergence of awareness amongst organisers and participants, together with pressure from society, is often the first step for organisations to start implementing environmental sustainability initiatives.

Contrary to what the found literature suggests, pressure from the media, pressure from other organisations and pressure from the municipality are barely experienced by the sports events organisers in Utrecht. The largest part of the respondents say that they do not experience pressure by the municipality, because there are no requirements that force organisations to pay attention to environmental sustainability at their events. Whereas regulations are described as one of the most important drivers in the found literature (Trendafilova et al., 2013), this is thus not experienced by the respondents that participated in this research.

When it comes to constraints, a lack of intrinsic motivation turns out to be the most important one. A lack of motivation and awareness prevents organisations from entering the first stage of the wave model of McCullough and others (2016). The biggest external constraint is budget. Like Trendafilova and others (2013) predict, all respondents mention that their tight budgets prevent them from being able to implement measures. Furthermore, there is a lack of best practices and knowledge sharing between the organisations and a lack of appointed sustainability managers. This keeps organisations from entering the second stage of the wave model, in which awareness becomes knowledge.

There also is an apparent lack of sustainable alternatives. Alternatives are not present or are considered too costly or too difficult to implement. It turns out the incompatibility of environmental sustainability initiatives, as mentioned by Mallen and others (2010b), further increases the difficulty of finding suitable sustainable alternatives. Lastly, location and sponsoring are mentioned by the respondents as factors that complicate the implementation of environmental sustainability initiatives. If a sponsor offers money to be able to sample at an event, the tight budget of the organisations will cause them to allow this.

Overall, organisers experience more constraints than drivers when it comes to implementing environmental sustainability initiatives. These constraints cause organisations to not be able to enter the first stage of the wave model of McCullough and others (2016) or to not be able to progress through the model by implementing more far-reaching measures. Some of the experienced constraints are difficult to tackle, but for others, it seems as if a start could be made with tackling them now that the attention for environmental sustainability at sports events has increased. A stakeholder that could play a role in this process and that can act as both driver and constraint, is the municipality.

### 4.3 Sub-question 3

In this section, an answer will be given to the third sub-question:

‘To what extent does the municipality of Utrecht pay attention to environmental sustainability at outdoor sports events?’

Where the first two questions mainly look at the perspective of the sports events organisations, this question looks at the view of the municipality on environmental sustainability.

#### 4.3.1 Ambitions

With the increasing awareness surrounding environmental sustainability of society, more pressure is being put on governments to deal with environmental issues. According to Epstein (2018), governments themselves are also increasingly interested in environmental sustainability, as they have become more sensitive to their environmental impacts and the evaluation of the costs and benefits of their activities. If we look at the municipality of Utrecht it can be said that this is indeed the case. According to a study from Natuur&Milieu, published in February 2018, Utrecht is one of the highest-scoring cities in the Netherlands when it comes to environmental sustainability (Natuur&Milieu, 2018). The municipality of Utrecht wants to be climate-neutral in 2030. The municipality tries to achieve this by implementing various measures, like by providing various subsidies to inhabitants to make their homes energy-neutral (Natuur&Milieu, 2018).

When it comes to events, the municipality seems to seriously pay attention to environmental sustainability. The word ‘sustainability’ is used frequently on the website of the municipality and in official documents. When Utrecht applied for the organisation of the Songfestival, for example, the municipality expressed the ambition to organise the most sustainable Songfestival ever. They have said similar things about the start of the Vuelta, which will take

place in Utrecht in 2021. The respondent of the municipality of Utrecht – one-time events says about this:

‘I think that we as the municipality, but the event organisers as well, realise that the theme [of sustainability] is increasingly important. So, for many things it is the standard. At some locations in the city, for example, we work with fixed power and we think about what is being done with the materials that are transported to these locations. That also has to do with food and drinks. How do you make sure that it gets there the right way and that it is being separated in the right way, things like that. . . . It is also the municipality’s task to properly facilitate. You can say to people: do not place an aggregate there, but if there is no fixed power on that location, what else can you do. . . . We also tell organisers to buy locally as much as possible. That is sustainable because it saves various transport movements. . . . You can also see that more and more attention is being paid to sustainability in the application process for permits and subsidies. Think about sustainability and the measures you are going to take. So, I think that it [environmental sustainability] is pretty standard. . . . A lot of the things I mentioned, of what is happening right now, has become the standard. So, do not buy aggregates if this is not necessary, make sure you buy your products locally and that you think about if you have to make flyers and programs, or if you can do a lot of things like that digitally these days.’ (Respondent municipality of Utrecht – one-time events, 20/06/2019).

According to the respondent, attention is now paid to environmental sustainability within almost every aspect of the organisation of events. However, little is written about environmental sustainability in the coalition agreement. In this agreement, it is written that the municipality of Utrecht wants all events in Utrecht to be organised sustainably by 2022 (Gemeente Utrecht, 2018). However, that is the only thing that is written about it in the coalition agreement, leaving the question of how this is to be achieved unanswered.

It is unclear what exactly the municipality has in mind when it comes to environmental sustainability at events. It also turns out that the described extra attention for sustainability in the permit and subsidy application process by the respondent of the municipality – one-time events is not experienced at all by the sports events organisations. When the respondent was asked about the ambition to create the most sustainable Vuelta start ever, he said:

‘Yeah, well, that is something that we have said. We have also said that we are not going to say it very loudly, because, first of all, it is very difficult to prove. On the other hand, you could say: the most sustainable start of the Vuelta would be to just leave the Vuelta in Spain because one way or another a lot of people have to come this way. But we have said: now that it is here, and the event will take place, we are going to make sure that we organise it as sustainable as possible.’ (Respondent municipality of Utrecht – one-time events, 20/06/2019).

The respondent seems to slightly mitigate the ambition of the municipality, pointing out that ‘environmental sustainability’ is a very broad understanding. It looks as if there is a gap between dreams and practice. The respondent of reoccurring events mentioned something similar during his interview. He said:

'It [environmental sustainability] is a very topical theme, of course, that I would like to see at the events in Utrecht. I try to stimulate it with the organisers and try to bring it up during talks about subsidies. However, I should say honestly, that it is not our number one focus point, because there are other things – primal criteria – that are more important. More important criteria are, for example, stimulating sports and exercise, the participation of top athletes, the number of participants, the number of visitors and budget. Those are all aspects that you look at first. Secondly we also look at if attention is being paid to environmental sustainability, healthy sponsoring and healthy food. Those are sub-goals, and that is how they are treated, so we often talk about them after we talk about the main goals.' (Respondent municipality of Utrecht – reoccurring events, 24/06/2019).

This view on environmental sustainability is like that of the sports events organisers. People care about the environment and are motivated to act, but in practice, it turns out that there are many other aspects of the events that are considered more important. This is also reflected in the regulations concerning environmental sustainability at events. As mentioned before, there are no environmental sustainability requirements in the permit application process. According to the respondent of the permit department, the focus of the permits lies on safety, public order and the prevention of nuisance. There are a few conditions concerning the natural environment that must be met: the location where the event has taken place must be cleaned up afterwards, the trees on location need to be protected with special equipment and ramps must be put down to protect the grass from heavy trucks. However, as the respondent of the permit department mentions, this is not so much from the point of view of environmental sustainability, but more from the point of view of damage prevention.

The same goes for the subsidy application process. In 2017, the 'event fund' has been founded, with a budget of 300.000 euros for both 2018 and 2019 to stimulate events. To get a subsidy from this fund, certain requirements must be met. One of these criteria is sustainability. However, according to the respondent of the municipality – reoccurring events, all subsidies that are granted above 5.000 euros are not judged on sustainability. The criterion is mainly meant for organisations to think about sustainability, but nothing is compulsory. The criteria of sustainability can, in exceptional cases, alter the amount of subsidy that is given. King of the Court, organised by SportworX, received less subsidy because of the lack of sustainability measures taken at the event. So, even though the found literature (Trendafilova et al., 2017) points out that government regulations can seriously influence the extent and direction of environmental CSR activities by sports events organisations, there currently are almost no regulations in this area.

#### 4.3.2 Regulations

A lot of the sports events organisers mentioned that, if environmental sustainability is not obligated at their events, it is easily surpassed by aspects that are obligated. Thus, the question arises why there are no strict regulations when it comes to environmental sustainability. It turns out that the municipality of Utrecht wants to be a municipality that stimulates, but not restricts. All three respondents of the municipality say that events are an important contributor to the liveliness of the city of Utrecht. The municipality does not want to scare events away by creating too many and too strict regulations.

During the interviews, both respondents from the municipality and sports events organisers mentioned the policy of the municipality of Amsterdam as being something they would not like to see introduced in Utrecht. Since 2018, the municipality of Amsterdam uses a document called 'guidelines for sustainable events' in the permit application process. From 2020 onwards, big events are not granted a permit if they do not meet various far-reaching sustainability requirements described in this document, concerning water, power, waste, mobility and communication. For example, in 2020, the power that events use must consist entirely of green power. If there is no fixed power present, organisations have to use 'green batteries'. If events do not meet the requirements, they are not granted a permit and cannot take place. This method is feared by both respondents of the municipality, who fear that events will leave the city of Utrecht, and by sports events organisers, who think that the requirements in Amsterdam are too far-reaching. The respondent of the municipality – reoccurring event says about this:

'I think it goes too far, but that is my own opinion. I think that, if I look at it from the Utrecht-perspective, we place more emphasis on creating awareness and on stimulation. You also see that in other areas. Amsterdam can sometimes be very rigorous and in favour of guidelines. Organisations or inhabitants and other parties then must go along with that. I do not know if that would work that well in Utrecht. I think that, in the long term, it is of more use to generate support from below, so from the city. So that they also support certain choices and make those choices themselves, instead of that we impose them. So, I would not directly be in favour of it if it would be introduced in Utrecht. I would prefer to look together with organisers at how they can take steps in the upcoming years, instead of us telling them how it should be done.' (Respondent municipality of Utrecht – reoccurring events, 24/06/2019).

The respondent of the municipality – one-time events agrees with this and says that reverting to regulations and enforcement must be kind of a last resort. Even though the found literature suggests that regulations are one of the biggest drivers of environmental sustainability at events (Trendafilova et al., 2013; McCullough et al., 2016; Trendafilova et al., 2017), the municipality does not seem to want to create these regulations. The municipality would prefer for environmental sustainability to be paid attention to because of the intrinsic motivation of the sports events organisers. The respondent of the permit department says about this:

'We can demand all of sudden that everything has to be completely sustainable, but if the market cannot handle that, then we are demanding things that we really cannot demand. Then you know for certain that they [the sports events organisers] do not meet the demands you make. So are you not too strict then, so to say. I think it is better to work on a step-by-step plan and say: in 2022, everything must be sustainable. What is sustainability, and which steps are we going to take to make sure that we are a lot more sustainable in three years?' (Respondent municipality of Utrecht – permits, 21/06/2019).

The respondents of the municipality say that they would rather start a discussion with sports events organisations to see what can be done. The respondent of the permit department also mentions that if you impose rules, the organisations will only do what is required. This is in line with the findings of Taylor and others (2014) and Dodds and Walsh (2018) that the idea that sustainability efforts are cost-prohibitive and difficult to implement results in most

sustainability initiatives being the bare minimum of what municipalities require, instead of doing more. Besides that, Trendafilova and others (2017) say that if regulations ask for the implementation of difficult and costly measures, it is questionable whether organisations with a small budget can comply with these regulations.

However, when the respondents of the municipality were asked what they experience as constraints when it comes to stimulating environmental sustainability at the events, the lack of regulations was mentioned by all three of them. Even though the municipality does not want to form regulations, the respondents also admit that, as Trendafilova and others (2013) say, it is one of the best means to get organisations to implement environmental sustainability initiatives. The respondent of the municipality – reoccurring events says:

‘What we as the department of sport and subsidies encounter, is that we can only give positive incentives, but cannot impose anything. So, you are always dependent on if they [the sports events organisers] are going to do something with it. So that is why I am in favour of taking them along in this discussion so that they can see the use. Because we from Sport would not be able to impose it. It would be possible in the permits, but to refuse an event because of this... I think that is a far-reaching measure. An event that does good things in the area of stimulating sport with all kinds of societal goals, that would not get a permit because they, for example, use plastic cups and do not have the money to change that at this moment... Then I would rather sit down with that party and look at where we could work towards in the upcoming years, instead of that the event is no longer allowed to take place.’ (Respondent municipality of Utrecht – reoccurring events, 24/06/2019).

It thus seems as if there are conflicting interests at play. There is a clash between the need for regulations, and the will to solve problems surrounding environmental sustainability differently. Part of this problem is formed by the fact that environmental sustainability is a very broad understanding. The municipality seems to run into the problem described by Zifkos (2015), of there being variations in interpretation as to what environmental sustainability is and what it takes for something to be sustainable. It is also unclear how environmental sustainability can be measured and judged. When asked about who should determine this, the respondent of the municipality of Utrecht – permits said:

‘That is a good question. Yes... Good question. I think a piece of policy must be made for that. I think that is a task for the Department of Economic Affairs. But that is my interpretation. Then, there is policy, and then it becomes testable for the permit department. Then you can create demands. And implementing the policy... If there is something of which we can say: that is how we are going to do it, then we can make sure the organisations come along. Right now, it is very busy, but in general, we have the time to do things like that. (Respondent municipality of Utrecht – permits, 21/06/2019).

The uncertainty about who arranges and decides what when it comes to environmental sustainability is shared by the other respondents of the municipality. So, even if the municipality decides that it is time for regulations to be made, the question remains who is going to create and measure these regulations. Apart from regulations, there are other means that the municipality can use to stimulate environmental sustainability at outdoor sports events, which will be discussed in Section 4.4.

### 4.3.3 Sub-conclusion sub-question 3

In general, it can be said that, just like the sports events organisations, the municipality of Utrecht is aware of current environmental issues and wants to reduce negative environmental impacts. Like Epstein (2018) describes, the municipality of Utrecht has become more sensitive to increasing pressure from society to improve environmental sustainability. However, as with the sports events organisers, there are other aspects of events that are considered more important than environmental sustainability, like stimulating people to exercise and budget.

Although the municipality is very ambitious when it comes to environmental sustainability at events, it is unclear how the ambition of the municipality to organise all events sustainably by 2022 is to be realised. It turns out that there are a lot of practical objections. One of the most important ones is that the municipality is afraid to create too many or too strict regulations. Although it appears from the found literature and both the models of Trendafilova and others (2013) McCullough and others (2016) that government regulations are one of the biggest drivers of the implementation of environmental sustainability initiatives, the municipality of Utrecht is afraid that it will scare events away from the city. The municipality is more in favour of starting a discussion with event organisers to see how they can work together to solve problems surrounding environmental sustainability.

However, the respondents of the municipality also describe a lack of regulations as the most important constraint that prevents them from being able to improve environmental sustainability at the events. This is especially the case when it comes to the permit department: right now, the department cannot legally refuse events on any grounds except for order and safety.

What makes the matter even more complicated, is that it is not clear what environmental sustainability is and how it can be measured. Environmental sustainability is a broad understanding, and there seems to be no consensus within the municipality on what events can and should do to improve environmental sustainability. It is also unclear which person or which department is responsible for environmental sustainability at outdoor sports events. This means that it is unclear who should write the policy. So, the will is there, but so far, the municipality seems unable to pay much attention to environmental sustainability at outdoor sports events. However, it appears from this research that there are various ways in which the municipality can turn into a driver for event organisers to focus more on environmental sustainability. As it turns out in this section, they could do so by the introduction of regulations, but there are other options, which will be discussed in the next section.

### 4.4 Sub-question 4

In this section, an answer will be given to the final sub-question:

‘Which role can the municipality play in the process of implementing environmental sustainability initiatives at outdoor sports events?’

As turned out in the last section, regulations are one of the means the municipality can use to stimulate the implementation of environmental sustainability initiatives at events.

However, it also turned out that both the municipality and the event organisers fear the introduction of too many rules. There are other ways for the municipality to stimulate environmental sustainability at outdoor events, which will be discussed in this section. These measures are more focussed on stimulating organisations, instead of punishing them.

#### 4.4.1 Financial incentives

A first measure that the municipality can use to improve environmental sustainability that is more focussed on stimulation, is the introduction of a financial incentive. As Trendafilova and others (2017) describe, a financial incentive can be an important reason for an organisation to pay more attention to environmental sustainability. This is especially the case if the organisation is small and does not possess sufficient financial means itself, which seems to be the case for many of the (smaller) sports events organisations. One of the options that the municipality is considering is the creation of 'green permits'. It is not clear yet how this measure could be implemented, but there are various scenarios. The first one is that of lowering the costs of the permits for organisations that pay attention to environmental sustainability. The respondent of the municipality of Utrecht – reoccurring events says about this:

'I think giving a discount on the permits is a step in the right direction because the costs paid for permits are quite high in Utrecht. If you want to stimulate the organisations to pay attention to sustainability, which is one of the goals of the college of mayor and alderman, then I would say that that is a good development. I also think that organisers are more stimulated then, and are willing to do something about it [environmental sustainability]. Now, it is mentioned in the conversations we have with them and we ask them, in the subsidy application process, what they do about sustainability. But we do not judge them on it yet. Well, it would be the case if it would be arranged in the permits with a certain discount.' (Respondent municipality of Utrecht – reoccurring events, 24/06/2019).

Initially, all the respondents of the municipality say things along these lines, pointing out that the costs for permits for organisations are extremely high in Utrecht. This makes any financial incentive appealing to organisations. However, when the respondents were asked exactly how this measure should be implemented, it became clear that the implementation brings with it great practical issues. The respondent of the permit department, who would be directly involved with implementing this measure, eventually said that green permits might not be the solution. He said:

'It has to be very well defined what exactly this discount is and what you get it for. . . . You try to implement it as an incentive, but the interpretation matters. I use fixed power on location so I already have cheaper power, because it goes via the municipality, for example. You already have it, because it is just cheaper to use fixed power than to use an aggregate. So, there is already a bit of profit there. If you then also are going to reward people with a discount for the fact that he uses fixed power, well, I do not know. I think you just have to make it obligated: if there is fixed power present, then you have to use that initially. But only initially, because if that is not enough then you should be able to put an aggregate next to it. That is the other side of it. So, you need to define properly what the discount is and what you can get it for. I think that you need to adjust the criteria every two or three years because you need to keep challenging organisers to do better. I know it, I see it and I understand it. I do

see a way to stimulate the organisers because a financial incentive always works, but I also think that this is something that will be really hard to implement practically.’ (Respondent municipality of Utrecht – permits, 21/06/2019).

This is a crucial objection against the implementation of the green permits: determining when you get a discount, and what for. When does an organisation pay enough attention to environmental sustainability to receive a discount on their permit costs? A second objection against the measure is that the permit applications for events are already not cost-effective, costing the municipality more than they yield. If environmentally sustainable events pay less money for their permits, this ‘lost’ money must come from somewhere else. A last disadvantage of the measure is that it is unclear who is going to check on-site if the event organisers keep their promises. This takes manpower and thus brings with it extra costs and time. The implications of the measure are also pointed out by the sustainability expert of Green Events. She says:

‘You can set conditions, but then you also need to be able to check them. There must be someone within the municipality who can assess that. Someone who can say: this is correct or this is not correct. A hard cup system is very easy to check, for example, but how are you going to assess the use of power? Some things are much more difficult to assess. So if you set a condition, you have to make sure that you are well-organised at the back. . . . You must think very carefully about the entire system. So not just about the conditions you are going to set, but also about who is going to check them, if there is a system for that and who is going to keep that system up to date and where the responsibility lies to assess everything. You have to answer all those questions first before you can say: this is a good idea.’ (Respondent Green Events, 24/06/2019).

Another way of implementing the green permits, is by increasing the permit costs for all events except for those that implement environmental sustainability measures. The disadvantage of this is that the permit costs in Utrecht are already very high. Like Trendafilova and others (2017) describe, sports events are a category of events that are often organised by volunteers and make small to no returns. The question is if events like these can implement environmental sustainability initiatives without financial help, let alone if permits are made more expensive. Implementing the permits this way could increase the risk of events leaving the city because it is deemed too costly to organise events. This way of implementing the measure is feared by many of the sports events organisers. The respondent of the triathlon says about this:

‘. . . . Would it help to make the permit cheaper to stimulate environmental sustainability, yes, I think it would, but... Imagine if you say that something is not allowed, but it is not possible any other way at my location. If I then get punished because of that, and it thus becomes less favourable for me than it is in the current situation... The most natural tactic is to say: all permit costs increase by 250 euros and you get 500 euros’ discount if you do it right. In that case, you are punishing. I cannot make sure that a maximum of 1/3 of my visitors come by car, that is just impossible for me. For that, I am located too far away from the city centre. Then I cannot organise an event. I find that complicated. So, you do need to stimulate, but do not punish in the wrong way.’ (Respondent triathlon, 12/06/2019).

Many respondents express doubts about the measure, mentioning that it would be very difficult to determine how environmental sustainability is measured and that it is much more difficult to implement for some organisations than for others. Events that are located at locations where no fixed power is present, for example, are forced to make use of aggregates. If a requirement for a green permit than is that you are not allowed to use fixed power, it would be impossible for those organisations to achieve this, and thus unfair. So, the introduction of a green permit is generally considered a good idea, but there are a lot of practical questions that need to be answered first before the measure can be implemented.

Apart from green permits, the municipality could also use subsidies as a financial incentive. As mentioned before, the municipality can currently (in rare cases) reduce the subsidy of an event if the organisation fails to pay attention to environmental sustainability. This can be a reason for event organisers to start paying attention to environmental sustainability. However, as became clear during the interviews with the sports events organisers, no one experiences this as a constraint because it rarely happens. The municipality could change this by making environmental sustainability an obligated criterion in the subsidy application process. They could grant events more subsidy (than now is the case) if attention is paid to environmental sustainability, or they could reduce or completely take away the subsidy when events fail to implement certain environmental sustainability measures. However, the same practical objections of measurability arise with this measure as with the green permits.

In general, financial incentives are considered by the respondents as being a good idea. As appeared in the found literature (Trendafilova et al., 2017), financial incentives can be an important reason to pay more attention to environmental sustainability, especially if the organisation is small. The sports events organisers agree with this, mentioning that a financial incentive is always wanted by organisations like them that work with a tight budget and rely heavily on volunteers. During the presentation at the municipality on the 26<sup>th</sup> of September, the sports events organisers that were present seemed to express a preference for subsidies over green permits, because subsidies are not obligated and permits are. Once again, the fear for regulations thus plays a big part in the decision-making process about measures to improve environmental sustainability at outdoor sports events in Utrecht.

#### 4.4.2 Facilities

Taking on a facilitating role is a second thing that the municipality can do to stimulate environmental sustainability at events. As mentioned before, a lack of facilities is experienced by many of the sports events organisers. During the interviews, various respondents said that their will to focus more on environmental sustainability clashes with the lack of facilities present at their event locations. If there is no fixed power, for example, organisers see themselves forced to use aggregates. As became clear during the interviews, respondents see themselves instead of the municipality as the stakeholder that is most responsible for improving environmental sustainability at their events. Many respondents do think that the municipality could play a more facilitating role by providing proper facilities at event locations. The most frequently mentioned facilities that are lacking at locations are fixed power and water tap points. The lack of facilities is not just unsustainable but often also unpractical. The respondent of Golazo says about this:

'I think that they could improve a couple of things, so that the facilities are right. Also, a water facility in the Wilhelminapark, so that you can put a proper water tap point in the park. Right now, we have to cross the entire road, to get water from a location two streets away... Yes... That has an impact on the neighbourhood etcetera. If you say a location is an event location, then try to properly facilitate it. That is also easier for the organiser, because the better the facilities are, the easier it becomes for an organiser to do something and to take all the people into account.' (Respondent Golazo, 06/06/2019).

This view is shared by multiple respondents: if the municipality marks a location as an event location and wants to stimulate organisations to organise events there, these locations should be provided with proper facilities. An unexpected upside of this lack of facilities is that it causes organisations to think creatively about solutions. The organisation of the triathlon, for example, gets its water from a nearby dog training school. They also use power from a nearby factory, meaning that they do not have to use any aggregates. The Varsity uses water of a fat-burning factory across the road.

During the interviews with the respondents of the municipality, it became clear that the municipality has taken note of the need for better facilities, and that they are currently looking for solutions. In line with the trend that Trendafilova and others (2017) describe of local governments getting involved with making sure that new facilities meet specific environmental standards, the municipality wants to install new facilities to improve the environmental sustainability of events.

The municipality is working on a project in which they mark 39 locations spread throughout the city of Utrecht as event locations. At some of these newly constructed or renovated event locations, like the Jaarbeurs square, the municipality has already started to install facilities. This is a good start, but as it turns out, there is also room for improvement. During the interviews, it became clear that the facilities that have been realised at the Jaarbeurs square are insufficient to support various events that are being held at this location. King of the Court and Golazo both mention that apart from using the present fixed power, they still have to use aggregates. Missteps like these can be prevented if the municipality and organisations enter in a discussion together on what is needed where, beforehand.

A remark that must be made with the measure of installing facilities at event locations, is that it is impossible to install proper facilities everywhere. The realisation of fixed power and water tap points at all the event locations requires big investments, which the municipality cannot realise alone. The respondents of the municipality mention that organisations themselves have to be willing to invest as well, but that they are often not willing to do so because of the high costs associated with such investments. However, during the interviews, it appeared that this is not necessarily true. The respondent from the Varsity, for example, mentions that the Varsity would be willing to invest in fixed power because the Varsity is always organised at the same location. Location may thus play a role in the willingness of organisations to invest in proper facilities.

It thus seems as if there would be a base of support for some kind of a public-private partnership, that combines the two views towards the question of who is responsible for the positive and negative outcomes of outdoor sports events: the first one of environmental

problems being an issue that the government must manage (McCullough et al., 2016), and the contradicting view of environmental sustainability being an issue that can be addressed by private organisations, like sports events organisations (Kallio & Nordberg, 2006). The municipality of Utrecht and the sports events organisers could work together to create proper facilities at the event locations and thus improve the environmental sustainability of outdoor sports events. Also, some respondents mentioned that facilities could also be shared more by different organisations. For example, if two events take place in the same week, they could use the same fences. Bert Eskes says about this:

‘If you take a look now at everything that is driven there and that is driven back a week later... I have tried that two years ago here with an event organiser that organised an event right after me. . . . It is strange, of course, if you let the same fences driven from and to the location two times in the same week. . . . It is the same with the famous event garbage container. If I must empty that on Monday, and a new one needs to be delivered by Thursday for the next event, then you could think about how you could do that. Those are transport movements again too. . . . Apart from if you’re big or small, you can learn a lot from each other.’ (Respondent Bert Eskes, 04/06/2019).

So, better communication about the materials that are used at each event could reduce the number of transport movements needed. This way, the environmental sustainability of various events could be improved. This need for better communication is mentioned by almost all respondents. It is not just communication about sharing materials, but also about available sustainable alternatives and where to go to find solutions for unsustainable practices. In short, there is a need for the sharing of knowledge.

#### 4.4.3 Knowledge sharing

During the interviews with the sports events organisers, it became clear that they often have no idea what the current state of affairs surrounding environmental sustainability is at outdoor sports events in Utrecht. They know what they are working on, but do not discuss this with other organisations and in general, do not know whether other organisations pay attention to environmental sustainability. This while all of them mention that they would like to know what the current state of affairs is and what they can do to improve environmental sustainability. Many organisations have entered the first stage of the wave model, in which awareness is created and organisations start with the implementation of low-hanging fruit measures (McCullough et al., 2016). However, the lack of knowledge prevents these organisations from being able to enter the second stage of the model, in which awareness becomes knowledge and organisations can start to implement more complicated measures.

Almost all the organisers express a need for the sharing of knowledge and best practices. One of the most important characteristics of the second stage of the wave model, that of sharing of knowledge within and across organisational borders, thus seems to be completely absent in the outdoor sports events sector in Utrecht. During the interviews, it became clear that at the moment, a lot of basic information is not available or not easy to find, while this information could already make a difference. The respondent of Golazo says about this:

‘It also helps to clarify certain things: what is where, where is it located, and how much fixed power is present. That is also the good thing about the location profiles [a current project of

the municipality], that it becomes very clear. Also with digital maps. Then, new data will appear, and we need that data to create our maps. Via Google Maps... That is not up to date.' (Respondent Golazo, 06/06/2019).

So, various kinds of information could help to improve environmental sustainability at the events. The respondent of SportworX says about this:

' . . . I think it is a good idea if the municipality would play a role in that. That does not even have to be financially, but if they could just offer us some support to help... It is often also difficult to figure out where to start. You want to be more sustainable, but how?' (Respondent SportworX, 05/06/2019).

The interesting thing here is that the respondent mentions that help from the municipality does not necessarily have to be financial help: help with the sharing of knowledge might be just as or even more beneficial. The respondent of SportworX is not the only one who thinks this way. Several respondents mention that the municipality could already be of a lot of help if they would share the knowledge they possess with the organisations. However, there is a reason that knowledge that the municipality possesses is not always shared with organisations. The respondent of the permit department says about this:

' . . . you have to prevent that, as a municipality, you are competing with the suppliers of events. . . . It is not the case that we [as a municipality] very actively say... No, no. We consciously do not do so. Rarely, if we know that you can only find a certain thing at a certain place, then it is sometimes easier to steer a bit. It sometimes happens that I know that a big event is being held and that I know who the supplier is. That is often more per coincidence because they have said it once or because I know the material and I know where it comes from. Then it sometimes happens that I say to a smaller event that is close by: this event also has that supplier, so you can call them because maybe it is then possible to combine some transportation and keep it cheaper. I say honestly, I do that sometimes. But not officially, so to say. We must prevent that we, as the municipality, are going to determine who will be the supplier. It is even policy not to do that. (Respondent municipality of Utrecht – permits, 21/06/2019).

So, there is tension between the knowledge the municipality can provide and what they feel like they can provide. The municipality does not want to intervene in the market too much. This way of purposely not sharing information might be good in the sense that it leaves everything to the market, but as Trendafilova and others (2017) describe, it is questionable whether big complicated issues like environmental sustainability benefit from this neoliberal way of conducting policy. If the sharing of information on sustainable suppliers, sustainable materials and possible cooperation between events is stimulated, environmental sustainability at all events could be improved.

If it is determined within the municipality if and which knowledge can be shared, the next question is how this knowledge can be distributed among event organisers. One way in which knowledge could be shared is by making use of the 'platform sports events'. According to the respondent of the municipality – reoccurring events, this platform is:

'... focussed on the sharing of knowledge and the stimulation and sharing of facilities and knowledge to boost the level of events in Utrecht. On the one hand, via the municipality, and on the other hand also among organisations. We also want to facilitate that they share knowledge and facilities themselves.' (Respondent Municipality of Utrecht – reoccurring events, 24/06/2019).

It seems as if this platform, that consists of the biggest sports events organisations in Utrecht, is a place made for the sharing of knowledge, and could also function as one for the subject of environmental sustainability. The respondent of the triathlon even mentions this in his interview, claiming that:

'... we have the platform sports events, of course. It would help to bring those several organisations together and to see what works and what does not' (Respondent triathlon, 12/06/2019).

Apart from the platform, there are other ways to stimulate knowledge sharing. The municipality works together with Green Events. Green Events is a company that focusses on environmental sustainability at events all kinds of events. At the moment, Green Events works together with various events in Utrecht. The organisations behind these events have access to the knowledge and best practices of Green Events. However, none of the organisations that work with Green Events are sports events organisations, meaning that sports events organisers do not have access to this information. When the respondent of Green Events was asked what she thinks about knowledge sharing with the organisations, she said:

'Yes. That is the aspect where the strength lies. Four years ago, we started the Green Deal project with ten sustainability leaders. Back then, the deal was: if you want to belong to this group, you have to share knowledge, but also be willing to for example test a new project and share the knowledge about that project. It can be that something fails, but that is okay. But it is nice then, that ten other people also know that it is not a good method, instead of everyone having to reinvent the wheel.' (Respondent Green Events, 24/06/2019).

The goal of Green Events is to support and to develop knowledge within organisations. This way, when Green Events leaves, the knowledge is still available within the organisation and sustainability efforts undertaken can be maintained or expanded. This strategy prevents the situation that Trendafilova and others (2013) and McCullough and others (2016) describe, in which an organisation regresses through the wave model when pressures cease to exist, for example when knowledgeable personnel leaves.

The respondent of Green Events also mentions that organisations must be committed to making changes. Since many of the sports events organisers say that sacrificing budget or time to implement environmental sustainability initiatives at their events is currently too much to ask for, it is questionable whether this is the case. Several respondents are also honest in admitting that if the knowledge is not provided to them, they will not do much more than use Google to find information or implement the minimum amount of measures that are required by the municipality. This is mainly because the time, in their eyes, is then better spend on other (obligated) aspects of the event.

If the knowledge is provided, however, for example via cooperation with Green Events or through the platform, respondents seem willing to take a more serious look at environmental sustainability. So, many respondents indicate that knowledge sharing is wanted and needed and it seems worth it to give it a try. How this sharing of knowledge should take place should be discussed thoroughly with the organisations, Green Events and the municipality. It appears that the platform could be a good place to start: after the preliminary results of this research were shared with the municipality, the municipality decided to talk about sustainability in the September edition of the platform sports events. During this meeting, the results of this research were presented and the respondent of Green Events held a presentation about sustainability at sports events. The respondent of Green Events also pitched the idea of starting with a group of sports events organisers that could try out new environmental sustainability initiatives and then share this information with all the other event organisers. Although the idea needs some adjustments, a first step in the direction of improving environmental sustainability at outdoor sports events has been taken.

#### 4.4.4 Sub-conclusion sub-question 4

As it appeared in the interviews, the municipality of Utrecht wants to focus on stimulating organisations instead of punishing them by introducing regulations. From the interviews came forward three ways in which the municipality could stimulate organisations to focus more on environmental sustainability. Firstly, the municipality could stimulate organisations by introducing a financial incentive. According to Trendafilova and others (2017), introducing a financial incentive works well for organisation that work with a tight budget, in this case as the sports events organisers. This incentive can be introduced in two ways. The first option is to use subsidies. The municipality could grant an extra subsidy to organisations that focus on environmental sustainability, or they could stop granting a subsidy to organisations that do not pay attention to environmental sustainability. In both cases, environmental sustainability should become an obligated criterion in the subsidy application process.

Secondly, the municipality could introduce a system of ‘green permits’. There are various ways to do so. First, they could increase the permit fees for all events except those that pay attention to environmental sustainability. The disadvantage of this method is that the fees are already very high in Utrecht. This could potentially scare event organisers away, especially the smaller ones. Secondly, the municipality could keep the fees the same and give a discount to the event organisers that pay attention to environmental sustainability. This method is preferred by the sports events organisers, but the disadvantage of this method is that the permits are already not cost-effective and would thus cost the municipality a lot of money.

Against both measures, the ‘green permits’ and the subsidies, there are some practical objections. It is not yet determined within the municipality how environmental efforts should be measured. It is also unknown who should write the policy concerning environmental sustainability at sports events, and who will judge how the measures are implemented in practice.

Apart from introducing a financial incentive, the municipality could take on a facilitating role. They could provide fixed power and water tap points at several event locations. In this scenario, sports events organisers might need to contribute to the investment in these facilities. The facilities should also be sufficient, meaning that the municipality would first

need to investigate how much power and water is needed everywhere. The municipality and the sports events organisations should discuss this beforehand, to prevent missteps like at the Jaarbeurs square.

Lastly, the municipality could stimulate and facilitate the sharing of knowledge. The municipality could provide information to the sports events organisers about which sustainable materials to use at their events and which suppliers to contact. A difficulty with this is that the municipality does not want to intervene in the market too much, because this creates unfair competition. The information could, however, be of great value in the process of implementing environmental sustainability initiatives at the events. Like Naraine and others (2016) and Trendafilova and others (2013) describe, complicated issues like environmental sustainability are likely not be solved by the market alone. The municipality should thus try and find a balance between not disturbing the market too much and sharing valuable and necessary information with the event organisers. The sharing of this knowledge could be facilitated by making use of the platform sports events, or by stimulating the cooperation between Green Events and sports events organisers.

#### 4.5 Unexpected information

This section will discuss any unexpected results that cannot be placed specifically under the sub-questions of this research. This unexpected information consists of things that were not anticipated beforehand, but that were mentioned by multiple respondents.

##### 4.5.1 Event differentiation

An interesting result is that many respondents share the view that the environmental footprint of outdoor sports events is not that big. Respondents often mention things like ‘our event is only small’, ‘we are only there for one day’ and ‘we clean up after ourselves’. For example, the respondent of Golazo says:

‘It also differs per type of event. We do not need that much. If you look at dance events, or something with food trucks that all need to be connected [to the power], well...’ (Respondent Golazo, 06/06/2019).

Many respondents point towards dance events and food truck festivals as being the major polluters. The general attitude towards these festivals is summarized by the respondent of Culturele Zondagen as followed:

‘I think that smaller events per definitions have less impact [than bigger events]. A big event like Central Park or Soenda [both dance events] of course have a huge, different impact than a sports event.’ (Respondent Culturele Zondagen, 28/05/2019).

According to some respondents, there is also a difference between the different types of sports events. A big event like the Utrecht marathon might have a much bigger impact than a small-scale event like the Skate Parade. Furthermore, an event like the Varsity, that has more of a festival vibe with lots of food and beers being sold, might need to implement very different measures to reduce its environmental impact than an event like the Utrecht Survival Run. This will further be elaborated on in the recommendations for future research.

Some respondents of smaller events also point towards the bigger budgets of the larger organisations, mentioning that these events have more means to focus on environmental sustainability. This seems to be in line with what Trendafilova and others (2017) describe, of events with small budgets that rely heavily on volunteers not being able to focus as much on improving environmental sustainability. As described earlier, big organisations like Golazo might have more freedom of movement to decide on how they use their resources. This will also further be discussed in the recommendations for future research.

#### 4.5.2 Social role of sports

The social role that sports events can have is also something that frequently popped up during the interviews. Various respondents mentioned that sports hold an important place within society. Sports events are not only 'just for fun', but also promote human health and social interaction. This is in line with what is mentioned by Pernecky and Lück (2013), who say that sports can socially and culturally connect. As an example, the respondent of the Wielierplatform mentions that he organises bike clinics for employees of the Maliebaan: the place where the 'Ronde van Utrecht' starts. He says this improves the health of the employees, which in turn leads to a higher performance level of those employees. According to him, this is a different form of sustainability, but one that is important none the less.

This different form of sustainability came forward during interviews with other sports events organisers as well. King of the Court, for example, always leaves the sand of their beach volleyball tournaments laying on the location for several days after the event has taken place. This way, they want to allow schools and companies to play on a professional field. In a way, this contributes to the recycling of materials, although the transportation of the sand to the event locations is far from sustainable. This reuse of materials is mentioned by more respondents, like the Varsity. The Varsity collects the wine bottles they use at their event and brings them to a social workshop where people that are reintegrating in society make cups out of the wine bottles. These cups are then supplied to various restaurants in Utrecht.

Some sports events also do something for charity. The organisation of the triathlon gets its fixed power from a neighbouring company. The wife of the director of this company works at the local toy bank. In return for the fixed power, the organisation of the triathlon asks their participants to bring toys to the event. The respondent of Central Events mentions that they bring leftover food from their events to the foodbank to reduce their waste and to give something back to society. Golazo tries to reduce their waste as well, by collecting clothes that stay behind after the marathon and give them to charity. Central Events also always connects a good case to their events. With the Classico Giro, for example, they collected money for the Wilhelmina child hospital. Culture Zondagen does something similar with the organisation of the Waterlinie Wandeltocht, with which they support the diabetes fund.

So, sports events organisers in Utrecht have found various ways to give back to society. Although these measures are not always seen as measures that improve sustainability, it turns out that they can contribute not only to the improvement of environmental sustainability, but also to the improvement of social sustainability. As appears from the results of this research the sports events industry might lag in environmental sustainability when compared to other industries, but when it comes to social sustainability, they might be a step or two ahead of everyone.

## 5. Conclusion

The goal of this research was to answer the call from the scientific community for more research into the environmental impact of sports events. By interviewing ten sports events organisers, various municipal employees and a sustainability expert this research has aimed to find out what the current state of affairs is surrounding environmental sustainability at outdoor sports events in Utrecht and which factors hinder or promote the implementation of environmental sustainability measures at these events. This has been done by taking the wave model of McCullough and others (2016) and the model of drivers and constraints of Trendafilova and others (2013) and combining them into the conceptual model of this research. The main question of this research was:

*'What is the current state of affairs surrounding environmental sustainability at outdoor sports events in Utrecht and which factors influence the implementation of environmental sustainability initiatives at these events?'*

In summary, it can be said that the will from both the municipality of Utrecht and the sports events organisations to improve environmental sustainability at the events is there, but there is no way to achieve this yet. If we use the model of McCullough and others (2016) to determine how advanced the organisations are in the process of greening their events, it can be said that the organisations are only at the beginning of the process in stage one. They are aware of the environmental impacts of their events and are working, some harder than others, to reduce these impacts. Various low-hanging fruit measures are being implemented, like raising awareness amongst participants, reusing materials and the implementation of measures to reduce waste. Some organisations even show characteristics of the third stage of the model, by taking environmental sustainability into account in dealings with their suppliers and sponsors.

In line with the models of Trendafilova and others (2013) and McCullough and others (2016), the most important driver for organisations to pay attention to environmental sustainability turns out to be intrinsic motivation. The most important external drivers are increased awareness amongst participants and the relative advantage gained by the implementation of the measures. Whereas the models of McCullough and others (2016) and Trendafilova and others (2013) suggest that government regulations and pressure from the municipality are the most important drivers for environmentally sustainable behaviour of the organisations, these drivers are not experienced by the sports events organisers in Utrecht. The main explanation for this is that there are strict safety and public order requirements in the permit application process, whereas there are no environmental sustainability requirements. Therefore, environmental sustainability is given less attention than other aspects that do need to meet strict requirements or that are crucial for the continuation of the events, like safety, practicality and budget.

In line with what Dodds & Walsh (2018) say and with what the model of Trendafilova and others (2013) suggests, budget is the aspect that is most experienced as a constraint by the respondents. According to the respondents, their budget is too tight to be able to implement environmental sustainability measures. Apart from budget, the most experienced constraints by the respondents turn out to be constraints that are not mentioned in the model of

Trendafilova and others (2013): a lack of knowledge, the location of the event and a lack of sustainable alternatives that are suitable for use at sports events. It often is the case that organisations want to make their events more environmentally sustainable, but they do not know how to do this. They do not know where to find the right materials or the right suppliers.

This is where the municipality could step in. Currently, the municipality of Utrecht does not hold an important role in the process of improving environmental sustainability at outdoor sports events. This is mainly because there are little to no government regulations that focus on environmental sustainability. However, the municipality could turn into an important driver for the implementation of environmental sustainability initiatives at the events. As it turns out from the interviews, the municipality could do so by stimulating organisations to pay attention to environmental sustainability, or by punishing them if they fail to do so. Four recommendations can be made for future policy.

One way for the municipality to improve environmental sustainability at the events, is by stimulating the sharing of knowledge. The municipality could provide information about sustainable suppliers and materials and could stimulate organisations to share knowledge and best practices with each other, for example at the platform sports events or in cooperation with Green Events. The municipality could also tempt organisations to pay attention to environmental sustainability by introducing a financial incentive in the form of a green permit or a subsidy. In line with what Trendafilova and others (2017) suggest, this could be a strong driver for the sports events organisers since they work with a tight budget. Lastly, the municipality could take on a more facilitating role and provide fixed power and water tap points at the event locations.

Although the introduction of government regulations is the most important driver of environmentally sustainable behaviour, according to the found literature and the model of Trendafilova and others (2013), both the municipality and the sports events organisers fear the introduction of strict regulations. However, both the sports events organisers and the municipal employees also admit that the current lack of obligated requirements causes environmental sustainability to be surpassed in importance by aspects like budget and safety. So, it seems as if some regulations are needed to force both organisations and the municipality to pay more attention to environmental sustainability. The municipality could make environmental sustainability a strict requirement in the permit application process, or in the subsidy application process.

Looking at the shared fear of the municipality and sports events organisers for too many regulations, the best advice would be to create obligated environmental sustainability requirements in the subsidy application process. This way, events can still get a permit when they fail to pay attention to environmental sustainability, but not paying attention to environmental sustainability will cause the organisations to lose subsidy that they much need. To solve complex issues like environmental sustainability, sacrifices will always have to be made, and it seems as if this measure is only a small sacrifice for such a goal to be achieved. So, overall it can be said that if everyone remains committed to solving environmental issues and the municipality starts to act as a driver in the process of greening of the events, environmental sustainability at outdoor sports events in Utrecht lies just around the corner.

### Reflection

In the found literature, the image was created that the sports industry lags in implementing environmental sustainability initiatives when compared to other industries, like the music- and festival industry (Taylor et al., 2014; Gabbatiss, 2018). From this study, it appears that this is indeed correct: sports events organisations in Utrecht have only just become aware of the environmental impact of their events. However, it also appears that all organisations have started to implement various environmental sustainability initiatives. This exploratory research has given a first insight into how the sports industry currently deals with its environmental impact and has opened the door to more research. Various recommendations for further research can be made. Also, some critical side notes need to be placed with this study.

When one looks at how this study is conducted, some methodological remarks must be made. Firstly, this research is written in English, while the interviews were held in Dutch. The quotes that are used in this research were translated from Dutch to English, meaning that some translation errors might have occurred. Second, the researcher chose to analyse the data by comparing the answers of the respondents to the created conceptual model. This means that she purposely looked for the concepts displayed in the conceptual model, which can have caused important information to be left out. However, the researcher came up with various measures to prevent this, like by not using the concepts of the conceptual model as codes. Instead, in the first step of coding the codes that are created are literal answer fragments of the respondents. This way, the codes of the first step of coding, shown in Appendix II, remain close to the data and are less of an interpretation of the researcher (Saldana, 2009). The overarching theme-codes were then created by comparing the codes of this first step to each other. Only then did the researcher compare these overarching theme-codes to the conceptual model.

As an extra measure, a section was added to the results chapter. In Section 4.5, a place is given to unexpected information that fitted under theme-codes that did not fit with the conceptual model of this research. This way, the researcher tried to remain as open-minded as possible and to not just look for confirmation of the found literature.

When it comes to the selection of the cases, this research has looked at some events that are yet to take place, like the Waterlinie Wandeltocht and the Vuelta. What the respondents say about these events now might turn out to be different from practice. The environmental sustainability of these events can only really be judged after the events have taken place, meaning that this might have influenced the results of this research. However, since it only concerns two events, this influence is probably only minimal.

### Recommendations for further research

Various recommendations for future research can be made. First, this research has only looked at sports events in Utrecht. It might be the case that results are different in other cities. As already pointed out by the employees of the municipality, the events in Utrecht are not very innovative when it comes to environmental sustainability. The Zevenheuvelenloop in Nijmegen, for example, is a running event that uses water balls that solve automatically to offer participants a drink. Measures like that are absent from the sports event scene in Utrecht, meaning that the results of the research might be different if it was conducted in

different cities throughout the Netherlands or even internationally. It could be the case that the sports events industry is paying more attention to environmental sustainability than the results of this research suggest. However, Green Events is an organisation that operates throughout the Netherlands and according to this respondent, the sports industry is not very active yet when it comes to environmental sustainability. Still, it is recommended that further research is conducted in other cities to get a more complete image of the current state of affairs surrounding environmental sustainability at sports events.

Second, this research has only looked at sports events that have been organised or will be organised this year. It has not looked at how these or other events have been held in previous years. It is thus unclear how the amount of attention paid to environmental sustainability has developed. However, many respondents have mentioned that they focus a lot more on environmental sustainability than for example ten years or even a year ago. It can thus carefully be assumed that the amount of attention paid to environmental sustainability has increased throughout the years. To get an insight into the development of environmental sustainability measures at sports events, it is recommended to conduct more research into this subject in a few years. With the current scientific and societal attention for environmental sustainability, the pace at which measures are developed and the pace at which pressure is put on organisations to improve their environmental sustainability increases rapidly. This research might give substantially different results in five, two or even one years from now.

Also, as mentioned in Section 4.5, more research should be conducted into the different sizes of sports events. As it turned out with pressure from the media, drivers and constraints can be experienced differently by organisations of relatively small and relatively big events. The measures that these organisations implement also differ. A large-scale sporting event like the Singelloop has a start- and finish point where much pressure is being put on the natural environment. This is different with an event like the Skate Parade, that does not have a start- and finish location with extra facilities. This then, again, differs from an event like the Varistry, that almost shares more characteristics with a festival than with an event like the Skate Parade or a wheeler competition. Even though there are some measures to improve environmental sustainability that all these events could implement, there are also a lot of measures that are specific for the kind and size of event. More research should thus be conducted into which measures can be implemented by which events to improve their environmental sustainability.

In line with this, more research surrounding the measures that are being taken at sports events is needed. It is clear which measures organisations in Utrecht are implementing, but the effects of these measures are relatively unclear. As already shown with the replacement of plastic by cardboard cups, some measures that are currently implemented do not have the desired effect. To really be able to improve environmental sustainability at outdoor sports events, it should be investigated how certain measures should be implemented and what their effects are.

To conclude, it is needed to create more transparency throughout the entire chain of the organisation of sports events. Where do materials come from, how sustainable are they really, and what happens with the garbage that is collected separately when it is picked up by the garbage disposal service. If an organisation implements measures to collect garbage

separately, this is of no use if the garbage disposal company that picks up the garbage processes the waste as a single stream. Environmental sustainability is a complex problem that cannot be fixed by sports organisers alone. As the respondent of Green Events mentioned, changes must be made in the entire chain. More research should thus be conducted to create more transparency and make sure that environmental efforts are not made needlessly.

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## Appendices

### Appendix I: Topic list

#### **Subject: General information about the respondent**

1. What is your role with consideration to sports events in Utrecht?
2. Can you say something more about the event(s) that you organise?
3. When are you satisfied after the event has taken place?

#### **Subject: General sustainability strategy of the organisation**

4. To what extent does your organisation pay attention to sustainability?
  - Do you find sustainability important?
  - (Focus on ecological sustainability)
5. Has your organisation undertaken action to increase sustainability?
  - Has this changed throughout the years?
6. Which initiatives make you most proud?

#### **Subject: Plastic**

7. A material that is often used at sport events is plastic, for example for sampling and drinking cups. Do you use plastic at your events?
  - Have you ever looked at alternatives?
8. To what extent is sampling essential for the continuation of your event(s)?
9. In 2021, European regulations will prohibit the use of disposable plastic such as cutlery and straws. Are you familiar with this?
  - Does this influence your event?

#### **Subject: Drivers and constraints**

10. To what extent is the sustainability policy of your organisation influenced by internal and external factors?
  - costs/subsidy
  - pressure from society/media/government/other organisations
  - policy
  - motivation
  - competition with other event organisations
11. To what extent do you experience obstacles when you try to make your event more sustainable?
  - costs/subsidy
  - pressure from society/media/government/other organisations
  - policy
  - motivation
  - competition with other event organisations

#### **Subject: The role of the municipality**

12. Where do you think the responsibility lies for making events (more) sustainable?
  - Why?
13. To what extent do you think the municipality should do more to encourage sustainability at outdoor sports events?
14. In your opinion, how can the municipality stimulate sustainability? - 'Green permits'

## Appendix 2: Coding scheme

Fragment examples (open coding)	Axial coding
<ul style="list-style-type: none"> <li>- 'Other form of sustainability'</li> <li>- 'Example function of event organisations'</li> <li>- 'Give back to local community'</li> </ul>	Social role of sports
<ul style="list-style-type: none"> <li>- 'Need for requirements in permit'</li> <li>- 'Inefficient demands of the municipality'</li> <li>- 'Permit application twelve weeks in advance'</li> </ul>	Event permit
<ul style="list-style-type: none"> <li>- 'Extensive traffic arrangements'</li> <li>- 'Volunteers are busy'</li> <li>- 'Changing boards with each event'</li> </ul>	Workload
<ul style="list-style-type: none"> <li>- 'Sustainability is no priority'</li> <li>- 'Safety is more important'</li> <li>- 'Current situation'</li> </ul>	Priorities
<ul style="list-style-type: none"> <li>- 'Sustainability is necessary'</li> <li>- 'Awareness is more important than regulations'</li> <li>- 'Finds sustainability important'</li> </ul>	Motivation
<ul style="list-style-type: none"> <li>- 'Smaller events need less than bigger events'</li> <li>- 'Differentiation between events'</li> <li>- 'Some events have more money for sustainability'</li> </ul>	Event differentiation
<ul style="list-style-type: none"> <li>- 'Need to pay more when you create more pollution'</li> <li>- 'Increase enforcement of regulations'</li> <li>- 'Pressure from municipality can be good'</li> </ul>	Regulations
<ul style="list-style-type: none"> <li>- 'Sustainability as the standard'</li> <li>- 'Ambition might be unrealisable'</li> <li>- 'Organisation do not do more than required'</li> </ul>	Ambition
<ul style="list-style-type: none"> <li>- 'Implementation of policy'</li> <li>- 'What is sustainability'</li> <li>- 'Green permits difficult to implement'</li> </ul>	Measurability
<ul style="list-style-type: none"> <li>- 'Cardboard is not necessarily better than plastic'</li> <li>- 'Plastic is unhandy'</li> <li>- 'Dispute about plastic with supplier'</li> </ul>	Plastic
<ul style="list-style-type: none"> <li>- 'Recycling is extra work'</li> <li>- 'Separate collection of waste'</li> <li>- 'Recycling of sand'</li> </ul>	Recycling
<ul style="list-style-type: none"> <li>- 'Fear for increased difficulty'</li> <li>- 'Paperwork is unnecessary and ineffective'</li> <li>- 'Stiff cooperation'</li> </ul>	Bureaucracy
<ul style="list-style-type: none"> <li>- 'Highly educated participants'</li> <li>- 'Bad behaviour participants'</li> <li>- 'Proud of not supplying goodiebags'</li> </ul>	Awareness

Fragment examples (open coding)	Axial coding
<ul style="list-style-type: none"> <li>- 'Municipality fails to facilitate'</li> <li>- 'Facilities need to be sufficient'</li> <li>- 'Use of aggregates'</li> </ul>	Facilities
<ul style="list-style-type: none"> <li>- 'Municipality should provide best practices and information'</li> <li>- 'Create best practices for other events'</li> <li>- 'No progressive sustainability initiatives in Utrecht'</li> </ul>	Best practices
<ul style="list-style-type: none"> <li>- 'Communication with event organisations should be improved'</li> <li>- 'Improve communication instead of implementing regulations'</li> <li>- 'Improve communication with sponsors about sustainability'</li> </ul>	Communication
<ul style="list-style-type: none"> <li>- 'Supplier constraint'</li> <li>- 'Supplier problems'</li> <li>- 'Dispute about plastic with supplier'</li> </ul>	Suppliers
<ul style="list-style-type: none"> <li>- 'Costs as a constraint'</li> <li>- 'Sustainable alternatives are expensive'</li> <li>- 'Costs are not always a problem'</li> </ul>	Costs
<ul style="list-style-type: none"> <li>- 'Lack of alternatives'</li> <li>- 'Unhandy alternatives'</li> <li>- 'Alternatives need to be affordable'</li> </ul>	Alternatives
<ul style="list-style-type: none"> <li>- 'Easier to be sustainable with more budget'</li> <li>- 'No budget for sustainability'</li> <li>- 'Subsidy from municipality of Utrecht'</li> </ul>	Budget
<ul style="list-style-type: none"> <li>- 'Water from local stakeholders'</li> <li>- 'Cooperation with local parties'</li> <li>- 'More cooperation between events'</li> </ul>	Cooperation
<ul style="list-style-type: none"> <li>- 'Sponsoring of plastic bottles'</li> <li>- 'Sampling is essential for event'</li> <li>- 'Sampling as a service'</li> </ul>	Sponsoring
<ul style="list-style-type: none"> <li>- 'Need for sustainability requirements'</li> <li>- 'Requirements would increase focus on sustainability'</li> <li>- 'Events are not rejected when there is no focus on sustainability'</li> </ul>	Requirements
<ul style="list-style-type: none"> <li>- 'Communicate strategy with partners'</li> <li>- 'Events part of strategic policy'</li> <li>- 'No concrete sustainability plans'</li> </ul>	Strategy
<ul style="list-style-type: none"> <li>- 'Municipality needs to punish polluters'</li> <li>- 'Increase enforcement of regulations'</li> <li>- 'Reward or punishment can be necessary'</li> </ul>	Control
<ul style="list-style-type: none"> <li>- 'Participant satisfaction rate'</li> <li>- 'Satisfied when the event looks good'</li> <li>- 'Satisfied when participants and public are satisfied'</li> </ul>	Satisfaction
<ul style="list-style-type: none"> <li>- 'Other reasons for sustainable outcomes'</li> </ul>	Practicality

Fragment examples (open coding)	Axial coding
<ul style="list-style-type: none"> <li>- 'Power on location is more reliable'</li> <li>- 'Separate garbage bins are not effective'</li> </ul>	Practicality
<ul style="list-style-type: none"> <li>- 'Waste solution (food bank)'</li> <li>- 'Give back to society'</li> <li>- 'Support of good case'</li> </ul>	Extra's
<ul style="list-style-type: none"> <li>- 'Clean up event afterwards'</li> <li>- 'Reuse of materials'</li> <li>- 'Protect trees from damage'</li> </ul>	Environmental sustainability initiatives
<ul style="list-style-type: none"> <li>- 'Sustainability influences image positively'</li> <li>- 'Society asks for sustainability'</li> <li>- 'Image important to event organiser'</li> </ul>	Image
<ul style="list-style-type: none"> <li>- 'Not aware of EU regulations'</li> <li>- 'EU regulations not seen as challenge'</li> <li>- 'Aware of EU regulations'</li> </ul>	EU regulations
<ul style="list-style-type: none"> <li>- 'Lack of knowledge'</li> <li>- 'Improve knowledge circulation'</li> <li>- 'Municipality needs to provide knowledge'</li> </ul>	Knowledge
<ul style="list-style-type: none"> <li>- 'Sustainability not a big theme in 2015'</li> <li>- 'Tension between remaining on background and actively stimulating'</li> <li>- 'Ways of feeding volunteers'</li> </ul>	Remaining