

Strategic Sustainable Development in Sport Organisations

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List of Abbreviations

e.g. - *exempli gratia*

EC2022 – European Championships 2022

et al. – *et alii*

FSSD – Framework for Strategic Sustainable Development

i.e. - *id est*

INGSO - International non-governmental sport organisation

IOC – International Olympic Committee

NGO - Non-governmental organisation

SDG – Sustainable Development Goals

SDP – Sport for development and peace

UN – United Nations

Summary in English

Through three studies in this thesis, I respond to the lack of literature in sport management that deals with sustainability strategic responses in sport organisations. In Study 1, I investigate the interaction of sport in its broad sense with sustainable development as perceived by international sport experts. By using systems thinking, I yield a systems map that highlights interactions between generated themes and foregrounds the mechanisms of sport and sustainability interaction, including 'visibility', 'safety', 'communication means', 'educational tool', and 'governance and integrity'. In Study 2, I use a Delphi methodology to add a forecasting element and build a consensus among 29 international sport experts on what actions are most needed in responding to sustainability by international sport organisations and align these with the elements of the Framework for Strategic Sustainable Development. Findings show that the most urgent are prioritising long-term sustainability and adopting a planned approach. Finally, in Study 3, I focus on the sport event spectators and their perceptions of sustainability at an international sport event (European Championships 2022). Grounded in signalling theory, the study shows how spectators interpret sustainability and identifies factors that make sustainability signals visible.

Summary in German

Die vorliegende Doktorarbeit untersucht strategische Managementoptionen in Sportorganisationen zur Förderung der Nachhaltigkeit. Die im Sportmanagement angesiedelte Arbeit umfasst drei empirische Studien. In Studie 1 untersuche ich die Interaktion von Sport im weitesten Sinne mit nachhaltiger Entwicklung, wie sie von internationalen Sportexperten wahrgenommen wird. Mit Hilfe des Systems Thinking erarbeite ich eine Systems Map, die die Interaktionen zwischen den generierten Themen hervorhebt und die Mechanismen der Interaktion zwischen Sport und Nachhaltigkeit in den Vordergrund stellt. Dies sind die Themen Sichtbarkeit, Sicherheit, Kommunikationsmittel, Bildungsinstrument und Governance und Integrität. In Studie 2 verwende ich eine Delphi-Methode, um ein Prognoseelement hinzuzufügen und einen Konsens zwischen 29 internationalen Sportexperten darüber zu erzielen, welche Maßnahmen von internationalen Sportorganisationen im Hinblick auf die Nachhaltigkeit am dringendsten benötigt werden, entsprechend den Elementen des Framework for Strategic Sustainable Development. Die Ergebnisse zeigen, dass es am dringendsten ist, der Nachhaltigkeit langfristig Priorität einzuräumen und einen geplanten Ansatz zu wählen. In Studie 3 konzentriere ich mich auf die Zuschauerinnen und Zuschauer einer internationalen Sportveranstaltung (European Championships 2022) und deren Wahrnehmung von Nachhaltigkeit. Auf der Grundlage der Signaltheorie zeigt die Studie, wie Zuschauerinnen und Zuschauer Nachhaltigkeit interpretieren und die Studie identifiziert Faktoren, die Nachhaltigkeitssignale sichtbar machen.

1. General Introduction

Policy makers offered sustainable development to solve many large-scale pressing social, economic and environmental challenges (Mebratu, 1998). These include, to name just a few, the loss of biodiversity, climate change (Steffen et al., 2015), poverty and inequality, human rights violations, and illiterate and ill populations (Sachs, 2015). Sustainable development emphasises intergenerational justice through which the present generations should ensure they meet their own needs without endangering the ability of the generations to come to do the same (World Commission on Environment and Development [WCED], 1987). The idea of sustainable development was further strengthened and operationalised as a guiding developmental framework in 2015 through the adoption of Agenda 2030 and its 17 Sustainable Development Goals (SDGs; UN, 2015). To reflect the urgency and extent of challenges it aims to address, in its scope, SDG Agenda included individuals, organisations, institutions, local communities and countries regardless of their location and thematic focus. While the SDGs broadly defined the direction for all stakeholders to follow, organisations, including sport organisations, faced the task of adapting their strategies to align with SDGs (Kemp et al., 2005). With this thesis, I tackle some of these challenges by conducting three studies that offer empirical evidence to assist sport organisations and event managers shape their strategies towards sustainable development.

1.1. Motivation and Aims

As per Sustainable Development Agenda, sport organisations are a potential enabler of sustainable development (UN, 2015). By contributing to development and peace, tolerance and respect, and empowering women and young people, sport is claimed to benefit health, education, and social inclusion. However, the

implementation of sport as an enabler of sustainable development faces several general challenges inherent in the concept of sustainable development and, consequently, in the structure of SDGs. A particular practical challenge presents the interconnectedness of the 17 SDGs through which the SDG Agenda can only reach its full potential with “mutually reinforcing actions” and “minimizing the trade-offs” (Nilsson et al., 2016, p. 320). Due to the complexity of sustainable development and already complicated and segregated policy settings, sport organisations need appropriate resources to facilitate the implementation. In that vein, holistic thinking across all domains is needed to translate SDGs effectively into tangible and impactful actions, ensuring a genuinely sustainable outcome (Skene, 2021).

Governing international sport organisations, including sport governing bodies, sport event governing bodies, special task bodies and representative bodies (Geeraert et al., 2014), take an essential role in promoting sustainable development because they (1) can operate on both global and local levels through their headquarters, events and other activities, partners and network, mirroring the global and local significance of sustainable development as highlighted by the World Commission on Environment and Development (WCED, 1987); (2) guide actions via agendas and policies for their members (e.g. national sport federations), highlighting the opportunity to implement sustainable development strategies top-down. The first two studies in this thesis focus primarily on the non-governmental and intergovernmental international sport stakeholders that partake in the sport governance in their respective ways. Many of these organisations gather membership organisations, so they have the international perspective, but at the same time, since they represent organisations on national and local levels, they may also have insights into those areas. In general, however, all sport organisations are

urged to contribute to the SDG Agenda, regardless of their scope and particular vision, and they can profit from this research to a certain extent.

The leadership of governing international organisations is expected to respond to their socially relevant role (Waardenburg & Nagel, 2019) to consider pressing challenges, such as fighting climate change, reducing inequality, and fighting corruption. The introduction of the SDG Agenda provides an opportunity for an integrated address of the latter and other relevant topics. Concurrently, it challenges those organisations due to broadening the scope of developmental efforts within sport organisations (Lindsey & Darby, 2019). Sustainable development now serves as a comprehensive framework that includes not only sport for development and peace initiatives and corporate social responsibility activities but also integrates sustainability across all operations. This holistic approach allows all sport organisations to address multiple dimensions relevant to the SDGs.

There are numerous accounts of strategy within the strategic management literature. For instance, Chandler (1969) suggested that strategy involves articulating an organisation's long-term goals and objectives, implementing actions, and allocating the requisite resources to attain those objectives. Andrews (1971) outlined that strategy, albeit in a corporate setting, is “a pattern of decisions” (p. 52) that defines goals, policies and plans for their attainment, the business it aims to be a part of, the kind of organisation it is or wants to be, and a contribution it seeks to give to its stakeholders. There are several areas of agreement among the theorists about common strategy characteristics (Mintzberg, Ahlstrand & Lampel, 1998). When considered together with strategic and governance principles for sustainability (Broman & Robert, 2017; Kemp et al., 2005), these outline the meaning of the strategic approach to sustainable development addressed in this thesis. These include:

- 1) Strategy is linked to both the organisation and its environment; this fundamental premise underscores the organisation's use of strategy to navigate and respond to dynamic and changing environments. To follow sustainable development, organisations need to put themselves into the context of their immediate environments and global perspectives.
- 2) Organisations are part of larger systems; actions in one part of the system can have repercussions elsewhere. Interdependence is mirrored in viewing the organisations as a part of larger systems and that actions in one part of the system can have consequences elsewhere.
- 3) The complexity of strategy arises from the ever-evolving nature of circumstances brought about by change. Sustainable development rests on innovation and adaptation. Therefore, organisations are urged to stay flexible and adaptable to new circumstances.
- 4) The study of strategy extends to its content and process, encompassing the actions taken and the decision-making processes employed for implementation. Notably, strategies are not strictly deliberate, as theorists acknowledge potential disparities between intended and realised strategies. For sustainable development, strategy content is relevant, but because success rests on the acceptance of all stakeholders, the decision-making process is essential.
- 5) A holistic address includes economic, social, and environmental aspects.
- 6) A long-term perspective is considered, recognising the interconnectedness of social, economic, and environmental systems. It aims to avoid short-term gains that may have negative consequences.

- 7) An environmentally sustainable society avoids the systematic elevation of concentrations of substances extracted from the Earth's crust, substances produced by the society, and deterioration through physical means.
- 8) A socially sustainable society does not subject people to structural obstacles to health, influence, competence, impartiality and meaning-making.

The need for a holistic approach, where the social, environmental and economic sustainability dimensions are addressed simultaneously, problematises available literature on the strategic sustainability approaches of international sport organisations. In this nascent area of inquiry, available literature (e.g. Santini & Henderson, 2021; Vrontou et al., 2019) focused on the environmental pillar of sustainability when examining the sustainability efforts of international sport organisations. Few studies, including Morgan et al. (2021) and Moon et al. (2021), addressed sustainability as a holistic notion.

Sport events hold significance for international sport organisations as they play a pivotal role in implementing their missions and visions. Consequently, the sustainability of these events is a crucial aspect to consider as a part of their sustainability strategy. Sport events are a public display of the organiser's commitment to sustainability, and they also have the potential to play a role in raising awareness about sustainability and potentially inspiring behaviour change beyond the event itself (Schmidt, 2006; UN, 2022; UNFCCC, 2015). In that sense, it seems necessary to study how event sustainability is perceived and interpreted by various stakeholders, including spectators at the event. Extant scholarly literature on this topic is scarce and includes focusing on sport fans or spectators and their engagement with environmental sustainability campaigns (e.g. Casper et al., 2020;

Trail & McCullough, 2021), providing evidence on the environmental sustainability campaign acceptance.

The available literature does not yet provide enough support for sport organisations in creating their sustainability strategies and sustainability strategies of events according to the holistic notion of sustainability. In that vein, with this thesis, I address this research gap by aiming to:

1) investigate the perspectives of sport experts regarding the interaction between sport and sustainable development;

2) explore the consensus-level strategic priorities for sustainable development from the perspective of experts in organisations responsible for governing international sport and how they align with the five components of the Framework for Strategic Sustainable Development model;

3) understand sport event spectators' perspectives related to the sustainability at the event, explore how these align with their definitions of sustainability and determine the characteristics of highly observable sustainability signals.

1.2. Structure of the Dissertation

This thesis consists of seven chapters. In Chapter 1, I introduce the topic, explain the motivation for the thesis and outline the research aims. In Chapter 2, I first define the concept of sustainable development. Then, by referring to the relevant literature, I develop a narrative of how sport interacts with three pillars of sustainability: people, prosperity and the planet. This overview depicts the complexity of sports' interaction with sustainable development and sets the scene for three research studies (Chapters 4, 5 and 6). Chapter 3 outlines the general research approach of the thesis and introduces the specific methodology for each of the studies. Chapter 4 focuses on developing a systems thinking map of experts'

interpretations of how sport interacts with sustainable development. Chapter 5 draws on the Delphi study of the same sample of experts to establish consensus among them on strategic-level priorities for sustainable development in international sport organisations and aligns it with the Framework for Strategic Sustainable Development. Finally, Chapter 6 is an instrumental single case study focused on the spectators' interpretations of sustainability at a sporting event. In Chapter 7, I outline the theoretical and managerial implications of the three studies and draw attention to general methodological limitations. The overview of studies is presented in Table 1:

Table 1

Overview of the studies

Title	Research Question/s	Theoretical Foundations	Methodology & Methods
Understanding the Nexus of Sustainable Development and Sport: The Systems Thinking Perspective	1. How do sport experts interpret the interaction between sport and sustainable development?	Sustainable development, systems thinking	Semi-structured expert interviews
Strategic Sustainable Development in International Sport Organisations: A Delphi Study	1. What strategic responses of international sport organisations are most relevant in increasing international sport organisations' contribution to sustainable development in the near future? 2. How do the strategic responses align with the Framework for Strategic Sustainable Development?	Framework for Strategic Sustainable Development	Delphi study; semi-structured expert interviews
Spectators' Perspectives on Sustainability at the 2022 European Championships in Munich	1. What event-related signals do spectators at EC2022 interpret as sustainable? 2. How do the spectators' lay beliefs about sustainability align with how spectators of the EC 2022 interpret sustainability signals? 3. What are the characteristics of highly observable signals?	Signalling theory	Instrumental single case study; participant observations, informal interviews, semi-structured interviews, document and media analysis

2. Sustainable Development and Sport

2.1. Defining Sustainable Development

The concept of sustainable development has gained prominence in the international community throughout the 20th century as the concerns for the state of Earth's natural resources grew (Kopnina & Shoreman-Ouimet, 2015). As an extension of the environmental debates, in the 1980s, the concept expanded to accommodate the rising socio-political consequences of human development (Robinson, 2004). The environmental issues and human development have been explicitly married on an international level in the account that offered the most influential definition of the concept yet, the United Nations commissioned report "Our Common Future", widely known as Brundtland Report (World Commission on Environment and Development, 1987). The report defined sustainable development as development that "meets the needs of current generations without compromising the ability of future generation to meet their own needs" (World Commission on Environment and Development, 1987, p. 23). The authors of the report argued that environmental, developmental, and poverty issues must be addressed simultaneously in a mutually supportive and complementary fashion (Robinson, 2004).

As presented in the Brundtland Report, sustainable development propelled the global view of the planet's future. Although it remained the most visible definition to date, it has been widely criticised for its anthropocentrism and "acclaimed vagueness and ambiguity" (Mebratu, 1998, p. 494). A multitude of definitions and conceptualisations have emerged, resulting in a wide range of interpretations for sustainable development. With over a hundred variations in its definition, sustainable development appears to hold different meanings for different individuals and organisations (Robinson, 2004). This presents a potential risk, as the diverse

interpretations could hinder its ability to bring about meaningful change (Matthew & Hammil, 2009; Waas et al., 2011) and create an opportunity for the term to be exploited for hidden political, corporate, and institutional agendas that deviate from its original intent (Gray, 2010; Johnston et al., 2007; Washington, 2005).

Proportionate to the number of positions on sustainable development, the literature offered a plethora of models to understand the concept. The most prevalent seems to represent sustainable development through three same-sized and intertwined circles (or Venn's diagrams) representative of the environment, society and economy. At their intersection in the middle lies sustainable development. This model has also been known as the 3 Ps (people, planet, prosperity/profit) or the "triple bottom line" developed in the corporate literature as an accounting framework for companies (Elkington, 2004; Slaper & Hall, 2012). The model, although praised for including the plurality of views in the discourse of sustainable development, faced criticism for compartmentalising the three issues, disallowing their integrative address (Giddings et al., 2002), overlooking the interconnections within and among three pillars as well as disregarding the time dimension (Lozano, 2008). Other models included other dimensions, such as an institutional pillar, dimensions of time and space or used the so-called nested approach placing the economy as a subset of society within the environment (e.g. Giddings et al., 2002; Mebratu, 1998) to respond to the over-emphasis of economic dimension.

Besides sustainable development models, scholarly literature offered sustainable development principles that aim to guide needed actions. Waas and colleagues (2011) identified four fundamental principles: 1) the normativity principle posits that sustainable development is a construct of societal and normative nature; 2) the equity principle implies justice or fairness between the present and future generations (inter-generational equity), people of the current generation regardless of

their social standings (intra-generational equity), various levels of cooperation from local to global (geographical equity), in governance that involves all concerned stakeholders in a participatory way (procedural equity), and in valuing survival of other non-human forms of life as much as the human (inter-species equity); 3) the integration principle postulates that sustainable development is an integrative concept where environmental and developmental matters need a holistic address; and 4) the dynamism principle highlights that sustainable development is a dynamic process rather than an end state. For this work, I adopted the Brundtland Report's definition of sustainable development as it is the most acclaimed account. Fully aware that some authors regard sustainability as the destination and sustainable development as the journey to get to the point of being sustainable (Washington, 2015), I use the terms sustainability and sustainable development interchangeably in this text.

2.2. Sport and Planet

Sport and environment have a bidirectional relationship: sport is performed in the environment and, consequently, leaves its environmental footprint (Thibaut, 2009). In turn, a stable climate and appropriate environmental conditions such as temperature, wind, or humidity make sport activities possible (Dingle & Stewart, 2019; Orr & Inoue, 2018). The direct impact of sport on the environment is evident, for instance, through the adverse effects the recreational trampling leaves on some plant communities, vegetation (Pescott & Stewart, 2014) and wildlife (Larson et al., 2016), especially in the winter ski areas (Sato et al., 2013). Furthermore, sport can indirectly impact the climate by providing a reason for sport tourists, spectators, recreational or professional athletes, officials and other accompanying personnel to travel and, consequently, generate travel-related carbon emissions (Thibaut, 2009;

Wicker, 2018; Wicker, 2019). Moreover, sport events require vast amounts of non-renewable resources for the infrastructure and facilities construction and functioning (Loland, 2006). On a more positive note, active transport is shown to benefit the environment by decreasing air pollution and, at the same time, benefiting the health of individuals (Rabl & Nazelle, 2012). Choosing to live car-free is one of the most promising strategies to reduce greenhouse gas emissions in developed countries (Wyes & Nicolas, 2017).

Conversely, the environment impacts the sport as well as its spectators. Suppose the climate conditions are not favourable for the sporting event. In that case, it can interfere with a result of the competition or cancellation, resulting in decreased revenue (Kay & Vamplew, 2006). These worries are particularly prominent in the winter sports that rely on the snow that, due to climate change, is no longer given in many winter sport areas (Elsasser & Bürki, 2002). In the realm of physical activity, air pollution is a significant concern, as air pollution may prevent people from being physically active in highly polluted areas (Tainio et al., 2021). Therefore, the rising concern for environmental issues and climate change impacts sporting activities and should present a significant and urgent problem for the sport stakeholders (Orr & Inoue, 2018).

Sport does impact the environment but compared to other industries, the sport sector is far from having the most significant detrimental effect (McCullough & Hellison, 2018; UNFCCC, n.d.). Because of its societal position, however, it is uniquely placed to contribute to various efforts to preserve the environment. Consequently, environmental sustainability has moved up on the priority list of many sport organisations (McCullough et al., 2016; Thibault, 2009). This recognition has been strengthened with partnerships with other environmental efforts. United Nations Framework Convention on Climate Change (UNFCCC) acknowledged that sport

could contribute by increasing the environmental sustainability of all sport stakeholders and can serve as a unique and cross-sector awareness-raising tool (UNFCCC, n.d.).

Sport stakeholders increasingly take a proactive role in mitigating environmental change corresponding to their unique contexts (McCullough et al., 2016), with the International Olympic Committee (IOC) at the forefront. The IOC recognised its potential in contributing to the Paris Agreement and, in partnership with the United Nations, led the Sport for Climate Change Initiative that aims to "set the course for the sports world to address climate change" (IOC Takes Leadership Role in the UN Sports for Climate Action Initiative, 2018, unpagged). The organisation aims to be carbon-positive by 2024, achieving climate neutrality in 2020. All upcoming Olympic Games will have to be carbon-neutral, and from 2030, the Olympic Games Organising Committees will contractually be obliged to be carbon-positive. The Games will use its visibility to showcase climate-friendly solutions, operate sustainably and increase the usage of existing infrastructure (IOC to be Climate Positive in 2024, 2021).

Despite many prominent examples of positive action towards environmental sustainability in international sport context, the sport stakeholders are under scrutiny for their activities that are often perceived as greenwashing. The most prolific examples include mega sporting events, the Olympic Games and the FIFA World Cup. For some, the latest World Cup in Qatar in 2022 may be the most prominent case of greenwashing (Boykoff, 2022). FIFA claimed the World Cup to be the first carbon-neutral World Cup, which aimed to set new benchmarks for long-term community use of infrastructure influencing future sporting events. The tournament introduced a dedicated program for managing stadium energy, water, and waste impacts throughout design, construction, and operations. All eight stadiums used for

the football matches received Global Sustainability Assessment System certification and were designed for reuse and repurposing, with most having demountable components. All venues were easily accessible by public transport (FIFA, n.a.). Yet, independent carbon accounting organisations and sport event experts found extensive flaws in FIFA's environmental claims (Boykoff, 2022; Defrasne, 2022). An issue detected by the non-governmental environmental organisation Carbon Market Watch is that the organisers projected the World Cup will produce 3.6 megatonnes of carbon dioxide equivalent. However, the Carbon Market Watch analysis revealed that this figure does not precisely reflect the tournament's true environmental impact, considering the selected accounting method (Defrasne, 2022). Moreover, investigative journalist Salliaas recently reported that the promised community impact of sport stadia in Qatar is, at least during his visit to the country, not present (Selliaas, 2024). Another example of the discrepancy between environmental aims and claims and their implementation and resulting outcomes is the Olympic Games.

Boykoff & Mascarenhas (2016) analysed the Rio Olympic Games in 2016, where the event was supposed to act as a driver of the green development of the host city. Authors, however, concluded that prevalent IOC's capitalistic aspirations were in collision with meaningful and effective environmental actions. Geeraert and Gauthier (2018) illustrated the inefficacy of the mechanisms employed by the IOC in overseeing Games organisers. The authors argued that these mechanisms fall short in influencing the incentives of Olympic Games organisers to align with environmental sustainability objectives. Additionally, the proposed changes introduced through the IOC's Agenda 2020 reforms were deemed inadequate in addressing this issue.

Authors from the scholarly literature on sports management pertaining to environmental sustainability have likewise addressed various topics concerning sports' contribution to environmental sustainability. In the rapid review, Trendafilova

and McCullough (2018) have identified that the most common research areas were management, spectators, facilities, marketing/communications, performance evaluation and social sustainability. This indicates that from a research perspective environmental sustainability in sport is most commonly addressed through change of organisational policies, exploring fan and spectators' engagement and employing marketing and communication to be more sustainable in sport.

2.3. Sport and People

Participation in sport is often underlined by the pursuit of excellence, either when compared to the elite performance in a competition or to satisfy ambition, where the primary point of reference is a personal achievement (Bailey et al., 2010). In addition, participants in sport can also be motivated to satisfy needs other than performance; for instance, these can improve one's social life, gain a sense of identity, and initiate personal renewal (Bailey et al., 2010). By engaging in sport activities, participants have the potential to satisfy their various needs that can translate to personal benefits and, as an extension, also to society. Sport's potential role in society can, therefore, be viewed as the "agent of personal and social change" (Spaaij, 2009, p.1109).

Governments, intergovernmental organisations, and a plethora of sport and development NGOs worldwide utilise sport to attain various societal goals (Beutler, 2008; Burgheim et al., 2017; Coalter, 2007; Kidd, 2008). For instance, states support elite sports, hoping to lead to a virtuous circle of sport (Grix & Carmichael, 2012). The model hypothesises that elite sporting success will increase international prestige, facilitating a feel-good factor and strengthening the collective sense of identity. In turn, this will trickle down to the grassroots level to increase participation in the sport,

making a nation healthier and simultaneously expanding the talent pool with potential for new sporting success.

On the grassroots level, particularly in disadvantaged areas that, due to the limited funding, have little means to support developmental efforts, sport is seen as a valuable, cost-effective tool. When placed as a means for international development, the movement is labelled "sport for development and peace" (Kidd, 2008). It is claimed that it can facilitate social, economic and moral ameliorations through its position as apolitical, non-threatening activity with shared universal, transnational and transhistorical meanings (Darnell et al., 2019; Levermore & Beacom, 2009). It owes its popularity to its "ability to capture or 'hook' a large number of people—particularly those interested in sport and physical activity—and use the momentum in and around the sport as a strategic vehicle to communicate, implement, and achieve nonsport development goals" (Schulenkorf et al., 2016, p. 22).

Various benefits of sport for society are already well established in the literature; however, conceptualisations vary. For example, Bailey (2005) outlined that by doing sport, children can reap the benefits to their physical and mental health, cognitive and academic development, as well as decrease crime, truancy and disaffection. Lee et al. (2012) were concerned with the measurement of the social impacts of sport and, for that purpose, developed an instrument that included five constructs: Social capital that measures social relationships, networks, social proactivity and participation in the community; collective identities measures the sense of belonging to the community; health literacy measures individual's abilities to make a healthy decision that benefit one's health; well-being refers to the life quality; and human capital measures one's knowledge, skills, competencies, and attitudes conducive to personal development and societal well-being. Bailey et al. (2013) developed a comprehensive framework of benefits sport may have on human

development. They emphasised that the benefits "are not autonomous, independent, or disconnected. They reinforce each other, and their true value can only be properly appreciated from a broad, holistic perspective" (Bailey et al., 2013, p. 289). Capitals, as the authors label the outcomes of sport, include physical capital – the benefits to physical health and healthy behaviours; emotional capital – psychological and mental health benefits; individual capital – positive influence on the elements of character, life skills, social skills and values; social capital – benefits arisen from establishing the networks due to the participation in sport (e.g. social inclusion); intellectual capital – cognitive and educational benefits; and financial capital – benefits in terms of power, job performance and attainment, productivity and costs of for the health care. Authors warned, however, that caution is needed as only physical and emotional capital rest on a well-established and firm evidence base (e.g. Penedo & Dahn, 2005; Saxena et al., 2005; Warburton et al., 2006).

On the other hand, it is worth noting that sport practice and management are not immune to negative incidents. Sport practice, either professional or grassroots, is linked with a plethora of potential risks for athletes' health and well-being. Acts of violence can come from coaches, peers or parents, can occur in various settings, including online outlets, and can include several threats, including injury, mental health issues, physical, sexual and other abuse, inappropriate training regimes, neglect, bullying, and doping (Mountjoy et al., 2015). The organisational-level threats include abuse from spectators, abuse-normalising culture, systematic doping, discrimination and inappropriate medical treatment. To mitigate and handle these threats sport organisations are recommended to implement holistic safeguarding measures to enable violence-free sport environment (Mountjoy et al., 2015).

Sport integrity is a prominent and critical issue in sport management. The discussions have been spurred by the high-profile cases of sport organisations

lacking integrity that demonstrated the legitimacy crisis caused by the misalignment of the organisational goals, how they are achieved and the outcomes they provide, with their stakeholders' expectations (Anagnostopoulos & Winand, 2019; Gardiner, Parry & Robinson, 2017). The lack of integrity in sport management includes a range of issues including corruption, sport betting manipulation, match-fixing, disrespect for human rights, and doping (Gardiner et al., 2017; Ordway & Opie, 2017). To tackle these challenges, Ordway and Opie (2017) suggested organisations and their leaders practice ethical decision-making, partner with governmental and other independent agencies with proper resources, and implement good governance principles. The latter is a popular topic among sport researchers and practitioners; a systematic review identified more than 250 good governance principles in the sport management literature (Thompson et al., 2023). However, the three principles featuring most commonly in good governance models were accountability, democracy, and transparency (Thompson et al., 2023).

2.4. Sport and Prosperity

Research on the economic dimension of sport gained impetus in the last couple of decades. It reflected the ever-growing demand for participation and the consumption of sport, and consequently, the interest of various stakeholders in the monetary value sport could produce (Andreff & Syzmanski, 2006). The economic impact of sport is seen on micro-and macroeconomic levels, the former impacting the individuals and the latter societies. Therefore, sport's economic impact is often closely linked to its social impact as a function of its multidimensionality.

On a microeconomic level, participation in sport seems to benefit the individuals' position in the labour market and, consequently, financial gains. This can intuitively be explained through several channels (Lechner, 2009). The first refers to

the effect of sport on productivity as a function of better health and well-being; the second addresses the social networking effect for activities performed in groups; and the third concerns the employers who see an added value in having an active and thus healthy and motivated employee. Positive association of participation in sport with labour market outcomes is observed from the background of various ages, from early-years participation (Cabane & Clark, 2015) throughout high school (Ewing, 1998; Kosteas, 2012) to college (Lang & Caudill, 1991). Multiple authors caution that the causal effects should not be attributed too early before examining all factors. Still, the available evidence indicates that sport participation is a career and financial asset. Furthermore, some sport programmes are increasingly designed to increase employment opportunities by acquiring life skills that can be used in the non-sport setting (Coalter, 2013; Cognac, 2014; Gould & Carson, 2008), including, but not limited to, professional environments.

On a macroeconomic level, sport is one of the drivers of the economy. To illustrate this point, I will use the European Union as an example. The European Commission has, in its White Paper on Sport, emphasised the economic dimension of sport as a contributor to economic growth and job creation and as a tool for local, regional, urban and rural development (European Commission, 2007). Following the document, the European Commission published two European-wide studies that aimed to measure the economic importance of sport in the member states and the European Union by establishing the Sport Satellite Account (SSA). The extensive definition of sport-related services and products distinguished between a statistical, a narrow, and a broad definition of sport constituted the measurement (EU Working Group on Sport and Economics, 2007). The study showed that in 2012, the Gross Domestic Product (GDP) related to the sport was 2.12% of total EU GDP. Regarding employment, the sport-related share was 2.72%, underlining the sector's importance

in countering unemployment (European Commission, 2018). On a national level, the differences among countries were formidable. The highest GDB sport-related share had Austria and Germany, with 4.12% and 3.90%, respectively, whereas Bulgaria, with 0.80%, occupied the bottom of the list. Regarding employment, the differences were also extensive; Austria had 5.63% and Romania, in contrast, 1.22% employed in the sport sector (European Commission, 2018). To summarise, sport has become an essential economic actor in the globalised economies (Andreff & Syzmanski, 2006).

Sport can have a relevant role in lowering the public health cost of inactivity. The healthcare costs developed economies pay due to physical inactivity ranges from 1% to 2.6% (Pratt et al., 2014). Estimated on a global level, physical inactivity costs went in 2013 up to \$53.8 billion. Besides, the physical inactivity cost related to productivity loss amounted to \$13.7 billion, and physical inactivity was calculated to be responsible for 13.4 million disability-adjusted life-years (Ding et al., 2016). The study published in *The Lancet* (Ding et al., 2016) provides the case for promoting physical activity to counter health and economic burdens.

A further example of the socio-economic impact of the sports sector is seen through volunteering. Sport sets in motion more volunteers than any other; in many countries, the sport sector relies on volunteers (European Commission, 2011). In the EU, 6% of people in total engage in voluntary activities in sport (European Commission, 2022). Social benefits linked to sport volunteering include better health and increased productivity for people in the community, reduced medical costs, reduced juvenile crime, and developing character and values associated with sport such as fair play. In addition, it can be a tool for building social capital, social cohesion and increasing civic engagement, a sense of identification and belonging, civic and national pride, international recognition and economic and tourism

development (Hoye et al., 2010; Stewart et al., 2004). When translated to monetary value, a German example shows that volunteers in sport clubs, i.e. coaches and board members' work amounts to € 4.3 Billion per year (Breuer et al., 2020).¹

2.5. Strategic Management in Sport Organisations against the Background of Sustainable Development

In recent years, international stakeholders in sport outlined how sport in general can contribute to various SDGs and align their activities with the SDG framework. Prominent examples include the United Nations Office on Sport for Development and Peace (2015), the United Nations Educational, Scientific and Cultural Organisation (UNESCO; 2017), the Commonwealth (2015, 2017), the Sustainable Development Goals Fund (2018), and the International Olympic Committee (IOC; 2015); these organisations were among the first to use the SDG Agenda as a basis for defining sport's role in sustainable development at the international stage. Other organisations followed these initiatives by creating sustainability strategies for their organisational contexts. For example, World Sailing, an international governing body for sailing, envisioned in their strategy Sustainability Agenda 2030 “a world in which millions more people fall in love with sailing; inspired by the unique relationship between sport, technology and the forces of nature (...) to protect the waters of the world” (World Sailing, 2016, p. 4). World Sailing (2016) aims to leverage its unique position to advocate for water protection upon which their sport depends.

¹ To the best of my knowledge, these data are the most recent estimates available. Even though information on volunteering is regularly issued as part of the Sport Development Report series, I am unaware that the translation to monetary value is available in the newest edition of the Report.

The academic community has shown some, albeit limited, interest in the growing emphasis on integrating sustainability into the strategies of international sport organisations, especially when taking a holistic perspective to sustainability. For instance, strategy scope and content were addressed in the study by Morgan et al. (2021). The authors revealed a fragmented and unplanned approach towards sustainability within the Commonwealth Games Association. Content-wise, these organisations primarily focused on contributing to the SDG Agenda through programmes targeted at gender equality, health, and education. Moon et al. (2021) investigated international sport federations' processes to implement sustainability. The authors discovered five approaches: the implementation of pilot events focused on sustainability, collaboration with non-governmental organisations, partnerships with sustainability consultancies, the establishment of dedicated sustainability committees, and the adoption of a comprehensive sustainability strategy supported by a full-time sustainability manager. Studies in this thesis respond to the scarcity of academic literature that addresses strategies of international sport organisations focused on the holistic notion of sustainability.

3. Methods

The studies in this thesis are grounded in constructivist and interpretive perspectives. Aligned with this, they ontologically adhere to relativism (Guba & Lincoln, 1989). Relativism acknowledges that reality is socially constructed and multiple interpretations exist. It recognises that different individuals or groups may have different realities or understandings of a phenomenon (Guba & Lincoln, 1989). Consequently, the epistemological position holds that the context, experiences and values of the researcher and the participants influence knowledge. It emphasises the importance of understanding individuals' subjective meanings and perspectives and interpreting their experiences. Both ontological and epistemological grounding has consequences for the choice of methodology. In this case, the methodology is directed towards understanding and sense-making of the interaction (Guba & Lincoln, 1989). For the research papers in this thesis, I used qualitative research methodologies that helped me answer the respective research questions.

In strategic management research, according to Mir and Watson (2000), constructivism highlights the active role of strategy researchers as participants rather than passive observers. They are not solely information processors or reactors but actively contribute to determining which organisational structures are more or less likely to be adopted. They engage in a community of practice where knowledge about strategy is generated through rule-based conversations. This perspective emphasises that strategy researchers are not detached observers but integral members of the process, shaping and influencing the outcomes.

In Study 1, I employed qualitative research design based on systems thinking. The systems-thinking perspective suggests a departure from narrow, analytical methods towards a comprehensive approach (Gharajedaghi, 2011). It deals with complexity by considering interconnected factors and employs both reductionism

(breaking down) and constructivism (rebuilding the issue as a whole). Instead of viewing problems in isolation, it aims to comprehend issues of various scales, complexities, and fields (Hester & Adams 2017). Additionally, the systems-thinking perspective assumes that apparent events and patterns originate from concealed systemic structures and mental models.

In Study 2, I used a three-round Delphi study, a structured group communication process that enables a collective of individuals to tackle a complex problem together. (Linstone & Turoff, 2002). Delphi method was chosen as the aim was to explore, identify, and prioritise information that could lead to a consensus (Okoli & Pawlowski, 2004). It involved iterative questionnaires that build upon earlier responses designed through systematic communication with panellists presumed to possess expertise in the field of study (Rowe & Wright, 2001). The method yields a statistical group response and ensures respondents' anonymity, as experts do not communicate directly with one another (Day & Bobeva, 2005).

The data collection for Studies 1 and 2 included 29 semi-structured expert interviews that took place between May and December 2020 using an online video communication platform. Prior explicit consent was obtained from the experts, and all interviews were recorded and transcribed verbatim. The interview schedule covered various aspects, including the expert's background information, their familiarity with sustainable development and the SDG Agenda, an outline of their organisations' efforts towards sustainability, their understanding of how sport interacts with sustainable development, and the experts' recommendations on actions needed to enhance sport's contribution to the SDG Agenda.

Study 3 is designed as an instrumental single case study where the primary focus was not on the specific case itself, but rather on how the case offered valuable insights into spectator responses (Stake, 2005). Data collection included participant

observation, event-related document and social media analysis, informal and 12 semi-structured interviews with spectators of European Championships in Munich in 2022. Interview schedule included questions pertaining to spectators' understanding of the concept of sustainability, their impressions of the event in general and impressions related to sustainability at the event. The data was then analysed using the thematic analysis.

4. Study 1: Understanding the Nexus of Sustainable Development and Sport: The Systems Thinking Perspective

Publication (peer-reviewed): Glibo, I. & Koenigstorfer, J. (2023). Understanding the nexus of sustainable development and sport: The systems thinking perspective.

Sustainability: Science, Practice and Policy. 19(1), 2240664.

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Main author: Iva Glibo

Author contributions: I.G. Conceptualisation; Methodology, Data collection; Data analysis; Writing - Original draft preparation; J.K.: Conceptualisation; Methodology; Project administration; Resources; Supervision; Writing - Review & editing.

Abstract

This study aims to explore how international sport experts make sense of sport's interaction with sustainable development. We² adopted the interpretivist lens, combining the viewpoints of identified experts with the systems thinking approach. We conducted 29 semi-structured interviews with decision-makers in international sport organizations who were responsible for sustainable development in their daily work for their organization. We used an inductive approach for theory building to analyze the data and the systems map to show the various interrelations of the categories that were identified. The systems map offers a visualization of perceived causal connections that stem directly from the interviews with the experts. The map contains 58 variables, including nine themes and 49 categories, which are connected

² In this thesis, studies involved a team of authors, and as a result, the inclusive term 'we' is used to refer to the collective authorship throughout Chapters 4 to 6.

via 112 causal links, indicating the interconnected structure. The themes “environment,” “social inclusion,” “economic growth,” and “health and wellbeing” represent outcomes of sport, while “visibility,” “safety,” “communication means,” “educational tools,” and “governance and integrity” are mechanisms of how sport interacts with sustainable development. The systems map presents a tool for understanding the complexity of relationships between key variables at play that can help policymakers, practitioners, and researchers when formulating, testing, and implementing various policy options directed toward increasing sustainability for sport stakeholders.

5. Study 2: Strategic Sustainable Development in International Sport

Organisations: A Delphi Study

Publication (peer reviewed): Glibo, I., Misener, L., & Koenigstorfer, J. (2022).

Strategic Sustainable Development in International Sport Organisations: A Delphi Study. *Sustainability*, 14(16), 9874. <https://doi.org/10.3390/su14169874>

Main author: Iva Glibo

Author contributions: I.G.: Conceptualisation; Methodology; Formal Analysis; Investigation; Writing – Original draft preparation; Project administration; L.M.: Methodology; Writing – Review and Editing; Supervision; J.K.: Conceptualisation; Methodology; Writing – Review and Editing; Supervision; Project Administration

Abstract

The study aims to explore the consensus-level strategic priorities for sustainable development from the perspective of decision-makers in organisations responsible for governing international sport and how they cluster within the Framework for Strategic Sustainable Development. We employed the three-round Delphi study with decision-makers from international sport organisations. Based on the 29 semi-structured interviews in the first round, we inductively generated items for questionnaires for the subsequent two rounds. The process yielded 20 items representing strategic priorities determined by 20 experts in the last round. The highest-ranked item was normative change, in which sustainability is prioritised throughout all organisational strategies and actions. Moreover, planned efforts that are part of a long-term strategy and embedding sustainability requirements at the bidding phase of sport events were considered with high priority. The 20 items clustered into four out of five levels of the Framework for Strategic Sustainable

Development, namely system, success, strategic guidelines and actions. No items could be assigned to the framework's tool level, potentially indicating gaps of strategic consideration. The findings from the Delphi study add a forecasting element to the research and practice of strategic sustainability in the management of sport by revealing consensus-level strategic priorities for the future.

6. Study 3: Back to the Roofs! Spectators' Interpretations of Sustainability

Signalling at the 2022 European Championships in Munich

Submitted for publication: Glibo, I., Misener, L., Koenigstorfer, J. & Trendafilova, S. (in peer review process). Back to the Roofs! Spectators' Interpretations of Sustainability Signalling at the 2022 European Championships in Munich.

Main author: Iva Glibo

Author contributions: I.G.: Conceptualisation; Methodology; Formal Analysis; Investigation; Writing – Original draft preparation; Project administration; L.M.: Conceptualisation; Methodology; Writing – Review and Editing; Supervision; J.K.: Conceptualisation; Methodology; Writing – Review and Editing; Supervision; Project Administration; Resources; S.T.: Conceptualisation; Methodology; Supervision; Writing – Review and Editing

Abstract

Research question: The aim of the study is to explore what event-related signals spectators at sport event interpret as sustainable according to their top-down or bottom-up perspectives, how the spectators' sustainability definitions align with their interpretations of sustainability signals, and what the characteristics of highly observable signals are.

Research methods: We employed an instrumental single case study of the 2022 European Championships in Munich (EC2022) using several data sources: event strategy documents and social media, participant observation, 12 semi-structured interviews as well as informal interviews with event spectators. To anchor our work, we used signalling theory differentiating between top-down and bottom-up signal receivers. To analyse the data, we used thematic analysis.

Results and findings: Findings revealed that spectators defined sustainability based on environmental concerns related to resource use. The contrasting interpretations between bottom-up and top-down spectators were most apparent regarding social and economic event signals. Those adopting a bottom-up perspective and regarding sustainability as primarily environment-related placed greater emphasis on environment-related signals. Highly visible signals were integrated into the event brand, and therefore spread via multiple media channels; they were well aligned with local practices and expectations; and they took advantage of ceremonial moments.

Implications: Sustainability-driven event managers are recommended to embed the sustainability concept into the event brand's activities. Spectators' understanding of the concept and their lived event experiences should inform how sustainability signals directed at event participants are incorporated into event management.

6.1. Introduction

Sustainability has become increasingly important for the organisers of sport events (Boykoff, 2021). Concurrently, communicating their commitment to sustainability or signalling (Connelly, Certo, et al., 2011; Connelly, Ketchen, et al., 2011) is critical for several reasons. Signalling is an opportunity to create shared sustainability engagement and communicate values with event visitors (Newig et al., 2013), as their behaviour is essential for sustainability enactment. Sport events are regarded as a platform to educate and raise awareness about sustainability, possibly leading to behaviour change beyond the event (Schmidt, 2006; UN, 2022; UNFCCC, 2015). Signalling sustainability can help sport event organisers gain legitimacy (Newig et al., 2013), which is particularly relevant because of the challenges of implementing sustainability-related commitments (e.g. Boykoff, 2021; Gaffney, 2013;

Li, 2021; Müller, 2015; Schmidt, 2006). In that vein, signalling sustainability may influence the public's readiness to support hosting events (Laing & Frost, 2010).

Prior research at the nexus of sport event and sustainability communication focused on online communication, suggesting that event messages were mainly focused on energy and water initiatives (Trendafilova et al., 2021). The main objective of event organisers was to generate environmental awareness and compliance among spectators. Trail and McCullough (2021) explored event promotional activities through awareness, emphasising the importance of understanding the attitudes toward a campaign. They found that attitudes can predict behaviour intentions and affect one's decision-making concerning sustainability initiatives. This has important implications for designing and marketing sustainability campaigns considering how the message is framed, structured and delivered to the targeted audience. Likewise, it is important to involve different stakeholders in the design of such campaigns as sustainability is a broad, elusive, vague and malleable concept (Kemp & Martens, 2007; Marshall & Toffel, 2005; Mensah, 2019) and various lay groups may understand and define the concept differently (McDonagh et al., 2020; McDonald & Oates, 2006; Perey, 2015; Reid et al., 2009). Yet, there are limited resources for event organisers that would enable them to engage stakeholders proficiently and enhance their attitudes towards sustainability (Trail & McCullough, 2021). Therefore, we aim to understand sport event spectators' perspectives on sustainability initiatives. Specifically, we explore their interpretations of sustainable signalling as well as how their definitions of sustainability fit with the interpretation of those signals. In doing so, we also sought to consider the characteristics of highly observable signals of sustainability.

6.2. Literature Review and Theoretical Background

Defining Sustainability

In its basic form, sustainability refers to sustaining or perpetuating a system for a long time (Costanza & Patten, 1995). Sustainable development "meets the needs of current generations without compromising the ability of future generation to meet their own needs" (World Commission on Environment and Development, 1987, p. 23). The United Nations (UN) argued that environmental, developmental and poverty issues must be addressed simultaneously in a mutually supportive and complementary fashion (Robinson, 2004), often called the triple bottom line. Sustainability can also be viewed through fundamental principles (Waas et al., 2011): (1) it is a construct of societal and normative nature; (2) it implies justice or fairness; (3) environmental and developmental matters need a holistic address; and (4) it is a dynamic process and not an end state.

Although the UN's account is prominent, it has been criticised for its anthropocentrism and vagueness that allowed a proliferation of definitions and conceptualisations (Kemp & Martens, 2007; Marshall & Toffel, 2005). It is claimed to mean "different things to so many different people and organisations" (Robinson, 2004, p. 373). The danger is that the plurality of interpretations may impede its potential to drive change (Perey, 2015; Waas et al., 2011), including its potential to communicate sustainability to broader audiences (Brand, 2011).

Perspectives on Sustainability

Implicit theories, schemas or lay beliefs are common sense beliefs, and notions lay people use in their sense-making of the environment. The lay beliefs often differ from explicit theories or formal ideas the experts hold (Furnham, 1988). Sustainability is an ambiguous and context-dependent notion, enabling many conceptualisations by experts (Whyte & Lamberton, 2020) and laypeople (Perey, 2015). Local and social practices and a sense of community influence sustainability

interpretations and enactment. Accordingly, the discrepancy between the interpretations of laypeople and experts (McDonagh et al., 2020) warrants consideration of both perspectives.

Research has shown that laypeople in various educational contexts understand sustainability primarily as longevity, keeping something running, or human, material or other resource use (Parkin Hughes, 2017; Reid & Petocz, 2006; Reid et al., 2009). Students' understanding of sustainability was limited to concepts mainly related to environmental impacts, with minimal knowledge of the triple bottom line, integrated, and interrelational aspects of sustainability (Hales & Jennings, 2017; Parkin Hughes, 2017; Walshe, 2008). The primary emphasis of consumer research has been on the environmental aspect of sustainability. This, combined with the media's keen interest in environmental issues, has likely led to the belief that sustainability solely revolves around the environment (Simpson & Radford, 2012). Studies showed that consumers often do not understand the sustainability characteristics of products or services (McDonald & Oates, 2006; Tölkes, 2018, 2020) and their understanding heavily involves environmental components, including resources and waste (Hill & Lee, 2012; Roy et al., 2015; Simpson & Radford, 2012). Furthermore, consumers could not articulate precisely what behaviours would be considered sustainable (Roy et al., 2015).

Promoting Sustainability through (Sport) Events

Some authors emphasised the need to address the sustainability of events beyond environmental issues broadening out the perspective to reflect triple bottom line considerations (Getz, 2017; Mair & Smith, 2021; Pernecky, 2013). Mair and Smith (2022) invited to consider the role of events in social, economic and environmental development of the host places. In that vein, the focus on establishing the sustainability of sport events should be supplemented with communication

aspects for education and promotion of sustainability to and through various stakeholder groups (e.g. Collins et al., 2009; Müller et al., 2021; Trendafilova et al., 2022).

Some authors recognised the potential of events to promote sustainability to event visitors and spectators (Laing & Frost, 2010; Mair & Laing, 2013; Tölkes & Butzmann, 2018; Wong et al., 2021). Examining sport events specifically, Han et al. (2015) contrasted spectators' pro-environmental behaviour at the event and at home. Findings showed that attendees have more pro-environmental behaviours in their homes than at the event. Furthermore, this relationship was moderated by their perception of event's environmental responsibility. Du Preez and Heath (2016) highlighted the role of the social and physical environments in intention to behave pro-environmentally. They concluded that the identification with the social context at the sport event may be beneficial to the intention to behave pro-environmentally and that the spectators attached to the location are more likely to value and support the environmental management efforts of event organisers. Researchers have examined environmental sustainability marketing campaigns focused towards sport fans/spectators by leveraging their identification with the team (e.g. Casper et al., 2014; Casper et al., 2017; McCullough & Kellison, 2016). Aiming to guide sport event managers in implementing and evaluating sport sustainability campaigns, Trail and McCullough have developed and tested behavioural models for fans/participants (Trail, 2015, 2016; Trail & McCullough, 2017). Their models emphasised the awareness stage which is highly dependent upon culture and context, and the external activation of the campaign. Trail and McCullough's (2021) longitudinal study illustrated that campaign awareness, amount of information, and satisfaction with communications in sustainability campaigns were directly related to spectators' attitudes and behaviour. As demonstrated, previous research has foregrounded the

importance of sustainability event communication for spectators'(environmentally) sustainable intentions and behaviours. Thus, we use signalling theory to frame our research suggested appropriate for studying ways organisations communicate their sustainability engagement to stakeholder groups (Connelly et al., 2011).

Signalling Theory

Signalling theory explores how individuals, organisations, and other entities communicate characteristics, qualities, or intentions to others when two parties have different information about a common interest, i.e. information asymmetry (Connelly et al., 2011; Spence, 1973). Primarily, the focus on resolving asymmetries of "latent and unobservable quality" (Connelly et al., 2011, p. 42) is at the core of signalling. Fundamental tenets of the signalling theory relevant to this study include a signaller, a signal, and a receiver (Connelly et al., 2011). As an insider, the signaller has privileged information about underlying quality of an object of interest delivered to the receiver through signals. Signal delivery depends largely on signal observability, that is, the extent to which the receivers can observe the signal as intended, hence demonstrating an effective signal (Spence, 1973). Conversely, receivers are outsiders with varying interests in the information. The signaller wants to benefit from the receiver, usually by influencing their preference, often over competitors (Connelly et al., 2011); thus, the ability to create an effective signal that influences the receiver's preference is critical.

Receivers and their responses received little attention from signalling theory scholars, and even if so, the receiver has been viewed as a rational decision-maker with unanimous responses to signals (Drover et al., 2018). With that in mind, Drover et al. (2018) employed a cognitive lens to consider the receivers' attention allocation and interpretation. They posited that attention is a function of two ways of processing, top-down or systematic, or bottom-up or heuristic. Receivers with top-down

processing have the endogenous stimulus, whereas stimulus for bottom-up processing is exogenous, meaning that it comes from the environment. A receiver with an endogenous stimulus has a goal in mind and scans their environment for a specific stimulus. When the stimulus is exogenous, it originates in the environment. Signals with low signal observability are more likely to be attended to by top-down receivers than bottom-up receivers. However, high observability signals are expected to be noticed by both processing types (Drover et al., 2018). Both signal observability and personal experiences, knowledge and beliefs play a role in processing and interpreting signals. Receivers' beliefs, for instance, structure the experiences and determine what information the receivers will recall from their memory (Taylor & Crocker, 2022).

The literature has started to address the communication of sustainability to spectators using quantitative research designs and focusing on environmental sustainability initiatives. These findings warrant a more in-depth inquiry into how spectators experience and interpret sustainability at a sport event. Accounting for contextual factors through qualitative research design will offer in-depth information to inform event organisers on how to signal their sustainability commitment. We differentiate between top-down perspective of a first author, and the bottom-up perspectives of study participants assuming the average spectator at the sport event is attending the event for reasons other than to intentionally observe sustainability signals. Also, we account for the fact that the attention to and interpretation of signals depends on the beliefs people hold that give meaning and interpretation frame to their environments (Taylor & Crocker, 2022). Therefore, this study addresses the following research questions:

(1) What event-related signals do spectators at a sport event interpret as sustainable according to their bottom-up and top-down perspectives?

(2) How do the spectators' lay beliefs about sustainability align with how they interpret sustainability signals at a sport event?

(3) What are the characteristics of highly observable sustainability signals at a sport event?

6.3. Methodology

Context and Research Design

European Championships Management Sàrl (ECM) merged the European Championships of several sports into the same event (ECM, 2022). The European Championships 2022 took place in Munich, Germany, embracing the values of unity, diversity, inspiration, longevity and sustainability (ECM, 2022). The Local Organising Committee (LOC) issued a sustainability strategy outlining focus areas: the reuse of sport facilities and equipment, carbon-neutral transport and mobility, waste and littering, impact on grassroots and professional sport, inclusion and accessibility and local value creation. The event was expected to gather around 4,700 athletes in 176 medal events and, parallel to sporting competition, offer a festival experience for visitors (LOC European Championships Munich 2022, 2021). With this in mind, the event presented itself as an appropriate setting for studying sustainability in the sport context.

We employed a qualitative single case study design where the emphasis was not on the case itself, but rather the case was instrumental to providing insights into responses from the spectators (Stake, 2005). Our approach was based on the works of Stake (1995) and Merriam (1998) aligned with the constructivist paradigm (Yazan, 2015). It allowed us to highlight multiple perspectives on the case, which is valuable, taking that sustainability means different things to different people (White, 2013), its meaning is contextual must first be discovered (Porter, 2008). Hence, we used case

study to illuminate complex phenomena directly in its context to enable holistic analysis (Tight, 2022). The depth of information about a case rests on the triangulation of the data collection, where multiple data points yield a rich account of the studied phenomenon (Merriam, 1998).

Data Collection

For this study, we used several methods to collect the data:

Document and social media analysis. Prior to the event, we consulted the official sustainability strategy of the event. Based on the strategy, we defined a broad observation guide to focus the participant observation. Although the observation guide served as guidance, the researcher observed the environment also through her view of sustainability. Likewise, we analysed the event's relevant social media accounts, including Instagram, YouTube, Facebook and the official newsletter.

Participant observation. The first author acted as the participant observer, engaging in social situations appropriate for the setting with a dual observer role (Spradley, 1980). Participant observation enables gaining "insights concerning the behaviour, motivations, attitudes and perceptions of people within the culture in question" (Jaimangal-Jones, 2014, p. 42) and has been suggested as a go-to method for event-related research (Jaimangal-Jones, 2014; Mackellar, 2013). The first author attended multiple sporting and cultural events during the EC2022, assuming the role of spectator, festival visitor or participant in a 10k race for the public. She drafted field notes daily that facilitated the reflective practice of features often taken for granted to create a comprehensible account of otherwise hectic social situations (Emerson et al., 2011).

Semi-structured and informal interviews. During the event, we engaged in informal discussions with the event's visitors and representatives of the sponsoring brands, volunteers, entertainers or members of national delegations. After the event,

we interviewed 12 spectators in German who resided in Germany (Table 1) throughout September and October 2022. We used a purposive and convenience sampling, asking some interviewees to participate directly at the event, and contacting others using snowballing. Additionally, we interviewed two representatives of the LOC, a communication and a sustainability manager, to better understand the event's sustainability strategy. Semi-structured interviews allowed a link to the signalling theory but left the possibility to probe. Before the interview, the interviewees read the Letter of Information about the study outlining ethical considerations. They verbally consented to the recording of the interview and pseudonymised use of the data.

Table 2

Overview of study participants

Pseudonym	Age	Residence	Attended event/s	Location
Filipa	31	Munich	Road cycling; Triathlon; BMX; Climbing; Roofs festival	City; Olympic Park; Königsplatz
Fabian	34	Munich	Rowing; 10k race; Roofs festival	Regattastrecke Oberschleißheim; Odeonsplatz
Marina	28	Munich	Mountainbike; Roofs festival	Olympic Park
Ivana	26	Munich	Beachvolleyball	Königsplatz
Katharina	25	Munich	Gymnastics; Roofs festival	Olympic Park; Königsplatz
Joseph	26	Munich	Triathlon; Beachvolleyball; Roofs festival	Olympic Park; Königsplatz
Julia	27	Munich	Table tennis; Athletics; Roofs festival	Audi Dome; Olympic Stadium; Olympic Park
Lukas	23	Munich	Gymnastics	Olympic Stadium
Sebastian	28	Munich	Athletics; Mountainbike; Beachvolleyball, Canoe	Olympic Stadium; Odeonsplatz; Königsplatz; Regattastrecke Oberschleißheim
Saskia	25	Mainz	Athletics	Olympic Stadium
Chia-hao	26	Marburg	Beachvolleyball; Roofs festival; Table tennis	Königsplatz; Olympic Park; Audi Dome
Lina	30	Munich	Road cycling; Climbing	City; Königsplatz

Data Analysis

The data analysis and collection ran in parallel until we deemed the interview data held enough information power (Malterud et al., 2016). The first author analysed the data guided by Braun and Clarke's (2006, 2021a) reflective thematic analysis. This approach fully embraced the researcher's background, skills and values in coding and generating themes. That was useful for this study, considering the theoretical distinction between bottom-up and top-down processing of signals and variations in defining sustainability. Interview data were transcribed verbatim and, with fieldnotes, documents and social media posts, managed with MAXQDA.

The analysis started with rereading the data, memoing, and open coding. The coding followed a fluid and organic approach (Braun & Clarke, 2021) and codes were concrete (explicit meaning, reflecting interpreted sustainability signals) and conceptual (abstract concepts, reflecting characteristics of visible signals) aligned with the research questions (Hennink et al., 2017). While coding, we considered a bottom-up and top-down processing dichotomy as outlined in Drover et al. (2018). The first author generated themes that she revisited until the themes gave a coherent and complete representation of the data. In addition to the first author, a researcher focusing on sustainability and strategic management in sport organisations and a Munich resident, the research team consisted of three scholars with expertise in sport events, legacy, and sustainability, among others. The team met several times to discuss the study design and findings. By structuring the data analysis this way, we increased the level of trustworthiness (Guba & Lincoln, 1989; Nowell et al., 2017).

6.4. Findings

We generated four themes (Table 2), which we describe in what follows.

Table 3

Generated themes and subthemes

Themes	Sustainability as environment and efficient resource use		Social and economic signals		Characteristics of highly visible sustainability signals
	Environmental signals				
	Top-down	Bottom-up	Top-down	Bottom-up	
Subthemes/sustainability signals	Facilities		Inclusion		The linkage between event brand and sustainable facilities
	Use of existing facilities	Use of existing facilities	Free entrance to events and festival	Free entrance to events and festival*	
	Use of provisionally built facilities	Use of provisionally built facilities	Volunteers with disabilities	Place of social encounter*	
	Use of facilities for multiple purposes	Use of facilities for multiple purposes	Inclusion-focused promotional stands	Inclusion-focused promotional stands	
			Accessibility of facilities		
			Sign language interpretation		
			Free entrance to events and festival		
			Parasport competitions		
			Paraathlete as ambassador		
		Sustainable transportation		Local value production	
	Multiple events in one place	Multiple events in one place	Local foods and drinks		
	Accessibility by public transport	Accessibility by public transport	Stands for promoting local businesses		
	Accessible by bicycle	Accessible by bicycle			

Sponsor promotion and the usage of sponsor electro cars in logistics

Sponsor promotion and the usage of sponsor electro cars in logistics

Clean environment

Health and sport promotion

Ceremonial moments

Waste separation system

No waste separation system

Free physical activities

Use of competition facilities for visitors*

Digital access to information

Digital access to information

Use of competition facilities for visitors

Shared spaces with athletes*

No excessive marketing props

No excessive marketing props

Unhealthy and/or meat-heavy foods

Sport and parasport offerings for children*

Deposit system

Deposit system

Local sport promotion

Mainly paper food cutlery and plates

Supply chain

Few merchandise products with a sustainability label

Vegetarian food options

Volunteers' equipment with a sustainable label

Sustainably-sourced giveaways

Vegetarian food options

*Mentioned when asked about general impressions from the event but not interpreted within the sustainability framework

Theme 1: Sustainability as Environment and Efficient Resource Use

The theme encompasses spectators' definitions of sustainability. Spectators defined sustainability in various ways, ranging from general accounts such as *responsible use of opportunities we are granted* (Ivana) or *...we only take what we need, and good* (Saskia). Definitions predominantly focused on the environment and several aspects of resource use. As an example, Sebastian illustrates:

So, sustainability for me is that you, um, that you use products or materials, um, that you have, um, somehow consciously, um. And, um, and also being aware of which materials you use and what effects they, um, perhaps had on the environment and other things in the production or in the process until they reach you.

For one of the spectators, Chia-hao, due to his background in environmental engineering, sustainability included triple bottom line and intergenerational equity:

When I hear the word sustainability, um, I immediately think of the definition I learned in my environmental engineering course: the three pillars of sustainability - environment, economy and society - and not depriving future generations of their quality of life. And the saying from a head of tribe in the US: think about those seven generations after you.

With exception of Chia-hao who quoted the triple-bottom line, and Katharina, who referred to the social component the data shows that spectators interpreted sustainability signals regarding the environmental pillar and efficient resource use.

Theme 2: Environmental signals

Theme 2 encompasses environment-related signals the spectators interpreted as sustainable at the event through subthemes focused on facilities, sustainable transportation, clean environment and supply chain considerations.

Facilities. The subtheme describes interpreted event-related sustainability signals regarding existing and provisional facilities. The spectators at the EC2022 regarded the event as sustainable through reference to the facilities created for the Olympic Games in Munich in 1972. The facilities for EC2022 were central to the event's sustainability strategy, and they were either existent, repurposed or temporarily built, which the spectators contrasted to other international sport events:

The (triathlon) course didn't have to be built out of the ground. It was just there and it was used accordingly. (...) it's sustainable from many years of Olympics '72 and the things are still all there. And I think that's really sustainable, because if you look at other sporting events where they create something from scratch and isn't used later... then that's really a huge plus point. (Leni)

Provisional venues were also recognised as potentially consuming energy to build, but this was justified by the possibility of their reuse. Focus on reuse was also put in the context of the public use of event's facilities, highlighting resources rather than possibly other interpretations stemming from the first author, including public health promotion through physical activity or social inclusion:

...theoretically you could have done the public ten-kilometre run two weeks later, and so you just did it in one go on the same day in the afternoon and used the whole infrastructure that was already set up anyway. And that's why I thought it was good. (Fabian)

Sustainable transportation. The subtheme describes interpreted event-related sustainability signals concerning the possibility of reaching the events easily and by using travel means that do not require large amounts of CO₂ output. It also includes the reference to free transportation provided with the event ticket purchase and organisers' use of electro cars for the logistics transport. A focus on public transport in the sustainability strategy was received as a signal by the spectators, albeit an

expected one in Munich. On the free use of public transport for ticket holders, Sebastian commented: *...it's also somehow a classic, because it's also a sustainable aspect, um, that you can also use public transport with your ticket. So that they try to get people to travel by train or bus.*

Events in the city were spread out but always in a location that enabled spectators to arrive by public transport or bicycle. The placement of events centrally was interpreted as a sustainability signal: *...I think the locations of the events were very good in terms of being public transportation accessible. But that's Munich thing usually* (Filipa). From the field notes it is visible there were many cyclists in the Olympic Park during the major events so that the existing bike racks could not support all the bicycles at the premises. This is not surprising in Munich, where the infrastructure makes cycling a comfortable and quick transport option. Leni for instance, used a bicycle to travel at different events:

I rode my bike around the city a lot during the week, because when I went to Königsplatz, I often went to the stadium afterwards, because that's where the evening sessions were, and it was really practical to cycle around.

BMW was a prominent sponsor of the event, with its stand prominently located in the Olympic Park and focused on displaying its commitment to sustainability. Nevertheless, BMW's involvement as a sponsor was somewhat controversial because advertising cars was not interpreted positively for sustainability. Filipa commented that *...I can remember it was not the best brands there because I just remember there being a lot of car brands, uh, advertising...* On the other hand, the usage of BMW electro vehicles for official transportation at the event was interpreted as a signal towards sustainability:

One thing I noticed, though, were the shuttles, which were electric-powered. I was kind of pleased about that. Well, um, the fact that these shuttles are at

least electric, I thought that was somehow sustainable. Ah, and I just noticed that the, um, shuttle bus was from BMW, and I saw quite a lot of BMW.

(Joseph)

Clean environment. The subtheme refers to the event-related sustainability signals that refer to the clean environment achieved through the deliberate actions of the organisers. Positively, spectators noticed that the environment was not cluttered with excessive promotional materials and pompous prompts:

... it wasn't that many posters and unnecessary arrows and so on were put up.

Well, I don't think a lot of unnecessary rubbish was produced in that sense, but rather that the people led you and then really stood there and said: "Okay, that's the way". (Lukas).

The organisers relied on providing information via the event app, social media or QR codes. Spectators also highlighted the efficiency and purpose of the event concept that required no excessive waste or resource use beyond what they interpreted were needed for the event. Instead, a thought-through usage of existing resources was interpreted as sustainable:

...it was just different and less rubbish was produced or (...) it was simpler. So it wasn't so excessive, it was just simple and yet somehow beautiful and elegant, and the places were chosen in such a way that the place alone already had such an impact that you didn't have to install so much or add so much, but that the place alone had an effect. (Fabian)

The topic of waste was prominent in the data, in particular, the absence of separated waste bins, a standard in Munich. Katarina expressed her surprise when she wanted to use the bin: *... there was only one bin, well, only the residual waste bin. I think I wanted to throw away a banana peel and, uh, there was no organic waste bin. I was surprised about that.*

What contributed to the cleaner environment was a deposit system, which the first author and spectators interpreted as a sustainability signal, yet again, a standard for the events in Munich.

Supply chain. The subtheme describes the interpreted event-related sustainability signals generated from the supply chain characteristics of products used at the event or available for purchase. The field notes revealed that the event organisers put effort into sustainable procurement. For instance, the giveaways at the public 10k race, included water distributed in paper or starch cups, or wooden participation medals from “I Feel Woods” sustainable trophies. These details went under the radar with bottom-up processors. Moreover, the event offered their official merchandise products available in the specialised shops. When visiting the shops, for bottom-up processing spectators it was rather difficult to attend to the signal, as evident from the interviews. The author, however, scanned the products very closely and found it sometimes challenging to find information on the origin of the products and their specificities. The exception to this were products made by Macron, a sponsor of the event that marketed their more sustainable clothing. The brand also sponsored volunteer equipment made from eco-certified materials.

Theme 3: Social and Economic Signals

The theme focuses on interpreted event-related signals regarding inclusion, local value production and health and sport promotion.

Inclusion. Data from the interviews reflected the interpretation of several social aspects, but not necessarily explicitly referring to sustainability. For instance, Leni, when referring to events’ accessibility due to their location, also thought about how free events enabled everyone to take part, which should positively affect the sport

promotion. She, however, did not connect sport promotion with sustainability as was the case with the principal author.

... and it's just in the center and accessible for everyone. I think the spectators at the triathlon didn't need a ticket, at the mountain biking either, you could walk by because it's in the open. Um, that's already cool and I think that's how you get people excited about the sport. (Leni)

The social aspects, including services and opportunities for people with disabilities such as the availability of sign language interpreters or an opportunity to volunteer, were not readily interpreted as sustainable. Exceptions are Katharina and Chia-hao, who referred to inclusion when asked to define sustainability. Katharina interpreted sponsors' stands as a signal of event's sustainability efforts, and Chia-hao reported that he explicitly looked for inclusive elements in the event environment, indicating top-down approach: *I noticed barrier-free parking spaces and also, um, barrier-free entrances. And also, a certain wheelchair accessible zone, where you can watch the events. And there were also sign language interpreters for the matches. (Chia-hao)*

EC2022 included some para events, for instance, para canoe. Social media campaign Athletes of 22, where 11 German athletes were followed in preparing for the event, also featured a para-athlete. Integration of the paraevents into the event programme was for the first author a signal towards event's sustainability, yet, the interviewees did not take this aspect into account.

In general, the space in the Olympic Park during the sport events and festival was a place where people of various nationalities, ethnic backgrounds, abilities, ages and roles mingled. The location, free activities, and various types of events facilitated the integrative element of the event. The first author interpreted this as a sustainability signal. The interviewees who expressed their excitement about the

atmosphere and regarded event as a place of encounter did not interpret this as a sustainability signal but rather as a general positive aspect of the event. The event featured the partners' stands promoting various organisations, some of which had a clear social focus, for instance, the initiative Pink Kids, which organised sport events for children whose mothers have breast cancer, or Munich's LGBTQ+ Sport Club, which promotes tolerance and diversity. Spectators with extended definitions of sustainability interpreted their involvement as a sustainability signal, for instance, noting that *...at Königsplatz, I think there were three stands on sustainability and on inclusion. I think there was a stand on, um, equality for the (...) LGBTQ community* (Katharina).

Local value production. The subtheme describes the perceived event-related signals that increase economic local value. An emphasis on local value production was most noticeable through sponsors and partners that promoted small local businesses or offered typical Bavarian foods and drinks. Although at most food stands the information about the origin of products was not readily available, the author interpreted traditional foods and drinks as a sustainability signal towards the local supply chain. Also, Chia-hao interpreted this as an element of economic sustainability:

...and at the food stand. I saw a lot of Paulaner beer, so a local brewery and they, of course, they also offered Coke or international drinks. But yes, already, um, a bit of a contribution to the local economy.

Health and sport promotion. The subtheme encompasses sustainability signals related to sport and physical activity promotion as well as other health-related signals such as nutrition. Spectators and volunteers shared the space with athletes in the Olympic Park. This was contrasted to other sport events where the athletes are usually separated from the spectators, creating a physical and symbolic social

barrier. At the EC2022, the integrated space was put in the context of sport promotion by Marina, who was uncertain if this aspect can be described as sustainable:

What I also liked was that, um, a lot of the athletes passed us after the race. So it was quasi so open. (...) Well, I don't know to what extent I would describe it as sustainable, but you had the feeling that you were more on the same level and not as isolated as it was for example, in football. So, that makes the athletes more human and that would motivate me to identify with them or something like that. (...) When I think about it now, if I were a 10-year-old there.

Furthermore, spectators could compete in the various sports in the sport competition for the spectators or a community run. Yet, this was interpreted as a signal towards sustainability only by the author. These physical activity and sport offerings were meant to stimulate people to be more physically active during the event and hopefully beyond. Besides that, most of the food and drinks offerings were typical fast food in line with the Bavarian meat-heavy diet, with healthier options as an exception. The author regarded food options as mostly unhealthy and since it was meat-heavy, unsustainable. Spectators noted the meat-heavy offerings as a negative environmental sustainability aspect but did not connect the health aspect of food offerings with sustainability.

Many partners focused on the local sport or physical activity promotion, some with inclusive mandate. Chia-hao reflected on the German Paralympic Committee Youth stand:

Um, yes, we I have seen in the Olympic Park, there was a small event for children. Um, they sat in, um, wheelchairs and there are many barriers on the terrain.

And then they experience what it's like to, um, sit in a wheelchair and overcome all these barriers. Yes, it was quite a good event.

Theme 4: Characteristics of Highly Visible Sustainability Signals

The theme describes an underlying characteristics of visible signals related to event facilities alignment of local sustainability practices with the actions at the event and the leverage of event ceremonial moments.

Linkage between Event Brand and Sustainable Facilities. Using the existing facilities built for the Olympic Games in 1972 was prominent as the first area in the sustainability strategy and integrated into the event's brand. During the event, through promotional materials in Munich as well as media, the organisers built the event brand with constant reference to the Olympic stadium roofs. All promotional materials featured contours of the roofs that reminded the audience of the Olympic legacy strengthened by the official motto of the event: Back to the Roofs. The accompanying festival was named the Roofs Festival. The event also coincided with the 50th-anniversary celebration of the Olympics in Munich in 1972, around which the organisers built the narrative of the synergy of the past and future. The #BackToTheRoofs was an official hashtag of the event and was used prominently in social media posts that alluded to the longevity of facilities. For instance, the event's social media prominently contrasted images from the Olympic Games in 1972 and their usage today, or presenting before, during and after photos of the provisionally built sport venues. Moreover, the Olympic memorial centre erected in the Olympic Park presented the history of the Munich 1972 Olympic Games, highlighting sustainability concerning the facilities.

Alignment of Sustainability Signals with Locally Usual Efforts. The subtheme describes a characteristic that underlines visible signals related to the local context and its usual sustainability-related practices. When interpreting some sustainability

signals, for instance, accessibility to public transport, facilities in the Olympic Park, or deposit system, some spectators added that this was already a norm in Munich: *When I think about it now, I got my cup in the stadium, which you can return with a deposit. But that's been the standard for years now, that you don't get a disposable cup* (Sebastian), or *But that's, uh, Munich thing usually that you don't see a massive parking with hundreds of cars and everyone going there by car* (Filipa). Likewise, where the sustainability effort was not aligned with what they were used to in the local context, this was interpreted as a negative signal. This was the case with waste separation; in Munich, trash bins usually have separate sections for different types of waste. Although the organisers had a comprehensive waste separation plan that was available by scanning the QR code on the trash bins, it took a watchful eye of a top-down processor to notice this detail.

Ceremonial Moments. The theme describes a characteristic of the visible signal related to the ceremonial moments of the event, more specifically, the award ceremony. The medallists received a plant designed to be planted in the Olympic Park called Champions Garden rather than the usual bouquet or stuffed toy. The campaign was prominently featured in the Olympic Park and on social media and perceived as a signal towards sustainability. For instance, Fabian emphasised:

...what I think everyone noticed was that the athletes who were on the podium didn't get bouquets of flowers, but potted plants that could be planted in the athletes' garden or taken home. Um, so not everyone got a bouquet of flowers, which then somehow dried up after a few days and ended up in the bin.

The symbolic plant and the opportunity to plant it in the garden was unusual for the medal ceremony and received a prominent place within the ceremonial aspect of the sporting competition, where the spectators' attention was directed at the award

ceremony. Some spectators recalled the Tokyo 2020 Olympic Games campaign, where the medals were from recycled electronic waste.

6.5. Discussion

With this study, we aimed to understand how spectators at the EC2022 interpret event-related sustainability signals, how their interpretations align with what they consider to be sustainable and to describe the characteristics of observable signals. Our findings showed that with two exceptions, the spectators defined sustainability related to the environmental component, but not other aspects of sustainability. This aligns with the previous literature that studied different groups (Hill & Lee, 2012; Roy et al., 2015; Simpson & Radford, 2012) and the framing of sustainability in the German context (Fischer et al., 2017). Spectators identified sustainability with environmental sustainability, and therefore, interpretations of sustainability signals at the EC2022 emphasised environmental aspects. This is visible when comparing our interpretations encompassing not only many more signals from our perspective of top-down processors but a wider variety of environmental, social and economic signals. This does not necessarily mean that the spectators did not attend to social or economic signals but did not place them under the concept of sustainability, as we show was the case with some social and economic-related signals. Even when they discussed issues such as the using existing facilities which would be economically sustainable, they interpreted this in the form of environmental sustainability signalling of the event.

Against the background that efficient and conscious resource use and reuse were deemed sustainable, spectators regarded facility management as a positive sustainability signal. First, the organisers featured this prominently as a part of the event's brand reminding spectators through multiple communication mediums of the

Olympic Games 1972 and famous Olympic Park Roofs. The Roofs in the Olympic Park are already a well-known feature of Munich, therefore, the association did not have to be newly introduced. Reminding of the signal is in advertising regarded as less complex and demanding than introducing a new one: familiarity with the signal makes it easier to reach the receiver regardless of their attention level (Moriarty, 1983). Second, broader contextual factors may be at play: the event was held in the run-up to the FIFA World Cup in Qatar, which spurred global interest, not least because of the concerns for the sustainability aspects of the event. The World Cup received worldwide criticism, among other issues, that questioned its sustainability related to its facilities with the potential of becoming another example of a white elephant (Meza Talavera et al., 2019). Our interview data corroborated this, as the spectators contrasted EC2022 with the World Cup and other mega sport events when elaborating on their responses.

The possibility of public transport and bike usage to get to the event sites and the cleanliness of the environment featured prominently as environmental sustainability signals both in bottom-up and top-down approaches. Again, this can be attributed to the strengthened organisational efforts to highlight this, but an underlying reason might be that reported practices were imminent in the spectating experience. Travelling to the event or using the deposit system for drinks made spectators engage first-hand with some of the elements of organisational sustainability strategy, permitting their interpretation as a sustainability signal. If the signal is linked to a situation in which receivers have to engage with it by directing their concentration or actively participating, this may be an effective way to place sustainability signals (Moriarty, 1983). This explains why spectators interpreted a symbolic plant giveaway as a sustainability signal. The award ceremony is a formal and festive occasion where the attention is usually directed at the medallists. In

contrast, supply chain considerations, albeit not always translated successfully from the sustainability strategy, did not materialise as sustainability signals. This could be because the organisers put less effort into ensuring or communicating a more sustainable merchandise supply chain, so the information was not flashed out, but also because purchasing merchandise is not necessarily a focal part of most spectating experiences.

When it comes to social and economic signals, it is visible from the data analysis that spectators did not interpret these signals as sustainable. However, when discussing the event in general, spectators described their experiences and perceptions at the event related to social sustainability impacts such as facilitating social networks and civic pride or raising awareness about disability or other disadvantaged groups (Misener & Mason, 2006; Schulenkorf et al., 2022; Smith, 2009). In particular, the spectators did not interpret or were unsure about various sport-related sustainability signals such as sport development, inclusion through sport or physical activity and healthy lifestyles promotion that sport organisations traditionally attribute to sport events (Misener et al., 2015). The perception of values of sport and physical activity is mentioned as an enabling factor of sport's contribution to sustainable development (Glibo et al., 2022; Commonwealth Secretariat, 2020). In that sense, it seems that sustainability is a framework that, with its current layman's understanding, does not carry the power necessary for laypeople to grasp all the potential positive impacts of a sport event. This questions the guiding utility of the concept, as it may not be able to synchronise the thinking of various social actors about what is desirable and feasible (Brand, 2000). Importantly, this may present an issue when non-experts evaluate the initiatives if their perspectives are limited only to the environmental component of sustainability, the one in which sport events have the most room for improvement (Müller et al., 2021). Therefore, as the laypeople and

experts' sustainability lenses differ, it may be essential to understand the laypeople's context-specific understanding of the concept (Perey, 2015). This knowledge can serve to adapt the communication strategy of the event and use it when deliberating how to use the term “sustainability” and choosing which sustainability aspects to highlight for positive interpretations. Another admittedly more ambitious approach would be to use the sport event as a co-creation platform to align experts' and laypeople's understanding of sustainability. In this way, various groups could communicate about sustainability to create shared frames and concepts (Newig et al., 2013).

The spectators perceived sponsors' and partners' involvement as an integral part of the event, and accordingly, their involvement signalled an organisational commitment to sustainability. Good signals are intentional (Connelly, Certo, et al., 2011), so partnerships and sponsorships at the event should be understood as a potential sustainability signal indicating the need to align the event's sponsors and partners with its sustainability strategy. Otherwise, there is a danger that the event, due to its choice of sponsors, may be accused of greenwashing (Miller, 2017). In that vein, our findings confirmed previous research on sports event sponsorships, highlighting the need to account for sponsor and partner characteristics when considering stakeholders' responses (Ko et al., 2017).

6.6. Conclusion and Directions for Future Research

With this study, we advanced the understanding of spectators' interpretations of event-related sustainability signals and how they align with what they consider sustainable using signalling theory. We noted differences between our top-down, and spectators' bottom-up processing and defining of sustainability. Our interpretations encompassed a wider variety of environmental, social, and economic signals. The

findings showed that spectators defined sustainability through environmental concerns related to resource use. Aligned with that, they linked sustainability at EC2022 to facility management, accessibility via public transport and bike use, and actions that enabled a clean environment. These signals bore some characteristics, namely, they were shared via multiple media channels because of the integration of facility sustainability in the event brand; they were well-aligned with local practices and expectations; and they leveraged moments where the spectator's concentration was focused on the signals. Social and economic-related signals, however, were less prominent and only explicitly regarded as relevant for sustainability by our top-down view and spectators who included social and economic pillars in their definition of sustainability. In particular, spectators, as opposed to authors, could not place sport-related sustainability signals within the sustainability framework.

The limitations of our work present an opportunity for future research. We focused on interpreting signals, which admittedly first require spectators' attention. Yet, the time has passed from event attendance and the interviews, so spectators may have forgotten certain signals they attended to. Future works could focus on the attention phase of processing sustainability signals using real-time methods such as eye-tracking. Likewise, by using the signalling theory from Drover et al. (2018), researchers could tap into the sustainability evaluation of events by quantifying positive and negative signals and their importance for the assessment. A further aspect that requires research attention is the education and awareness-raising aspect, that is, the question of if and how sustainability signals translate to learnings about various aspects of sustainability and subsequently change behaviour.

Practical Implications

Our work can offer several practice recommendations. First, establish how sustainability is understood in the local context and which practices relevant to the

event are considered a norm. For positive interpretations, organisers may want to try to exceed those already established practices. Likewise, a thoughtful approach to using the term sustainability in communication language is needed. Second, integrate sustainability within the event's mission, vision and values and use the event's branding and multiple media channels to highlight this commitment. Third, analyse what aspects of the spectator experience require the spectator's concentration or engagement and integrate sustainability signals there. Lastly, consider the characteristics and presentations of partners and sponsors at the event, as they can also emit sustainability signals.

7. Conclusions

7.1. Theoretical Contribution

Study 1 aimed to understand experts' perspectives on sport's interaction with sustainable development by mapping the interrelations of the identified categories. The findings emphasise the role of partnerships in fostering peaceful and equitable societies through sport. With its universally shared rules, sport was highlighted as a language-free communication means, aiding diplomatic efforts in resolving disputes between nations and individuals. Furthermore, partnerships were deemed relevant to drive technological innovation by leveraging joint resources and assuming shared responsibility between partners. In the context of technology, the study's findings positioned innovation at the intersection of economic benefits and environmental significance, considering entrepreneurship to deploy this innovation. Moreover, Study 1 highlighted the significance of stakeholder involvement and leadership diversity. The lack of robust and low-quality evidence was recognised as a detrimental factor affecting governance for sustainable development. The findings also reflect the belief experts held that sport can play a role in transforming norms and behaviours through social activism. In that sense, experts highlighted the potential of athletes and influential organisations to raise awareness by leveraging their societal position as role models. The findings suggest that this might only be possible if the sport system is perceived as sustainable by those whose norms it aims to change. The study has also shown that establishing transparency in decision-making is crucial for earning the trust of fans, supporters, and the broader public and that integrity scandals and practices that deviate from the lofty

goals of sport undermine their credibility. The focus on profit, which can result in corruption and match-fixing, presented a challenge, as per findings.

Study 2 aimed to explore the consensus-level strategic priorities for sustainable development from the perspective of decision-makers in organisations responsible for governing international sport and how they cluster within the Framework for Strategic Sustainable Development. Twenty high-priority items were identified and categorised them into four levels of the FSSD: system, success, strategic guidelines, and actions. No item was assigned to the tools level of FSSD, indicating areas where strategic considerations might be lacking. According to the respondents, achieving sustainability requires addressing normative, strategic, and operational aspects. The most pressing is a normative shift where sustainability is embedded within all organisational strategies and actions. Secondly, experts highlighted the strategic, long-term planning of sustainability efforts as opposed to one-off or incidental commitment. Sport events, that is, incorporating sustainability requirements during the bidding phase of sport events were deemed relevant by the experts as an essential sustainability consideration.

Through Study 3, we explain how spectators interpret event-related sustainability signals and how their interpretations align with their understanding of sustainability. The findings demonstrated that spectators predominantly defined sustainability in terms of environmental concerns, particularly concerning the usage of the resources. At EC2022, spectators interpreted sustainability through various environmental-related signals, such as facility management, accessibility through public transportation and bicycles, and initiatives promoting a clean environment. We identified that these signals were disseminated through multiple media channels due to the integration of facility

sustainability within the event's brand, well-aligned with local practices and expectations, and effectively captured spectators' attention. On the other hand, social and economic-related signals played a less prominent role. Unlike the researchers, Spectators struggled to place sustainability signals related to sports within the broader sustainability framework.

7.2. Managerial Contribution

This thesis offers sport practitioners several recommendations. Although both Study 1 and 2 gathered data from international experts, the research question in Study 1 is framed more broadly, making its findings applicable to sport organisations in general. In Study 2, the findings specifically pertain to the sampled organisations, but the recommendations align with general strategic directions for sustainable development. For instance, incorporating sustainability into the mission and vision of an organisation is a recommendation that can be applied to all sport organisations. When making decisions, managers may benefit from a systems thinking approach for analysis and consideration of the environmental, social and economic interactions. In that vein, the systems map we generated in Study 1 can serve as a basis towards more focused and context-specific explorations. To leverage the integrative approach, the systems map can function as a tool for formulating, testing, and implementing various policy options directed towards increasing sustainability for various sport organisations. Also, it can aid the policy integration needed for sustainable development and improve the interaction between sport and other sectors. Concretely, the experts emphasised that by focusing on several mechanisms, sport can strengthen its contribution to sustainable

development through its influence on the economic growth, health and wellbeing, and social inclusion. It can act as a means of communication beyond language and provide visibility to sustainability issues. Governance and integrity issues and safety emerged as important considerations, as well as the environmental issues that need attention in order to make a positive contribution.

Study 2 has shown that sport experts deemed it crucial for organisations to prioritise sustainability. Moreover, any introduced changes should be strategically planned for the long term rather than treated as incidental activities. Sustainability requirements should be integrated into sport events from the initial stages, and event organisers should receive support and expertise in sustainability from their respective sport organisations. The sustainability and legacy of sporting facilities emerged as important considerations when organising sport events, as confirmed by Study 3. The experts who participated in this study emphasised the importance of strategy implementation. It is crucial for managers to act upon policies and measure and evaluate mechanisms to substantiate their claims and foster trust among all stakeholders. While it is challenging to determine the highest priority strategic considerations within the system, success, strategic guidelines, actions, and tools, our research suggests that addressing all categories demonstrates an organisation's holistic commitment to sustainability and recognizes the promotion of sustainable development as a vital managerial responsibility across all levels.

Study 3 provided several practical recommendations for organisers and owners of sport events. Firstly, it is crucial to understand how sustainability is perceived within the local context and identify the practices that are considered the norm for the event.

Moreover, it is essential to carefully consider the use of the term "sustainability" in communication language to ensure it is employed thoughtfully and effectively. Secondly, leveraging the event's branding and utilizing multiple media channels can effectively highlight the commitment to sustainability and raise awareness among participants and attendees. Thirdly, it is important to analyse which aspects of the spectator experience require their attention, and incorporate sustainability signals accordingly. This can enhance spectators' understanding of and engagement with sustainability initiatives during the event. Lastly, it is advisable to assess the characteristics and presentations of event partners and sponsors, as they also have the potential to communicate sustainability signals. By selecting partners and sponsors who align with sustainable practices, the event can further promote sustainability and reinforce its commitment to this cause.

7.3. Limitations and Outlook

Qualitative research approaches allow researcher to go into depth and increase the understanding of the topic of interest. Yet, when compared to more positivist quantitative approaches and their usual markers of quality, the limitations of qualitative approaches are its inability to generate generalisable findings, subjectivity, difficulty in demonstrating the validity and replicating the findings, and its context-specific focus (Lincoln & Guba, 1985). Findings in this thesis are specific to the particular context, time, and participants involved in the study, as well as the researchers involved in interpreting the data. This means that for Studies 1 and 2, even though we tried to recruit a sample as heterogeneous as possible within the purposive sample of decision-makers in sport in

international sport organisations, the findings cannot be generalised. The same is true for the Study 3. However, since they are explorative, our findings can serve as a grounding for research using quantitative methodologies. For instance, to study the effectiveness of the sustainability strategies, future research could use correlational or causational research designs to explore which strategic approaches are the most beneficial to various sustainability aspects in sport organisations.

Social desirability bias is another concern for this type of research. In Study 1 and Study 2 in particular, there is a risk that the study participants expressed what they thought the researcher wanted to hear or that they wanted to present their organisations in a favourable light, thus withholding some of their opinions especially on some more socially unacceptable aspects of the work of their organisations. We tried to counter this by using semi-structured interviewing techniques and probing in places where we deemed there was more than the interviewee was telling. In future studies, it would be beneficial to engage with stakeholders who may not be as directly invested in the organisation's work but can provide a comprehensive perspective, presenting both the positives and negatives, such as athletes or fans. Likewise, other data sources may be used, such as official documents to study the potential policy-implementation gap.

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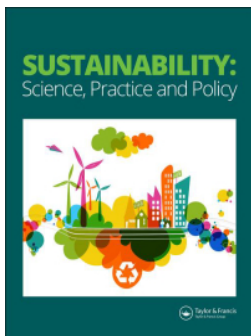
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Appendices

Study 1

Study 2



Understanding the nexus of sustainable development and sport: the systems thinking perspective

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Understanding the nexus of sustainable development and sport: the systems thinking perspective

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ABSTRACT

This study aims to explore how international sport experts make sense of sport's interaction with sustainable development. We adopted the interpretivist lens, combining the viewpoints of identified experts with the systems thinking approach. We conducted 29 semi-structured interviews with higher management decision-makers in international sport organizations and used an inductive approach for theory building to analyze the data and the systems map to show the various interrelations of the categories that were identified. The systems map offers a visualization of perceived causal connections that stem directly from the interviews with the experts. The map contains 58 variables, including nine themes and 49 categories, which are connected via 112 causal links, indicating the interconnected structure. The themes "environment," "social inclusion," "economic growth," and "health and wellbeing" represent outcomes of sport, while "visibility," "safety," "communication means," "educational tools," and "governance and integrity" are mechanisms of how sport can interact with sustainable development. The systems map presents a tool for understanding the complexity of relationships between key variables at play that can help policymakers, practitioners, and researchers when formulating, testing, and implementing various policy options directed toward increasing sustainability of sport stakeholders.

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Introduction

The role of sport as a potential enabler for sustainable development is acknowledged in the United Nations Agenda 2030 (UN 2015). The UN (2015) regards sport as a contributor to development and peace, tolerance and respect, empowering women and young people alongside sport's benefits to health, education, and social inclusion.¹ Sustainable development "meets the needs of current generations without compromising the ability of future generations to meet their own needs" (WCED 1987, 23). The Sustainable Development Goals (SDG) reach their full potential with "mutually reinforcing actions" and "minimizing the trade-offs" (Nilsson, Griggs, and Visbeck 2016, 320). Furthermore, due to the complexity of sustainable development policy setting and implementation planning and the segregation of policy space between actors responsible for different sustainability aspects, "only integrated thinking across all fields can deliver the appropriate practical

elements for a meaningful sustainable outcome" (Skene 2021, 10005).

In previous work, authors have explored sport organizations' policy coherence with the SDGs (e.g., Dai and Menhas 2020; Lindsey and Darby 2019; Moustakas and Işık 2020), reflected on the utility of sport for achieving the SDGs (Morgan, Bush, and McGee 2021), evaluated the sustainability of mega sport events (Müller et al. 2021), and conceptually positioned sport within sustainable development (Bjørnarå et al. 2017; Salvo et al. 2021). Also, the regulative elements of the SDGs have been studied in international sport organizations. For example, Moon, Bayle, and François (2021) outlined five approaches to sustainability that international sport federations have implemented. Santini and Henderson (2021) and Vrontou, Dimitropoulos, and Gaitanakis (2019) focused on environmental sustainability policies and actions and concluded that international sport federations have had relatively low engagement with environmental practices. Morgan, Bush, and

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McGee (2021) provided the state of affairs in 62 Commonwealth Games Associations. The findings indicate that the associations perceived themselves as relevant players when contributing to the SDGs through gender equality, health, and education. Still, their efforts seemed disintegrated and incidental, indicating the need for a more planned and systemic approach.

In the area of Sport for Development and Peace (SDP), Svensson and Woods (2017) found that most organizations were committed to promoting education and life skills. In review articles, several authors identified important limitations of previous SDP studies (e.g., Schulenkorf, Sherry, and Rowe 2016; Whitley, Massey, Camiré, Blom et al. 2019; Whitley, Massey, Camiré, Boutet et al. 2019). Two important limitations were the myopic understanding of SDP programs and the lack of consideration of micro- and macro-level actors. To address SDP programs more broadly and to account for the issue of transfer of individual-level change to societal impact, Massey et al. (2015) used systems thinking embedded into the structural, attitudinal, and transactional model of peacebuilding (Ricigliano 2012). They highlighted that building relationships among more relevant people facilitates change and using the systems-thinking approach avoids isolationist, top-down, and neo-colonial approaches. The authors invited SDP scholars and practitioners to use systems thinking to combat individualistic and linear approaches to SDP toward meaningful broad-level change. Blom et al. (2021) used the same grounding to explore the process of how coaches of SDP programs go through structural, attitudinal, and transactional change through SDP training and curriculum implementation. The findings indicated that the coaches initially changed their attitude toward the concepts relevant for SDP curriculum. As the coaches started to develop relationships with participants and participants engaged with the SDP concepts, transactional change occurred, followed by an indication of structural change in schools and community. Whitley, Massey, and Wilkison (2018, 116) developed the “systems theory of youth development through sport for traumatized and disadvantaged youth.” They demonstrated that the most important system-wide aspects of development include youth embodiment of competitive and physical aspects of activities and a new relationship with their social environment. Moreover, a development-focused environment, which supports the growth of a person rather than an athlete, and a process of positive community development were key considerations in youth development through sport.

In contrast to the previous studies that have often focused on environmental sustainability or

peacebuilding processes, we aim to reveal the collective viewpoints of relevant actors through systems thinking to study the broad role of sport for sustainable development. Using an interpretive stance, we seek to explore how experts in the field understand sport’s interaction with sustainable development by mapping the stated interrelations of the identified categories across SDP as well as traditional grassroots and elite sport. This understanding is relevant for research when generating hypotheses for in-depth inquiries and for practice when identifying potential cause-effect relationships for formulating and implementing strategies for sustainable development.

Literature review

Sustainability and the systems-thinking perspective

Sustainability is both an intermediate and long-term integrative and adaptive process of meeting social, economic, and environmental imperatives from local to global (Kemp, Parto, and Gibson 2005). The challenge is to simultaneously address them to benefit from their positive interactions (Morton, Pencheon, and Squires 2017). Core requirements must include context-specific considerations (Nilsson, Griggs, and Visbeck 2016) and embrace diversity in different ways of governing to respect sustainability principles. Sustainability implementation should be met with precaution due to the complexity of the world and the interdependence of sustainability-pursuing actions. Likewise, the implementation must consider inevitable tradeoffs and strive to minimize them (Nilsson, Griggs, and Visbeck 2016). To deal with this level of complexity, policymakers require tools that ease managing the governance processes (Reynolds et al. 2018; Weinstein, Turner, and Ibáñez 2013).

Systems thinking emerged from systems theory and although it initially reflected the functionalist paradigm, interpretive approaches found their place (Barton et al. 2004). Some authors have distinguished between hard and soft systems thinking, with the former focusing on goal achievement, and the latter focusing on learning (e.g., Bosch et al. 2007). Interpretivism-oriented systems thinking emphasizes holism, inclusiveness, and meaning resulting from the social construction of actors rather than objects with objective existence (Ehrenfeld 2008). With this perspective, sustainable development is socially constructed and based upon subjective organizational realities. In other words, its meaning is “context-dependent and must first be discovered through local and collaborative stakeholder discussions” (Porter 2008, 402).

Functions of systems thinking

The systems-thinking perspective proposes a shift from myopic, analytical approaches to a holistic approach (Gharajedaghi 2011). It addresses complexity through interdependent variables and uses reductionism (deconstructing) as well as constructivism (rebuilding the problem into a whole), sees the problem as not reduced to its elements, and aims to understand problems of all sizes, complexity, and disciplines (Hester and Adams 2017). The systems-thinking perspective assumes that observable events and patterns stem from hidden systemic structures and mental models. Furthermore, systems thinking offers a language of terms that helps to understand complexity (Monat and Gannon 2015), including interconnections, feedback, and self-organization (Williams 2017). Interconnections relate to interconnections of actors at various scales in social, economic, and ecological systems (Williams 2017). Feedback presents “a return on the information about the status of the process” (Monat and Gannon 2015, 20), whereas self-organization refers to the “tendency of a system to develop structures or patterns without the intervention of a designer or central plan” (21). Lastly, systems thinking provides a set of tools for graphical presentation that balances between presenting elements essential for understanding the system and the simplicity needed to understand it (Sterman 2000).

Systems-based approaches are particularly helpful when there is high interconnectedness between actors and sustainability concerns, and when there is a need for adaptive capacity within organizations (Williams et al. 2017), as seen in sports. Here, systems thinking allows for the display of positive and negative outcomes, which helps avoid a myopic view of sustainable development. In the present study, we use systems thinking to understand sport’s perceived interaction with sustainable development by mapping the interrelations of expert-identified categories.

Methodology

Design and data-collection procedure

Expert interviews have been regarded as one of the main qualitative data-gathering techniques for system modeling (Kim and Andersen 2012). To assemble the data for the present study, we used semi-structured systematizing expert interviews (Bogner and Menz 2009). The interviews allowed us to explore experts’ mental models, that is, their interpretive knowledge, consisting of subjective perceptions of reality, viewpoints, or perspectives (Kim and Andersen 2012). Interpretivist knowledge is

often implicit; it can be elicited through abstraction and systematization (Bogner and Menz 2009).

We considered the views of experts in international sport. We defined experts in relation to our research context and their “social representativity” (Bogner and Menz 2009, 50), meaning that they were engaged in societally relevant work in international sport organizations. We purposefully targeted individuals who occupied higher management paid or voluntary decision-making positions, had experience in developing and implementing agendas and policies regarding sustainable development, and were still active at the time when the interviews were conducted. With these inclusion criteria, we aimed to ensure that the experts had the process knowledge obtained through their direct involvement, practical experience, and, most importantly, interpretive knowledge (Bogner and Menz 2009). The organizations’ international character was reflected in their global, continental, or multinational level of operation.

The semi-structured interviews were undertaken between May and December 2020 via online video-communication platforms and were part of a larger research project (Glibo, Misener, and Koenigstorfer 2022). Before the interview, all experts received the interview schedule through email. They provided consent to record the session after they were granted confidentiality. We transcribed the recordings and upon request sent them to the respective experts for validation. Interviews were conducted in English and ranged in length between 20 and 90 minutes. The interview schedule contained three sections: background information on the expert, details on the role of the organization in the context of sustainable development and the SDGs, and positive and detrimental sustainable development-related occurrences in sport.

Experts

Twenty-nine experts engaged with 27 organizations participated in the study (Table 1). We used the typology of International Non-Governmental Sport Organizations (INGSOs) adapted from Geeraert, Alm, and Groll (2014) to categorize the organizations. Twenty-four experts were engaged with INGSOs, particularly sport-governing bodies, sport event-governing bodies, special task bodies, and representative bodies. Four experts were involved with intergovernmental organizations and one expert represented a National Non-Governmental Organization (NGO) included in the study due to its international mandate. Twenty-two organizations operated on a global level, and most participants were males with paid positions. Experts

Table 1. Information on experts.

Pseudonym	Gender	Engagement	Origin	Type of organization	Country of organization's headquarter	Scope
Saga	F	Paid	Europe	INGSO Representative Body	Sweden	Continental/regional
Katherine	F	Paid	Europe	INGSO Representative Body	Switzerland	Global
Marko	M	Voluntary	Europe	INGSO Representative Body	Sweden	Continental/regional
Isaiah	F	Paid	Europe	INGSO Special Task Body	Monaco	Global
Andrea	F	Voluntary	Europe	INGSO Special Task Body	Germany	Global
Kai	M	Paid	Europe	INGSO Special Task Body	Denmark	Global
Jean Pierre	M	Paid	Europe	INGSO Special Task Body	Germany	Global
Vasiliki	F	Paid	Europe	INGSO Special Task Body	Greece	Global
Andrea	F	Paid	Europe	INGSO Special Task Body	Denmark	Global
Bob	M	Paid	Europe	INGSO Special Task Body	Germany	Global
Ana	F	Voluntary	Americas	INGSO Special Task Body	New Zealand	Global
Amalia	F	Voluntary	Europe	INGSO Special Task Body	Switzerland	Global
Elisa	F	Paid	Europe	INGSO Event Governing Body	Switzerland	Global
Ashton	M	Paid	Americas	INGSO Event Governing Body	US	Global
Robert	M	Paid	Europe	INGSO Event Governing Body	Germany	Global
Luca	M	Paid	Europe	INGSO Sport Governing Body	Switzerland	Continental/regional
Vanessa	F	Paid	Oceania	INGSO Sport Governing Body	Ireland	Global
Pierre	M	Paid	Europe	INGSO Sport Governing Body	Hungary	Global
Garvit	M	Paid	Asia	INGSO Sport Governing Body	Switzerland	Global
Jack	M	Paid	Europe	INGSO Sport Governing Body	UK	Global
Jürgen	M	Voluntary	Europe	INGSO Sport Governing Body	Monte Carlo	Global
Leo	M	Paid	Americas	INGSO Sport Governing Body	Switzerland	Global
Obi	M	Paid	Africa	Intergovernmental organization	Nigeria	Continental/regional
Hugo	M	Paid	Europe	Intergovernmental organization	Belgium	Continental/regional
David	M	Paid	Africa	Intergovernmental organization	Cameroon	Continental/regional
Jess	F	Paid	Europe	Intergovernmental organization	UK	Global
Ursula	F	Voluntary	Europe	National NGO with international mandate	Germany	National level with international mandate
Mario	M	Paid	Europe	INGSO Special Task Body	Belgium	Global

F: female; M: male; INGSO: International Non-Governmental Sport Organization; NGO: Non-Governmental Organization.

were engaged with their respective organizations for approximately 9.5 years at the time of the interview with average sport-management experience of approximately 19.7 years.

Data analysis

We used Creswell's (2007) data-analysis spiral and followed an inductive approach for theory building to analyze the data. We determined the analysis unit based on the individual mental maps and proceeded with a process proposed by Eker and Zimmermann (2016) for analyzing purposive text data for systems model-building, although, comparatively, our approach was more interpretive. The MAXQDA Software facilitated the data analysis. A systems map is a standard systems-thinking representation of causal relationships expressed in mental maps. It consists of variables connected by arrows, indicating the causal – positive or negative – relationships between them (Sterman 2000). We produced the systems map using the Vensim PLE Software.

The coding was done as follows. First, we used open coding to identify the subcodes. We identified 221 subcodes, which we later axially coded and aggregated into 49 higher-level categories. Then, from these 49 categories, we further created nine themes to finalize the coding tree representing the outcomes and mechanisms of sustainable development in and through sport. Every theme emerged

from its categories and contained relationships. To develop the systems map, we identified the causal links between the categories that emerged directly from the mental maps of experts (Eker and Zimmermann 2016); the process is documented in the list of relationships in the [Supplementary Material](#) associated with this article. We used a fluid and organic coding approach, that is, we revisited coding until we felt that the coding tree gave a coherent and complete representation of the data (Braun and Clarke 2021). This enabled us to produce the systems map.

Considerations for choosing this coding approach included the characteristics of the experts who participated in the study. Each expert was interviewed individually, and their input was complementary rather than conflicting, so we treated the data on a group level in the initial coding step (Turner, Kim, and Andersen 2013). The interviews were semi-structured, which gave the experts and a researcher a degree of freedom to step outside the interview guide to address issues they felt were relevant.

The data were collected by the first author and analyzed by a research team of two persons. The interpretive lens allowed us to become part of the process as we facilitated interviews and made sense of the data. Consequently, our final map is based on the data, but also on our interpretations (Hatch and Yanow 2003). The principal researcher is a

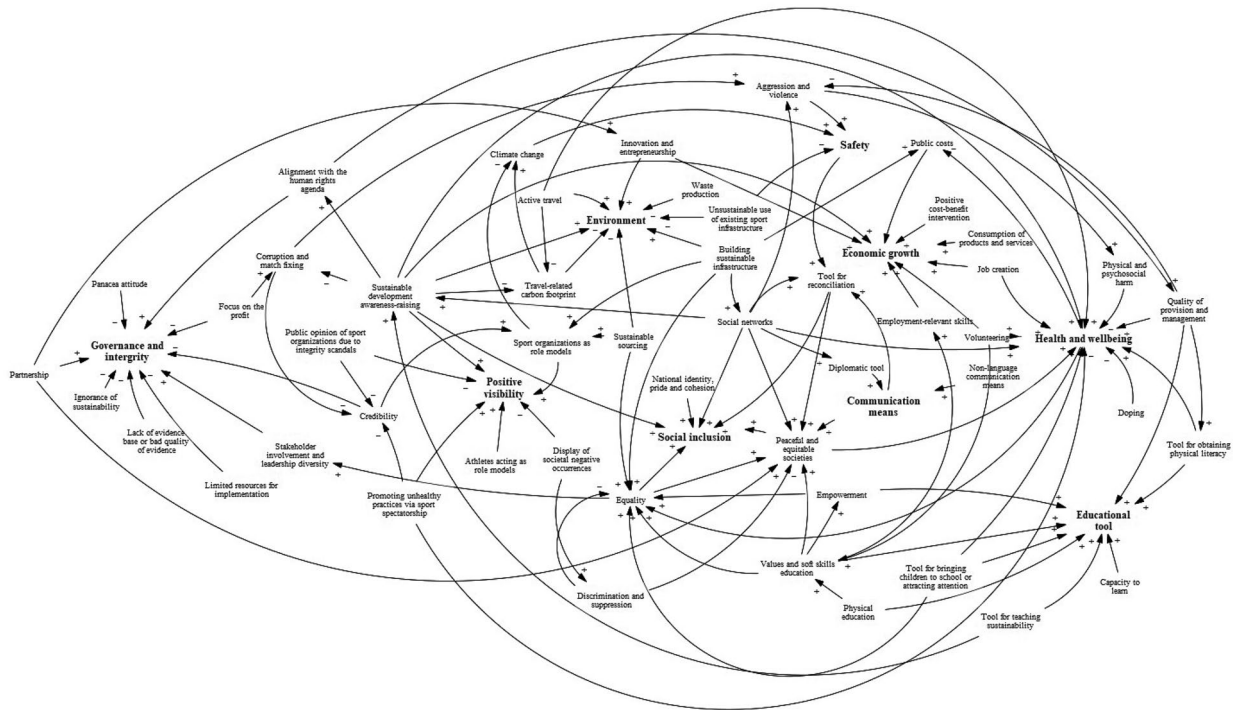


Figure 1. Systems map on the relation between sport and sustainable development.

fourth-year doctoral candidate with six years of practical experience in the international sport and sport for development sectors. The second author, an experienced sport-management scholar well versed in sustainability topics, was a critical friend throughout the phases of study design, data gathering, and data analysis. Through multiple meetings, especially with respect to data analysis, we discussed the coding and themes to arrive at a final systems map (Nowell et al. 2017).

Findings

The systems map (Figure 1) contains nine themes and 49 categories connected via 112 causal links. Sample statements for all categories and links can be found in the [Supplementary Material](#). The themes “environment,” “social inclusion,” “economic growth,” and “health and wellbeing” represent the outcomes of sport. The themes “governance and integrity,” “educational tool,” “visibility,” “safety,” and “communication means” can be considered as mechanisms for sport’s interaction with sustainable development.

Environment

Some experts described sport’s facets of waste production and travel-related carbon footprint, contributing to environmental damage and climate change.² For instance, Ursula highlighted, “I think sport feels the pressure especially regarding environment and climate change because sport has a lot of traveling,

flying everywhere.” By contrast, some experts emphasized positive aspects (e.g., active travel). For instance, Sebastien noted that “there are lots of initiatives, anti-littering, constructing sport infrastructure that is positive. So, for me, this is the future, and with all this active mobility like [backcountry] skiing and cycling and walking we see...all of those CO₂ [carbon-dioxide]-free modes of transport that can contribute to a climate-friendly approach.”

Several of our respondents believed that building sustainable sport infrastructure could decrease the negative environmental impact of sport or reduce safety concerns. Some experts emphasized that constructing sustainable infrastructure could positively interact with the role-model perception of sport organizations, while it might at the same time increase public costs. There was also in the minds of some respondents the idea that they could facilitate the building of social networks and reduce inequality by providing a place to practice sport to almost everyone interested in finding such a place. For example, Saga said, “sustainable cities and communities are also related to how infrastructure has been built, whether it is functional and designed as part of the overall cities and of course sport can bring people together...Meeting at sport events, bring them to the clubs and streets, so that’s a way of strengthening communities.” Moreover, some experts believed that sustainable sourcing could be positively linked to the environment, contribute to sport organizations’ role-model function, and reduce inequalities along the supply chains.

Social inclusion

Several respondents claimed that sport can support social inclusion because of its capacity to reduce inequalities by attracting children to school, its potential for empowerment, its ability to educate via the promotion of values and soft skills, and its role in advancing health and wellbeing. Vanessa highlighted, “of course, sport clubs can work on that by bringing people together, reduce segregation and through the educational value of sport, it can bring people out of marginalization and projects for the homeless...So, there are the indirect sports for development aspects.”

On a broad societal level, the findings reflect the belief that sport can strengthen national identity, pride, and cohesion. Some of the experts argued that establishing social networks could serve as a reconciliation and diplomatic tool that contributes to peaceful and equitable societies, and that networking can positively relate to the awareness-raising aspect of sustainable development, which can increase social inclusion. On the negative side, discrimination and suppression were perceived as potential causes of the increase in societal inequality. For instance, David referred to the history in which sport was used to suppress and dominate the colonized areas in Africa and noted that “we should not be naïve, sport is not only about creating peace and friendship; it also creates conflicts and fights and long-term divisions.”

Economic growth

Some experts believed that sport causes public spending by building sport infrastructure. At the same time, they noted that sport can be a potentially positive cost–benefit intervention because it can increase public health and wellbeing. Several respondents regarded sport as a relevant employment and volunteering sector, potentially improving work-related skills. They appreciated it as a driver of the consumption products and services and provides a setting for innovation and entrepreneurship. The latter can also take a role in preventing environmental damage, as Jack expressed it:

With things like motorsport, even some marine sports like us, and even in the certain sense cycling; I think some of the innovation that we see...The amount of money invested at a top end of our sport can be disseminated for the much wider economy and much wider industry. So, it is like a Formula One type of analogy...If they can make their engines 1% more efficient and in five years this gets applied to all new cars being built, this has got a much bigger impact.

Health and wellbeing

Some experts highlighted that practicing sport can improve health and wellbeing through physical and mental health benefits. However, several respondents mentioned the possibility of adverse outcomes caused by aggression, violence, and doping. Such outcomes can be avoided or reduced by improving governance and the integrity of stakeholders in sport. Saga reflected on the negative aspects and observed “sports injuries are a health problem, or harassment and gender-based sexual violence. Still a lot of things that exist in sport; we have to solve them in sport together with the right partners like governments, police.”

Governance and integrity

Some of the experts emphasized the need for alignment with the human-rights agenda. Implementing agenda-driven good governance practices can positively affect stakeholder involvement and leadership in sport organizations, eventually promoting diversity. The focus on profit, however, several respondents highlighted, could lead to corruption and match-fixing and jeopardize the credibility of sport and its potential uses in awareness-raising about sustainability. Vanessa commented on factors that could hinder sustainable development: “I think the integrity aspect, the corruption in some sports that have put it into kind of black market.” Beliefs and dispositions such as a panacea attitude, which implies that sport can be a solution to all sustainability problems, or ignorance of sustainability were seen to negatively influence the governance and integrity of sport. Further expressed negatives included the lack of an evidence base for sport policy or indications of low quality or insufficient resources for implementing sustainability-enhancing actions.

Educational tool

Respondents saw sport as a potential educational tool for the purpose of sustainable development. Some experts highlighted that practicing sport can teach values and soft skills and may thus, in the long run, contribute to peaceful and equitable societies. They regarded it as a channel and context for empowerment and education about sustainability that could serve as a form of physical literacy and lead to better health and wellbeing. For instance, some respondents drew attention to its ability to attract attention and bring children to school and increase their capacity to learn. They further saw

physical education as an essential part of the educational system in general and a relevant setting for using sport for educational purposes. In this vein, Ana highlighted: “in PE [physical education], you reinforce other elements such as tolerance, fair play, justice, and how to understand, for example, the weather changes...Why the hygiene is important, why we need to hydrate, why we need to eat properly, why we need the whole team to feel okay.”

Visibility

Some experts highlighted that due to the interest that sport creates, sport could provide visibility and raise awareness about sustainable development. This, in turn, they claimed, could contribute to social inclusion, lower travel-related carbon footprint, and improve protection of the environment in general, as well as facilitate alignment with the human-rights agenda. Several respondents emphasized that awareness could be raised via athletes or sport organizations that act as role models through sustainable practices. They found the latter to be particularly true when sustainable sourcing is implemented and when sustainable sport infrastructure is built. Linked to awareness raising on disability, Robert posited:

If you are active, you can change attitude towards disability...We have done some stunning research on people who were at the Paralympic Games in London 2012. One of three people changed their attitude towards disability...We realized that we could really contribute to...social inclusion. What we realized is that aligning with the SDGs we can amplify our message to more people.

Negative aspects include the lack of credibility that undermines public opinion of sport organizations and influences their role to promote sustainable development, according to some experts. Furthermore, they expressed that the promotion of unhealthy practices linked to sport spectatorship and the display of negative societal occurrences, including discriminatory behaviors, are negative influences on sport's role in creating visibility for sustainable development.

Safety

Some experts regarded safety as relevant for sport's role in sustainable development. For example, it has been argued that climate change increases the prevalence of very hot days, which can make physical activity potentially harmful to one's personal health. Also, sport infrastructure can create health

hazards. Aggression and violence sometimes seen in sport, findings highlighted, can be an issue for personal safety, too. Isaiah, for example, stated the following:

At the beginning in the camp, they couldn't have football games, it was impossible. Because through football the refugees got aggressive...Because the psychological being of refugees was so sensitive that this was harming the situation rather than bringing them together or making them feel better.

Communication means

Because it can be practiced without speaking the language of the opponent or teammate, the experts considered sport as a means of communication. Andrea stated that “we are trying to bring in people of different agendas and cultural backgrounds and I think that sport can really be a door opener.” Sport as a communicative tool can work at both individual (personal) and (inter)national levels.

Discussion

The goal of this study has been to increase our understanding of perceived relationships, mechanisms, and outcomes as a basis for transformation in the context of sport and sustainable development. Via expert interviews, we explored several mechanisms that emerged from the data analysis and their interconnections. In what follows, we briefly discuss these findings against the state of the art of the literature.

Theoretical and managerial implications

Partnerships were included in the SDGs as the seventeenth goal. Authors who grounded their work in SDP (e.g., Warner et al. 2020) and explored the policies of international sport organizations (Santini and Henderson 2021) identified partnerships as a driver for sustainable development. More precisely, Moon, Bayle, and François (2021) found that partnerships with NGOs and consultancies can raise the capacity of international sport federations to engage in sustainable development. Our findings place partnerships as an element of achieving peaceful and equitable societies through sport. As a foundation for sustainable development, peace needs international cooperation to set standard norms based on dialogue as well as excluding hierarchy and authority between partners (Glasbergen 2007; Sachs et al. 2019). According to our findings, sport, with its universally shared rules, could facilitate resolution of countries' disputes

through diplomatic efforts and act as a non-language means of communication between individuals. The examples of international sport diplomacy have been seen through “ping-pong diplomacy,” but also on the individual level in specifically designed sport programs that enable reconciliation. Moreover, partnerships in sport can support technological innovation. These are underpinned by joint resource commitment and responsibility that can be commercial and employ market mechanisms to promote more sustainable practices (Glasbergen 2007).

Stakeholder involvement and leadership diversity emerged as relevant factors in the present study. The need for more stakeholder involvement problematizes the evidence on international sport organizations’ limited engagement with the public (Santini and Henderson 2021). In sustainable development efforts, stakeholder engagement is essential because sustainability cannot be designed and imposed top-down (Kuenkel et al. 2021; Sachs et al. 2019). Further, stakeholder engagement is required to create trust and cohesion and to reinforce network connections to foster the collective action that facilitates a sense of ownership (Kuenkel et al. 2021). Hence, there is a need to create governance that supports dialogue and consultation to address different interests, including planetary health (Kuenkel 2019). Stakeholder engagement must also include diversity considerations as a source of learning and a “resource base for adaptation and reorganization” (Kemp, Parto, and Gibson 2005, 15). The lack of leadership diversity in sport organizations has been reported (Geeraert, Alm, and Groll 2014) and leadership is relevant for the success of SDP interventions where the features of leadership (e.g., supportive leadership) and youth leadership are drivers of success (Whitley, Massey, Camiré, Boutet et al. 2019). Kuenkel et al. (2021, 58) see diversity in “thought, viewpoints, background and experience” as a necessary consideration for creating collective intelligence for governance that is not only representative but able to balance private and shared interests.

The extant literature on sustainable development transformations regards innovation as a crucial sustainability driver (e.g., Kuenkel 2019). The findings of this study place innovation between economic gains and environmental relevance in the context of technology and treat entrepreneurship as a form of its deployment. Schulenkorf, Sherry, and Rowe (2016) identified the latter as an underdeveloped area of inquiry. The debates on innovation for sustainability extend beyond technological remit (Kemp, Parto, and Gibson 2005; Linnér and Wibeck 2021) and the importance of its cross-sectorial transferability (Sachs et al. 2019). Innovation should also be

addressed at the system level to consider “new linkages, new knowledge, different rules and roles and often new organizations” (Kemp, Parto, and Gibson 2005, 22) as well as economic alternatives that steer away from the traditional growth models (Kuenkel 2019). According to the experts interviewed for this study, innovation and entrepreneurship are related to partnerships and meaningful collaborations that can improve innovative and entrepreneurial efforts and outcomes in sport. In the same vein, Schulenkorf, Sherry, and Rowe (2016) suggested collaborations between economists and other social scientists to explore innovative aspects toward strengthening livelihoods of disadvantaged people through sport.

The absence of a strong evidence base and/or low quality of evidence was identified as a negative influence on governance for sustainable development. Indeed, sustainable development as a continuous learning process requires research-informed decision-making facilitated by shared objectives, criteria, tradeoff rules, and indicators to measure progress toward sustainable development (Kemp, Parto, and Gibson 2005). The quality of the research and the reporting is a concern. This is in line with SDP-focused research that demonstrates that the low rigor and the lack of reported details in published work often make a quality appraisal difficult (Whitley, Massey, Camiré, Blom et al. 2019; Whitley, Massey, Camiré, Boutet et al. 2019). Besides the concern for quality of evidence, Kemp, Parto, and Gibson (2005, 22) warn that “sustainability also needs means of spurring and guiding appropriate action.” Thus, sport-system actors must allocate resources for the implementation of sustainable development practices, which, according to our findings, present an expert-perceived limitation. Santini and Henderson (2021) also found the lack of finances to be a barrier when it comes to environmental sustainability in international sport organizations.

Our findings show that some experts believed that sport can change norms and behaviors through social activism (see also Sachs et al. 2019). By using its societal position, athletes and sport organizations were identified as role models to raise awareness and “explain the ethics of sustainable development, promote grass-roots activism and community participation, shareholder activism and fair-trade consumer movements” (Sachs et al. 2019, 812). This is in line with already-existing initiatives (e.g., UNFCCC 2018, Principle 5). However, evidence on the role-modeling potential of athletes refers mostly to physical activity and sport participation (Mutter and Pawlowski 2014) with some exemptions such as exploration of the potential of athletes and media to support inclusion and sustainable development (Carty et al. 2021) and human rights (Schwab 2018).

Still, research on the influence of sporting role models on the full scope of sustainability (e.g., sustainable consumption) is lacking. Also, there has been a paucity of research into the influence of sport's perceived credibility on its function as a role model. Our findings suggest that this might only be possible if the sport system is perceived as sustainable by those whose norms it aims to change, whereas creating and enabling contexts, in which negative societal occurrences are displayed to broader audiences, may negatively influence sport's power in creating positive social change.

Education through physical education and other forms of sport provision (e.g., SDP; Kidd 2008) is regarded as a setting for learning about sustainability, empowerment, and acquiring values and soft skills (e.g., Cohen 2005). Education aspects of sport provision have already been addressed extensively through both SDP research (e.g., Lyras and Peachey 2011; Schulenkorf, Sherry, and Rowe 2016) and practical work by SDP grassroots organizations (e.g., Svensson and Woods 2017). Morgan, Bush, and McGee (2021) report that Commonwealth Games Associations perceived their efforts toward sustainable development to be closely linked to physical education and sport in school and how it can facilitate learning about SDGs, adoption of physical education in school curricula, and high-quality vocational or higher education of sport professionals. The hope expressed by our experts aligns with previous findings that physical education and SDP programs could support awareness-raising and learning of sustainable behaviors, as well as acquiring life and soft skills to facilitate social inclusion and employability (Baena-Morales et al. 2021; Schulenkorf, Sherry, and Rowe 2016).

Governance and integrity emerged as one of the main ways that the sport system can facilitate sustainable development. A similar finding was reported by Santini and Henderson (2021) in their exploration of environmental policies of international sport federations. Good governance principles such as transparency, representation, and accountability are regarded as a challenge (Geeraert, Alm, and Groll 2014). In the sustainable development literature (e.g., Kemp, Parto, and Gibson 2005), transparency in particular has been emphasized as a crucial element of decision-making for sustainability due to the need for public engagement. As sustainability is an adaptive, context-specific, and multi-dimensional dynamic process, and "surprise is inevitable" (Kemp, Parto, and Gibson 2005, 16), the decisions must be openly communicated. If sport organizations want to increase their sustainability efforts and use their platform to increase public buy-in for sustainability, the increase in transparency of decision-making is

crucial for gaining the trust of fans, supporters, and the wider public. In that regard, the focus on profit leading to corruption and match-fixing surfaces as problematic. It clashes with traditional, noncommercial values of sport (e.g., Olympic values) and leads to the perceived lack of credibility and hence influences public opinion about sport organizations. The credibility is affected by integrity scandals and practices that are not in line with perceived sport goals (e.g., health). Indeed, there are also sport spectatorship cultures that promote unhealthy lifestyles (Piggin et al. 2019).

Most themes that were identified in the present study already feature in published research. For example, several outcomes of sport have already been identified such as the environment, social inclusion, economic growth, and health and wellbeing (e.g., Bailey et al. 2013; Bernard et al. 2021; Coalter 2007; Spaaij 2009). However, the novelty of the current work is reflected in the integration of themes across SDP and traditional grassroots and elite sport – referring to both the practicing of sport and the management of sport. This holistic perspective is essential considering the expanded scope of the SDGs. It can facilitate policy coherence by finding synergies and incoherencies that can enhance or hinder the contribution of sport to sustainable development (Lindsey and Darby 2019). For instance, our findings highlight partnerships as a driver of innovation and entrepreneurship. This does not only concern technological innovations, but also new governance solutions that foster peaceful and equitable societies through sport. Stakeholder trust emerged as both important and problematic: important because stakeholder trust seems to be necessary for the public buy-in of sustainable innovations and problematic because of the lack of good governance in sport organizations. Namely, the lack of transparency can negatively influence public perception and trust in sport organizations and, concurrently, their potential to serve as role models for sustainability. Moreover, low-level evidence in research (i.e., high risk of biases) was perceived as a hindrance to the assessment of sport's impact on sustainable development.

Conclusions

A systems map is inevitably a simplification of a more complex world. The completeness of the systems map was determined by the participating experts and researchers who coded the data. We recruited experts from various organizations and with different gender and geographic backgrounds to account for diversity, but the sample is evidently Europe-centric. Future

research should include experts with balanced geographic or ethnic backgrounds when following the interpretive systems-thinking approach. Also, future research should be more specific in terms of stakeholder differences in mechanisms and outcomes as well as the identification of stakeholder practices (e.g., whether managing sport or practicing sport is under consideration).

Despite these limitations, the findings can be helpful as a starting point toward encouraging other researchers to follow the integrative approach. Caution, however, must be vocalized in terms of the generalization of the map without examining the context-specific circumstances and temporal and spatial considerations (Nilsson, Griggs, and Visbeck 2016). The present study is limited in the sense that we only considered the perspectives of decision-makers in governing international sport organizations. Future studies should also consider other sport actors' opinions such as coaches, club managers, and sport-league representatives. Still, the systems map can help researchers and practitioners understand the sport system regarding its contribution to sustainable development as well as inspire researchers and practitioners about what variables to consider when formulating and testing relationships.

Notes

1. In agreement with the European Sports Charter, we define sport as “all forms of physical activity which, through casual or organized participation, aim at expressing or improving physical fitness and mental well-being, forming relationships or obtaining results in competitions at all levels” (Council of Europe 2021, Article 2).
2. The names mentioned in the text are pseudonyms used to protect the identity of the respondents.

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Article

Strategic Sustainable Development in International Sport Organisations: A Delphi Study

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Abstract: The study aims to explore the consensus-level strategic priorities for sustainable development from the perspective of decision makers in organisations responsible for governing international sport and how they cluster within the Framework for Strategic Sustainable Development. We employed the three-round Delphi study with decision makers from international sport organisations. Based on the 29 semi-structured interviews in the first round, we inductively generated items for questionnaires for the subsequent two rounds. The process yielded 20 items representing strategic priorities determined by 20 experts in the last round. The highest ranked item was normative change, in which sustainability is prioritised throughout all organisational strategies and actions. Moreover, planned efforts that are part of a long-term strategy and embedding sustainability requirements at the bidding phase of sport events were considered with high priority. The 20 items clustered into four out of five levels of the Framework for Strategic Sustainable Development, namely system, success, strategic guidelines and actions. No items could be assigned to the framework's tool level, potentially indicating gaps of strategic consideration. The findings from the Delphi study add a forecasting element to the research and practice of strategic sustainability in the management of sport by revealing consensus-level strategic priorities for the future.

Keywords: sustainability; sport management; Delphi technique; Sustainable Development Goals



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1. Introduction

To date, sport management scholarship that is focused on international sport organisations has not fully explored the managerial perspectives on the future of sustainable development from a holistic standpoint. Although previous empirical studies are valuable in depicting the current state of affairs in international sport governing bodies, they are either limited to past or current strategic considerations (neglecting perspectives on the necessary strategic actions to take in the future) or limited in scope to environmental sustainability (neglecting social and economic aspects). In particular, Morgan et al. [1] examined the perception of Commonwealth Games Association's members regarding their organisation's contribution to the Sustainable Development Goals (SDGs), and a study by Moon et al. [2] assessed international sport federations' sustainability practices. Environmental sustainability policies and actions in international sport federations were a focus in Santini and Henderson's [3] and Vrondou et al.'s [4] studies.

There is a paucity of empirical studies addressing the strategic organisational management of international sport organisations holistically to understand what strategic actions are needed for sustainable development in the future. To fill this gap, this study employed the Delphi technique. We used expert knowledge to build consensus around a complex topic to outline possible future strategic directions [5] in international sport organisations. The findings were aligned with the Framework for Strategic Sustainable Development (FSSD), a theoretical grounding used to explore organisational strategic management from

a holistic perspective [6]. The theoretical lens allows us to put high- and low-priority perceptions of managers into context and identify the potential need for action.

The guiding research questions (RQs) for our contribution were as follows. RQ 1: What strategic responses of international sport organisations are most relevant in increasing international sport organisations' contribution to sustainable development in the near future? RQ 2: How do the strategic responses align with the Framework for Strategic Sustainable Development? Instead of formulating specific hypotheses, the present research is exploratory in nature, in the sense that it aims to uncover near-future relevant sustainable development manoeuvres (of different priorities), as perceived by managers of international sport organisations.

In what follows, we first outline the conceptual framework by defining sustainable development inside and outside sport. After drawing on the literature on organisational strategic sustainability and corporate sustainability management, we reflect on the available literature in the realm of sustainable development and international sport organisations. Next, we describe the methods and present the findings by placing them in the proposed contextual background. We discuss the findings as well as the limitations of the present study and conclude by suggesting future research directions.

2. Literature Review

2.1. Sustainable Development and the Sustainable Development Goals

Sustainable development was offered to solve many pressing social, economic and environmental challenges, such as preserving biodiversity, mitigating climate change and improving the situation in terms of poverty and inequality, human rights violations, illiterate and ill populations [7–10]. Amid the plethora of accounts of sustainable development, the most prominent definition is the one coined by the World Commission on Environment and Development in the so-called Brundtland Report, which outlined sustainable development as the development that enables the present generation to fulfil their needs without jeopardising the ability of the future generations to do the same [11]. Sustainable development is envisioned as a process, a way towards sustainability, which represents the goal of sustainable development [7,12]. In this article, the terms sustainable development and sustainability will be treated synonymously.

The Brundtland definition provided an ethical view of sustainable development through simultaneous attention given to three pillars: the economic, social and environmental [12,13]. Described as a necessary step at a normative level, the definition has been criticised for not enabling the clear operationalisation element needed for guiding the implementation [6,14]. In response to that shortcoming, the United Nations (UN) issued a global plan that aims to guide actions until 2030 using the SDGs [15]. The SDG Agenda offered organisations a frame of reference for their actions directed towards sustainability with “political tail wind” [16] (p. 21) and the alignment of private, public and civil sectors [16].

Sustainable development came into prominence in the international sport arena in 2015, when sport stakeholders were urged to share the responsibility for the planet's health, people and prosperity in the Agenda 2030 through SDGs [15]. The Agenda 2030 highlighted sport's potential as an enabler of development and peace [15] and has been highly influential in guiding international sport policies and actions [17]. The UN emphasised that achieving SDGs implies a transformation of policies and practices [18], where organisational efforts play a pivotal role. However, the main challenge remains to guide organisational changes towards an effective commitment to SD [19,20]. This challenge applies to international sport organisations.

Sport-related scholarship addressed the social and environmental role of various sport organisations through the prism of corporate social responsibility (CSR) [21–23]. Although CSR and sustainable development have interconnections and the concepts are often blurred [24], they address distinctive aspects of the same issue [25]. CSR emphasises the organisational ethical obligation towards its stakeholders, whereas sustainable

development takes a systems perspective by placing the organisation in the wider social and environmental contexts and examining their interdependencies [24–26]. Sport organisations and other organisations using sport for development have made use of the SDG Agenda [1,27,28]. However, the engagement with the SDGs in managerial practice remains limited, as demonstrated in a recent survey of 41 professional sport organisations where only 24% of the surveyed organisations addressed the SDGs in their activities [29].

2.2. Strategic Sustainable Development from the Perspective of the FSSD

Even though the SDGs provide a point of reference for organisational engagement with sustainable development, organisations need to develop their ways of implementation. To date, the most prominent scholarly model outlining how to do this is the FSSD [6,30]. The FSSD has been developed as a guiding framework for strategic sustainable development and comprises four main features: (1) a funnel metaphor that aims to facilitate an understanding of sustainability; (2) a five-level model for differentiating and defining various levels of entities that have a role in sustainability; (3) a sustainability definition expressed via principles; and (4) a procedure aimed at guiding sustainability transitions [6].

The FSSD uses a set of guiding principles more specific than the Brundtland definition but still allows for individual, context-dependent organisational differences. According to the sustainability principles, in a sustainable society, organisations do not subject the nature to increasing (1) the concentrations of substances extracted from the earth's crust; (2) the concentrations of substances produced by society; (3) the degradation of physical means (. . .), and people are not subject to structural obstacles to (4) health; (5) influence (people are not hindered from participating and shaping social systems); (6) competence (people are not hindered from learning and developing competencies); (7) impartiality (people are not exposed to partial treatment, e.g., discrimination); and (8) meaning making (people are not hindered from creating individual or co-creating common meaning) [6].

The FSSD model delineates five levels, starting with the systems level that considers broader fundamental environmental and social contexts and interconnections with actors on various levels, from local to global relevance for the organisation. The success level implies a vision, core values and core purpose aligned with the basic sustainability principles. There are numerous ways organisations can approach sustainability by defining their vision and mission; the FSSD allows for the organisation-specific approach and only requires the alignment with sustainability principles. The strategic guidelines level includes a strategic approach to the vision and mission, whereas the action level comprises the concrete actions needed to carry out the strategies. Lastly, the tools level includes tools needed for making decisions, such as indicators, monitoring and reporting tools.

Drawing on the FSSD, Baumgartner [31] proposed a conceptual framework encompassing three levels of strategic sustainability management: normative, tasked to provide legitimacy to stakeholders and society; strategic, tasked with determining the goals and providing efficiency; and operational, tasked with the successful implementation. The normative sustainability management includes vision and mission statements, policies emerging from the organisations' position towards sustainable development and the organisational culture that aligns with vision and mission [31]. All sustainability activities are based on the normative management level that can take the form of introverted strategy, primarily based on the risk mitigation and imposed legislation; extroverted strategy, seeking to gain approval of external stakeholders; conservative strategy, focused on the clean production and eco-efficiency; and visionary strategy, focusing on sustainability within all organisational aspects [32]. These generic types of strategy express the extent of an organisation's involvement with sustainable development. Only the introverted strategy has no ambition towards contributing to sustainability; all others pursue sustainability in an active rather than reactive manner [31]. Sustainability management also includes determining the contextual factors unique to every organisation before setting the long-term sustainability objectives and planning activities using forecasting and backcasting [6,31]. Further down

the process, the long-term goals are detailed as well as linked to measurements and concrete action points. It is then down to the operational level directly to execute the strategy.

2.3. International Sport Organisations and Strategic Sustainable Development

In sport, international sport governing bodies provide “a framework for developing sustainability policies for elite sports” [33] (p. 7). Gammelsæter and Loland [33] contended that there is a need for policy change that emphasises constraints of the activities, particularly regarding long-distance travel, misuse of facilities and the use of fast fashion and sporting equipment. Moon et al. [2] analysed how the international sport governing bodies strategically approach sustainable development. They outlined five approaches: implementing sustainability pilot events, partnering with non-governmental organisations and consultancies, creating a sustainability committee and launching a comprehensive sustainability strategy with at least one full-time sustainability manager.

Further research has focused on the environmental aspect of sustainable development. Vrondou et al. [4] analysed the environmental aspect of sustainability policies of international sport federations that govern sports directly dependent on the environmental conditions (e.g., sailing, rowing). The authors concluded that the federations kept limited environmental focus, and although the International Olympic Committee emphasised sustainability in its policies, this did not translate to the policy making of the federations. Moreover, the environmental regulation of the events under their jurisdiction hinged mostly on local legislation, implying the reactive rather than proactive sustainability strategy [31]. Similarly, Santini and Henderson [3] examined scholarly literature and online and social media accounts across 32 Summer Olympic sports federations concerning their environmental sustainability. They found that research on environmental sustainability was available for only 5 out of 32 federations, and only 4 had an environmental sustainability strategy. The authors determined the drivers of environmental sustainability to be a strategic choice, partnerships and governance, and strained resources were found to be a barrier. Moreover, most federations did not engage with environmental sustainability on their websites, with nine federations addressing environmental sustainability but, again, without a clear strategy in place, indicating ad hoc and incidental engagement. The non-strategic and piecemeal approach was also found in an exploration of the Commonwealth Games Association’s sustainable development efforts [1] with a conundrum: most of the surveyed organisations regarded themselves as important players in achieving the SDGs. Morgan et al. [1] explored sustainability in all aspects and found that the organisations perceived to contribute to the SDG Agenda primarily through gender equality, health and education.

The scholarly literature on sport and sustainable development not directly related to the international sport organisations has addressed policy options through which sport can contribute to prioritised SDGs [28] as well as governance aspects in general and policy coherence in particular (e.g., Refs [34–36]). The sustainability of mega-sport events received attention (e.g., Refs [37–40]), indicating their relevance to sustainability in sport. In their recent work, Müller et al. [41] developed sustainability indicators to analyse 16 editions of the Olympic Games. The results reveal that none of the Olympic Games scored in the highest category of sustainability. Although much attention has been given to the mega-sport events, other small sport events should also be considered to be relevant [42].

Considering the global urgency towards reaching the SDGs and the potential of international sport organisations to contribute to the SDG Agenda and the void in research assessing future-directed strategic priority setting in these organisations, exploring strategic organisational priorities that would contribute to sustainable development in international sport seems timely and necessary. To partly fill this research gap, the present study aims to uncover the consensus-level strategic priorities for sustainable development from the perspective of decision makers in organisations responsible for governing international sport and explore how they cluster within the FSSD model.

3. Materials and Methods

3.1. Research Design and Procedure

To answer the research questions, we employed the Delphi method, a structured “group communication process (. . .) allowing a group of individuals, as a whole, to deal with a complex problem” [43] (p. 3). We deemed the Delphi method appropriate, as we wanted to explore, identify and prioritise the information that may generate a consensus [44] in the management of sport organisations pertaining to sustainable development. Further, the Delphi approach seemed suitable, as it is often used in strategic management as a tool to outline possible future directions [5]. In contrast to surveys that provide information about what is, Delphi focuses on forecasting and includes information on what could or should be [45]. In addition, unlike other decision-making techniques, such as nominal group technique or interacting group method, the experts participating in the Delphi study do not have to physically be at the same place at the same time and do not have to deal with group pressure and communication issues [5].

The Delphi process is characterised by iterative questionnaires based on the provided input from earlier responses [46] generated through systematised communication with panellists presumed to possess the appropriate expertise in the field of study [47]. The method provides the statistical group response and guarantees the respondents’ anonymity, as the experts do not communicate directly [48]. For the current study, the procedure was as follows: we first outlined the criteria for the panel recruitment, contacted the selected experts and established the panel. Simultaneously, we developed the interview schedule to be used in the first round of the Delphi study. The first round included semi-structured expert interviews, embedded in a larger data collection project [49]. We analysed the interview data and constructed a questionnaire based on the analysis.

Next, we piloted the second-round questionnaire with two experts from the group and amended it according to the feedback received. In the second round, we sent the questionnaire to all experts. After analysing the results, we developed a third questionnaire, which was sent to all experts to obtain the data for the third round.

3.2. Characteristics of the Panel and Recruitment

Panel selection is a crucial consideration in the Delphi method, as the quality of results rests on the opinions of the group of “informed individuals” [50] (p. 1221). We used the purposive sampling technique to identify panellists with “appropriate domain knowledge” [47] (p. 127). We considered the experts’ established “social representativity” [51] (p. 50) as the initial inclusion criteria, which assumed their involvement in international organisations dealing with sport. Further inclusion criteria specified that the experts occupied higher management paid or voluntary decision-making positions within their respective organisations and were familiar with sustainable development, in the sense that they deal with it in their daily work for their organisation. With these minimum requirements, experts provided technical knowledge regarding the management of their respective organisations and the process knowledge on the decision making regarding various facets of sustainable development within their organisations [51].

Due to the multifaceted and broad scope of sustainable development, we paid particular attention to the organisational and geographical heterogeneity of the panel. Heterogeneity is suggested to provide increased reliability and accuracy of judgements because it is presumed that a heterogeneous panel may reduce the risk of error or bias inherent in individual judgements [47]. To address the full scope of the complexity of sustainable development in the management of sport organisations, we recruited experts dealing with sport in either international non-governmental sport organisations (i.e., sport governing bodies, sport event governing bodies, special task bodies or representative bodies; the categorisation was based on Geeraert et al. [52]) or other international intergovernmental or non-governmental organisations with a mandate for sport. Details of the expert panel can be found in Table 1.

Table 1. Background information on the experts.

Characteristic	Number of Experts
Type of Organisation	
INGSO Sport Governing Bodies	7
INGSO Sport Event Governing Bodies	5
INGSO Special Task Bodies	10
INGSO Representative bodies	3
Intergovernmental organisations	3
National NGO with an international mandate	1
Scope	
Global	22
Continental/regional	6
National level with an international mandate	1
Gender	
Male	20
Female	9
Engagement	
Voluntary	6
Paid	23

Notes. INGSO = International non-governmental sport organisation; NGO = Non-governmental organisation.

We started the recruitment process by listing the international sport organisations of interest, followed by the extensive internet search of persons within the organisations relevant to the study. As one of the main difficulties inherent to the studies with experts is their interest and availability, we overcame this barrier by personalised initial contact in which we explained the purpose of the study, why we think the research question is worth answering and why they, in particular, were chosen to participate [53]. In some cases, we also requested to pass on the message to a colleague if they perceived them to be a better fit for the study. Where possible, we requested the endorsement from our professional networks, which facilitated the commitment from some experts.

There is no universally accepted guidance regarding the panel size [54]. Rowe and Wright [47] suggested using between 5 and 20 panellists to strike a balance between the quality and representativeness of data on the one hand, and information overload and data handling issues on the other hand. Considering the latter points and the potential bias resulting from the usual drop-out rate at consecutive rounds [54], we aimed to recruit 30 panellists for the initial round, assuming an attrition rate of 33% during the three rounds of data collection. The recruitment process resulted in a commitment from 29 experts in the first round. Indicative job titles included Secretary-General, Head of Sustainability, President, Vice-Chair, Chair of Education Board, Chief Marketing and Communications Officer and Vice President for Strategy and External Affairs.

3.3. Data Collection

While there is no shared consensus about the optimal number of iterations of rounds, the prevalent opinion is that three rounds are usually enough [47,54]. Accordingly, we organised the data collection in three rounds. Conforming to good practice guidance [55,56], we determined the number of rounds and defined consensus at the onset of the study.

3.4. First Round

To collect the data in the first round, we conducted 29 systematising semi-structured expert interviews. We opted to use semi-structured interviews to gather as much information from the experts as possible and mitigate the attrition risk in consecutive rounds by establishing a rapport with experts. The interviews were undertaken between May and December 2020 using an online video communication platform. All the interviews were recorded with previous explicit approval from the experts and transcribed verbatim. In one case, due to the repeatedly weak internet connection, the expert delivered his answers in writing. The interview schedule included a set of questions on the experts' background

information, the perception of familiarity with sustainable development and the SDG Agenda and an outline of their organisations' efforts towards achieving sustainability. We also inquired about the experts' recommendations regarding what actions are needed to increase sport's contribution to sustainable development.

3.5. Second Round

All statements collected in the first round were presented to experts in a second round of the Delphi study via a web-based survey. The second round took place throughout February and March 2021. All experts from the initial pool were invited to participate in the second round, except two who asked to be excluded from further iterations. Twenty-one experts (72.4%) participated in the second round. Due to the high number of statements, we organised them into eight thematic categories to ease the presentation online: strategy, environment, sponsorship, organisational efforts, targeting, partnering, promotion and awareness. The experts were asked to rate the items according to the perceived importance of sport's potential to maximise positive and/or minimise negative contribution to sustainable development on a five-point rating scale (see Supplementary Material; anchors: 1 = not at all important, 5 = extremely important). The experts were also given an opportunity to provide feedback on the statements. In one case, an expert stated that he did not understand the context of some statements, so we excluded his answers to those statements.

The level of consensus for the second-round data analysis was pre-defined as more than 80% agreement on the five-point rating scale in the top two categories (i.e. 4, very important, and 5, extremely important). Forty-one items reached the defined level of consensus. Against the background of the experienced decrease in participation of experts from round one to two due to time constraints and the tendency of decrease in the quality of the answers towards the end of relatively long questionnaires in Delphi studies [57], we reduced the number of items in the third round further and focused on the 20 items that were rated most important.

3.6. Third Round

We presented the experts with a list of 20 statements with the highest mean in the second round. In particular, we asked them to rank the statements according to how important they perceived them to maximise their positive and/or minimise their negative contribution of sport organisations to sustainable development. Twenty experts (response rate of 95.2% compared to round two; 68.9% compared to round one) participated in the final round in May and June 2021.

3.7. Data Analysis

For the qualitative data analysis of the first round, we used the software MAXQDA to apply Creswell's data analysis spiral [58] as guidance; we repeatedly read the data, memoed and then inductively coded the data. Similar statements were brought together while keeping the meaning where the semantic clarity allowed. Where possible, we used in vivo coding to keep the original wording of the experts. This process resulted in 72 statements.

For the second- and third-round data analyses, we used the Qualtrics software with its built-in descriptive statistics options. With regard to the analysis of the second-round data, we calculated the level of agreement across all the experts by summing up the item-level percentages of ratings of four (very important) and five (extremely important) on a five-point rating scale (see Supplementary Material). The sum of these percentages describes the proportion of experts who believed that the particular item was very or extremely important. Furthermore, we calculated the means and standard deviations for each item. In the third round, we calculated the mean ranks and standard deviations for each of the remaining 20 items.

4. Results

The items generated in the first round and the level of consensus reached in the second round can be seen in the Supplementary Material (Tables S1 and S2).

All of the items that were subjected to the final-round survey were above the consensus level of 80% agreement on the five-point rating scale, indicating a high level of expert agreement in the second round. The results of the final Delphi round are presented in Table 2.

Table 2. Ranking of items in the third round of the Delphi study.

Item	M	SD
1. Strategically prioritise sustainability	2.70	3.30
2. Make lasting and planned rather than one-off and ad hoc effort	3.30	1.45
3. Embed sustainability requirements in the bidding processes for the sport events	4.85	3.97
4. Take actions to implement sustainable policies	5.00	3.22
5. Initiate more sustainability specific and focused actions	5.75	2.23
6. Initiate and support organisational behaviour change	7.15	2.37
7. Take into consideration the legacy and sustainability of sport facilities	7.20	2.06
8. Base sustainability policies on operationalisable and measurable objectives	8.30	3.69
9. Change business operations to more environmentally sustainable	8.75	3.18
10. Follow the principle: "Do what you preach"	9.15	3.64
11. Implement projects in support of gender equality	9.20	2.38
12. Establish a comprehensive, coherent and concerted commitment from all stakeholders	11.60	3.20
13. Introduce safeguarding policies	13.05	3.25
14. Support sport event organisers in sustainable efforts	13.95	2.13
15. Appreciate that sport can influence sustainable development directly and indirectly	15.05	2.31
16. Emphasise sustainability across policies	15.20	2.91
17. Embed sport events in a wider scheme of sustainable development of the host city	16.75	3.05
18. Use competitive sport to advocate for being physically active	17.40	3.20
19. Raise awareness about the potential and achievements of sport in sustainable development in the general population	17.65	2.01
20. Use sport events to raise awareness about sustainable development	18.00	4.28

Notes. SD = Standard deviation; M = Mean rank; see Figure 1 for the assignment to the structure of the Framework for Strategic Sustainable Development.

Next, we clustered the top rated 20 items following the FSSD structure, namely system, success, strategic guidelines, actions and tools [6]. Figure 1 provides an overview of the results.

Two out of the twenty items can be clustered within the system level of the FSSD (see Figure 1; items in blue). The items were the following: (12) *Establish a comprehensive, coherent and concerted commitment from all stakeholders* (mean rank [M] = 11.60, SD = 3.2) and (15) *Appreciate that sport can influence sustainable development directly and indirectly* (M = 15.95, SD = 2.31).

The highest ranked item (1), *Strategically prioritise sustainability* (M = 2.70, SD = 3.30) and item (16), *Emphasise sustainability across policies* (M = 15.20, SD = 2.91) can be clustered under the success level of FSSD. Figure 1 displays these items in the colour green.

The items that we clustered in the strategic guidelines level include (2) *Make lasting and planned rather than one-off and ad hoc efforts* (M = 3.30, SD = 1.45), (4) *Take actions to implement sustainability policies* (M = 5.00, SD = 3.22), (5) *Initiate more sustainability specific and focused actions* (M = 5.75, SD = 2.23), (6) *Initiate and support organisational behaviour change* (M = 7.15, SD = 2.37), (8) *Base sustainability policies on operationalisable and measurable objectives* (M = 8.30; SD = 3.69) and (10) *Follow the principle: "Do what you preach"* (M = 9.15, SD = 3.64). Figure 1 displays these items in the colour red.

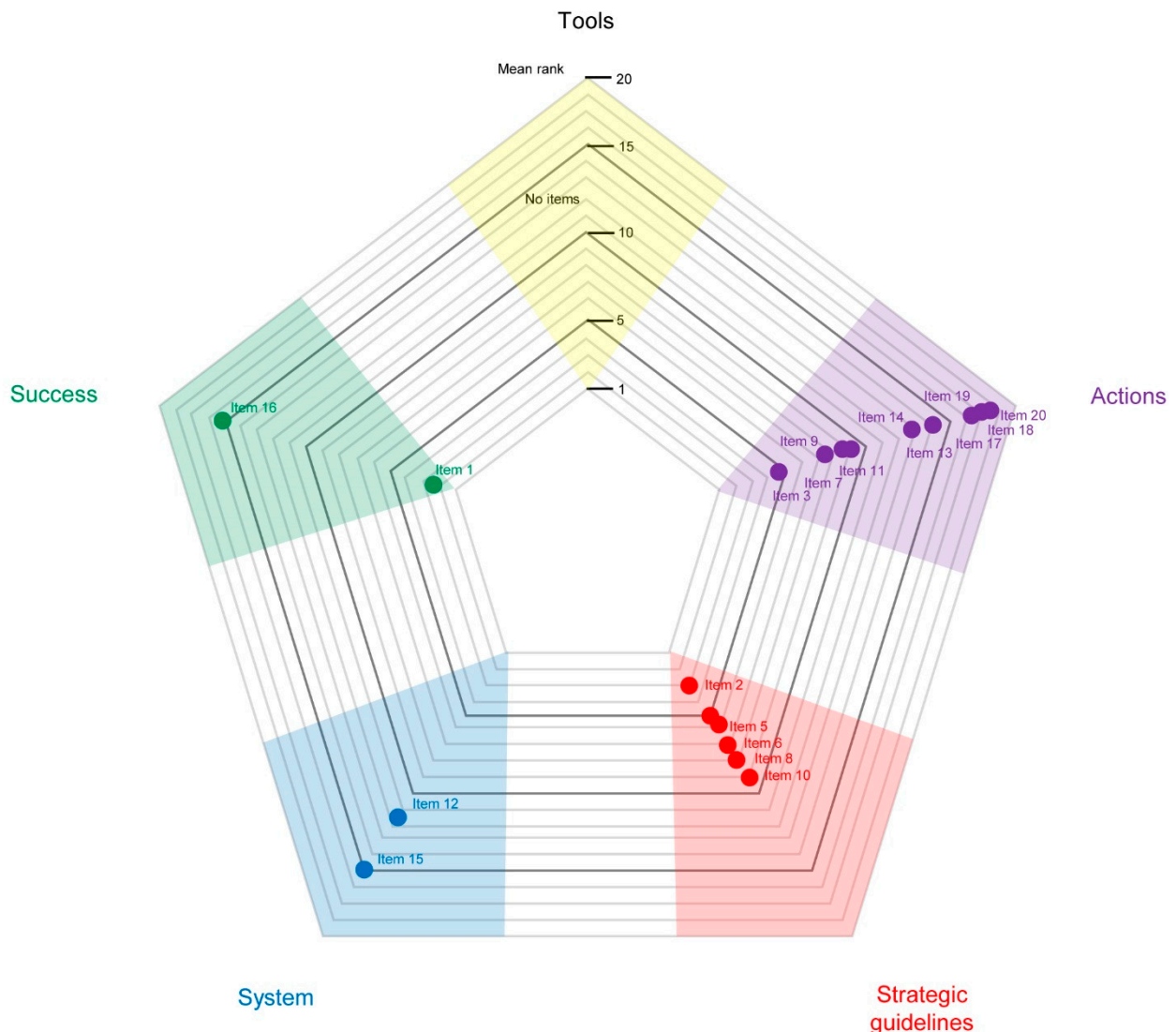


Figure 1. Assignment of the third-round Delphi study items to the structure of the Framework for Strategic Sustainable Development. See Table 2 for the specifications of the items; 1 indicates highest priority (rank), 20 indicates lowest priority (rank) among the 20 items of the final Delphi study round. Mean ranks are based on evaluations of 20 experts from international sport organisations.

The actions level items include items (3) *Embed sustainability requirements in the bidding processes for the sport events* ($M = 4.85$, $SD = 3.97$), (7) *Take into consideration legacy and sustainability of sport facilities* ($M = 7.20$, $SD = 2.06$), (9) *Change business operations to more environmentally sustainable* ($M = 8.75$, $SD = 3.18$), (11) *Implement projects in support of gender equality* ($M = 9.20$, $SD = 2.38$), (13) *Introduce safeguarding policies* ($M = 13.05$, $SD = 3.25$), (14) *Support sport event organisers in sustainable efforts* ($M = 13.95$, $SD = 2.13$), (17) *Embed sport events in a wider scheme of sustainable development of the host city* ($M = 16.75$, $SD = 3.05$), (18) *Use competitive sport to advocate for being physically active* ($M = 17.40$, $SD = 3.20$), (19) *Raise awareness about the potential and achievements of sport in sustainable development in general population* ($M = 17.65$, $SD = 2.01$) and (20) *Use sport events to raise awareness about sustainable development* ($M = 18.00$, $SD = 4.28$). Figure 1 displays these items in the colour purple. Notably, the experts did not propose any items that can be clustered under the tools level of FSSD.

5. Discussion

The purpose of the study was to explore the strategic responses of international sport organisations in order to increase the contribution to sustainable development from the perspective of managers (i.e., experts within the organisations). We aligned the proposed responses with the FSSD levels, indicating different elements of consideration when planning and acting towards sustainable development. The study expands the empirical literature that focused on the status quo in sport organisations regarding their sustainability efforts [1–4] by adding a forecasting element and a holistic perspective. The findings reveal what items managers perceive to be top priority (versus lower priority) to contribute to sustainable development in the near future. In what follows, we discuss the findings according to the structure of the FSSD levels.

5.1. System

The emphasis is on the systems perspective and sport's position with the broader societal and environmental contexts. Item 12 (*Establish a comprehensive, coherent and concerted commitment from all stakeholders*) considers every organisation's specific internal and external stakeholder network management. International sport organisations operate in a multi- and cross-sectoral environment where, because of the diversity of stakeholders and their interests, it can be challenging to establish coherent and concerted efforts towards sustainable development. To avoid a silo approach, Broman and Robert [6] proposed to ground sustainability strategies in the principled definition of sustainability to facilitate shared understanding among stakeholders and enable them to redefine and align the success level considerations. Furthermore, stakeholder management hinges on the transparency and participatory approach to decision making. That approach is needed for increased quality of stakeholder relationships essential for their acceptance of sustainability strategies [14,32].

Through item 15 (*Appreciate that sport can influence sustainable development directly and indirectly*), experts acknowledged the need for complete spectrum analysis of the organisational influence when shaping their sustainability responses. If the aim is to develop a holistic and visionary sustainability approach, it is necessary to integrate sustainable development considerations into all organisational spheres of influence [32], including the less obvious, indirect and unintended effects of organisational actions. Van Zanten and van Tulder [59] highlighted, albeit in a corporate setting, that the organisational direct influence on the SDGs results from organisations' processes and offered goods or services. Those direct interactions can cause indirect and unintended interactions because of the interconnections between the SDGs, and hence, sustainability pillars in general. For example, if a sport organisation's main objective would be to organise an international youth camp with the aim to increase the intercultural understanding through sport, the setting they provide would have to be international. This means that all participants would probably have to travel, causing increased travel-related carbon footprint. Intercultural understanding would be a direct outcome, but that outcome negatively correlates with the indirect environmental impact. For facilitating the systems approach that would consider the full complexity of influence on sustainability in a given organisational context, the usage of systems thinking in research and practice is warranted [60].

5.2. Success

The success level implies the definition of success through vision and mission statements aligned with the sustainability principles. Items (1) *Strategically prioritise sustainability* and (16) *Emphasise sustainability across policies* reflect experts' view of the need for adopting visionary, high-relevance levels of sustainable development [31] in international sport organisations. According to Baumgartner [31], normative management of the visionary sustainability strategy entails the full integration of sustainability in all activities, including the vision, mission and organisational policies, instead of ignoring it or having it as an add-on to existing policies. High placement of Item 1 can mean that the experts perceived an increased need for a normative change towards a visionary sustainability strategy with

sustainability included in the vision statement and across all organisational policies. For sport organisations this would imply a normative shift away from the underlying anthropocentric beliefs [61] where “human interests and happiness are primary values that usually trump contentious environmental and sustainable needs” [62] (p. 62). The success level considerations are particularly decisive for organisational sustainability efforts, as they dictate the appropriate actions and tools that would support the implementation [6,30]. A similar finding emerged from an analysis of environmental policies across international sport federations [3] where the strategic choice was found to be a driver of the environmental sustainability progress.

5.3. Strategic Guidelines

The strategic guidelines level considers how to address the vision strategically [6]. The available literature on the responses of the international sport organisations to SD highlighted that even if the organisations are considering SD, their actions are often unplanned, piecemeal and ad hoc [1,35]. The issue of random actions has already arisen in the sustainability literature that highlighted that sustainable development should have no end; it is a long-term, never-ending process with constant adaptations to emerging challenges [20] that is impossible to achieve through isolated actions [63]. Along those lines, sustaining efforts is of paramount consideration for future sustainability endeavours, as the experts in this study called for lasting and planned engagement, contrasted with current one-off and ad hoc practices. Additionally, through Item 5 (*Initiate more sustainability specific and focused actions*), the experts called for introducing focused and specific actions that should be based on the long-term strategy and shaped as clear, short-term, departmental goals at an operational level [25].

By placing Item 4 (*Take actions to implement sustainability policies*) high on the findings list, experts in this study seem to have recognised the policy implementation gap as a current problem to be addressed. The discrepancy between the commitment and the delivery has already been highlighted in screenings of good governance policies across the international sport organisations [52]. A number of international organisations struggled to implement their policies or, at first glance, seemed to be implementing them, but below the surface, they did not adhere to sufficiently high standards. This is closely aligned with Item 10, that is, a call to “walk the talk” or follow the “do what you preach” principle. Our findings indicate a shared concern about sport organisations’ credibility in the light of, for instance, greenwashing [37] or, more specifically, sponsorships arrangements with companies known for disregarding sustainability [64], to name just a few. Moreover, Swatuk [65] warned about discrepancies between what sport organisations claim regarding sustainability and the actions that they take to be sustainable. However, to address the policy implementation gap in the context of sustainable development, the international sport organisations must first issue sustainability policies, which at this point, only a few did [3]. Consequently, this concern seems relevant for the future but perhaps somewhat premature at present.

Item 6 regarded the need for organisational behaviour change in the light of sustainability. The nexus of organisational behaviour change and sustainability has been primarily addressed at the macro level [66], including the present study. However, as Cooper et al. [66] underscored, sustainability management calls for explorations at the behavioural micro level due to its potential to drive sustainable decision making and actions. By including the micro perspectives in scholarly discussions on sport organisations and sustainability, academics can gain insights into antecedents of sustainability actions in international sport organisations. This is particularly relevant because the change is not necessarily initiated at the very top management structures but can also come from lower-level leadership [14]. In an applied setting, our findings show that individuals active within the international sport organisations may have a relevant role in driving the change towards more sustainable international sport.

Through Item 8, the experts in the current study raised the issue of operationalisation, that is, allocating meaning to sustainable development by translating it to a set of objectives in a given context [67]. The SDG Agenda is one example of an operationalised view of sustainable development; however, as it is intended for the national level, it can be used as a reference but still needs to be translated to an organisational level. As international sport organisations make up a group of heterogeneous organisations with their unique contexts, they should operationalise sustainable development within their organisational setting and make it testable [14]. The experts in our study underlined that the assessment is a relevant consideration for the decision-making strategy, that is, setting the objectives. The argument is in line with the literature that regards assessment as a critical consideration for generating information needed to direct the decision making; it is a mechanism for operationalisation, learning and structuring the complexity inherent in SD [67].

5.4. Actions

The actions level consists of concrete prioritised actions in line with all previous levels. The items in this level include more specific actions perceived by the experts as needed to advance sustainable development in international sport organisations.

The first group of recommendations (Items 3, 14 and 17) refers to actions that deal with how international sport organisations manage the sport events. According to the experts in this study, the primary consideration should be the inclusion of sustainability requirements in the bidding process. This very same measure was proposed in the Agenda 2020 as means to improve the Olympic Games' environmental sustainability and presents one of the critical determinants of what Samuel and Stubbs [68] label green legacies. However, research has shown that requirements for the bid do not suffice to ameliorate the environmental sustainability of the sport events [39]. The reason for this lies in the event owners' lack of control over event organisers to prevent shirking [39,69].

The experts in this study proposed that both the legacy of the sport facilities and the sustainability should be considered when discussing the sustainability of sport events. Although the terms legacy and sustainability overlap and tend to be confused, as per the experts in this study, sport event organisers should consider both. To distinguish them, Preuss [70] argued that legacy is expected to give impetus to new opportunities from the initial activity, whereas sustainability does not imply this. Further, legacy can create negative value and include individual-level impact, while sustainability is discussed positively and in local and global remits. Sustainability suggests the balance between three pillars, whereas this is not a requirement for legacy [70]. The recommendation from the Delphi panel to broaden the scope of considerations is consequently connected to a plethora of challenges, such as issuing strategies and tools to reduce the consumption of resources, capacity building, sourcing sustainable products and services, as well as measurement and evaluation [71] while making sure positive value is produced in the long term after the event [72,73].

The relevance of Item 17 (*Embed sport events in a wider scheme of sustainable development of the host city*) can be explained by highlighting that the "pursuit of sustainability hinges on integration" [20] (p. 14). The integration here refers not only to the three pillars of sustainable development but also to scales, from global to local, and time, from intermediate to long-term integration [20]. Hence, the recommendation to integrate sport events into the sustainable development of the host is grounded in the sustainability debates. In particular, organising events that do not consider the long-term strategy of the local environment in which they take place is a "risky endeavour" [74] (p. 16) for the sustainability and legacy of the event in question.

Item 9 refers to the operational management considerations, including but not limited to logistics, production, maintenance and marketing [31]. Whatever the organisational remit is, operational management is developed to support the strategic goals and should be developed in terms of its efficiency but also in terms of capacity to support innovation as a standard practice for sustainability [14]. An integrated approach to sustainability

considers sustainability in every aspect of an organisation's activities, processes and routines [14]. Additionally, as Baumgartner and Rauter [14] pointed out, the operational level must include the non-economic issues of sustainability, usually not considered standard business administration issues. This includes enhancing employees' capabilities in sustainable development and experience exchange between the operational, strategic and normative levels.

Implementing the projects directed at gender equality (11) highlights two issues. First, gender inequality, including sport participation, coaching, leadership, media coverage and gender-based violence, is still a concern in sport [75]. This indicates that the principles of the FSSD, namely influence and impartiality, are not entirely included as the norm at the success level of international sport organisations. This is despite gender inequality having its own SDG 5, reflecting discussions about diversity as a "source of learning and a resource base for adaptation and reorganisation" [20] (p. 15) needed for sustainable development. Secondly, the emphasis on the implementation is indicative of the policy implementation gap [75,76]. Experts did not provide further information on how this should be achieved; yet, the findings indicate that achieving gender equality requires action, rather than more policies.

Item 13 is grounded in the sustainability principle of health; namely, sustainable development requires people not to be subjected to structural obstacles to health [6]. Hence, through safeguarding measures, international sport organisations can support sustainable development by preventing harm to all participants, especially children (one of the most vulnerable groups). Global initiatives in that direction have preliminarily shown effectiveness [77]. Still, our findings suggest the need for further issue and implementation of the safeguarding policies to account for one of the basic sustainability principles.

Finally, the last three items refer to sport's potential to reach many people, making it reasonable to claim that sport is a relevant player in sustainability [62]. The idea behind Items 18 and 20 is to use the allure and unique position athletes and teams have with their fans [78] to act as social activists to change the norms and behaviours of people [79]. The research on the effects of sport events (and players competing at these events) on physical activity and sport participation, however, paints a more complex picture of the potential of sport for the trickle-down effect. Namely, the mere exposure to competitive sport may not produce the desired effects, so an additional strategic nuance is needed to leverage this potential (e.g., Refs [80–82]). The same holds for the awareness-raising potential of sport events and consequent behaviour change for sustainable development [83,84].

With Item 19, the experts in the panel expressed the necessity for the general population acknowledging sport's contribution to sustainable development. Implicitly, this may be a result of experts' concern that, so far, sport stakeholders have not always proven to lead the way as role models for sustainability (e.g., Refs [64,69,85–88]). In the context of Items 18 and 20, it seems that there is a worry about sport's perceived legitimacy when the aim is to raise awareness about sustainable development; a similar concern was already expressed through Item 10.

5.5. Tools

Interestingly, the experts' recommendations did not include any tools level considerations. This is in contrast to what Moon et al. [2] discovered; the international sport federations in their study reported that they used standardised management tools. However, their research design included explicit questions about the standardised management tools and purposeful sampling of federations with sustainability initiatives in place. Our findings can perhaps be attributed to the larger organisational heterogeneity of our sample, where the organisations that are at the initial state of organisational sustainable development are included, focusing on the other levels of the FSSD, as well as to potential differences in priority setting between the organisations. Tools, such as indicators, International Organization for Standardization (ISO) certifications or reporting standards (e.g., Global Reporting Initiative), are usually used for mapping and reporting [89] de-

spite their potential to be used for the strategy formulation and implementation, as well as external communication [90,91]. Future research could explore to what extent various international sport organisations use these tools and what role they hold for internal and external sustainability management elements, especially for perceived legitimacy of sustainability actions.

5.6. Limitations and Outlook

This study used the FSSD framework to cluster items that represent strategic responses to contribute to sustainable development. Owing to the exploratory nature of our research, an inductive approach generated the items, which were then clustered with the help of the FSSD. One alternative approach would have been to use the FSSD as a theoretical background and develop questionnaires based on the content of the FSSD. This procedure, however, has one important disadvantage: it would have been likely to result in socially desired responses because the researcher (not the informant) introduces a particular topic. This is why we did not follow such deductive approach. Still, based on our findings, the FSSD showed promise for future studies that could consider the FSSD in its entirety to study the strategic sustainability management of sport organisations.

Second, we considered international sport organisations as one homogenous entity, although they are heterogeneous with different purposes [92], governmental versus non-governmental characters, and cultural and normative contexts. This is particularly relevant, as the sustainability considerations are context dependent, and there is no one-fits-all solution [20]. A more nuanced sampling could be beneficial for guiding sustainability strategies in line with individual organisational purposes.

Finally, one methodological limitation is the drop-out of experts, which is typical when multiple feedback requests are made [53]. Although the attrition rate calculated for the present study exceeded the recommended 70% [93] and can thus be evaluated favourably, one cannot know whether the results would have been replicated if all initially participating experts had taken part in the final round.

5.7. Managerial Implications

The implications for managers of international sport organisations are manifold. To steer their organisation towards sustainable development, managers, regardless of their level, can act as agents of change. The organisations should prioritise sustainability in their vision, mission and values. Likewise, the introduced changes should be planned in the long run and not just as an add-on incidental activity. Sport events should include requirements for sustainability from the earliest stages. Support should be provided to event organisers when it comes to expertise in sustainability. In particular, critical considerations when organising sport events are the sustainability and legacy of sporting facilities.

The implementation issue came across as a very relevant finding with a decisive managerial implication. Our experts viewed taking action based on the policies as crucial; hence, managers should act on the policies and, in that way, actually “do good” and show the legitimacy of their promises to external stakeholders. Furthermore, with the measurement and evaluation mechanisms in place, they can substantiate their claims and establish the trust needed to clarify the commitment from all organisational stakeholders. Moreover, when making decisions, systems thinking is necessary as a base for all actions in which the environmental, social and economic interaction is analysed and taken into account.

It is difficult to recommend what should be the highest priority strategic consideration items within system, success, strategic guidelines, actions and tools as optimal for contributing to relevant sustainable development goals. Rather, our work suggests that a mix of items of all five categories serves the purpose best and thus meets the sustainable development agenda. Addressing all categories indicates that organisations holistically embrace sustainability with high priority and consider promoting sustainable development as an essential managerial task, with consequences at all levels. Based on the results of our study, there is also clearly room for improvement on the tools, system and success levels.

6. Conclusions

This study provided an empirical examination of the relevance of strategic directions for international sport organisations' transformation towards being more sustainable. The findings revealed what the high-priority items are, and that the proposed items can be, allocated to four levels of the FSSD, namely system, success, strategic guidelines and actions. This indicates that the transformation towards sustainability from the perspective of our respondents should be addressed at the normative, strategic and operational levels. The most urgent seems to be a normative change in which sustainability is prioritised throughout all organisational strategies and actions. While the present study extends the current knowledge on strategic sustainable management in international sport organisations, the study of actual implementation and performance of these actions in the near future is warranted to explore how international sport organisations contribute to achieving the SDGs.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/su14169874/s1>, Table S1: Statements rated in the second round above the consensus level of 80%; Table S2: Statements rated in the second round below the consensus level of 80%.

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