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**“Mapping of sports facilities –
Meeting 2: Sustainability”**

Organised jointly by EPAS and the Mulier Instituut

Tuesday 5 July 2022
9am – 12.30pm

Online Meeting

MEETING REPORT DRAFT

Introduction

Sustainability is a key area flagged up in the revised European Sports Charter (ESC) and falls under “sports ethics” which includes respect for human rights and sustainability (Article 7 revised ESC). Article 9 of the ESC sets forth the wide parameter covered by sustainability, stating that all sporting activities should be ‘economically, socially and environmentally sustainable’. As such, the second meeting in the series of 3 on the mapping of sports facilities co-organised between the Mulier Instituut and EPAS focused on sustainability in a wide sense, but with a particular focus on environmental sustainability in relation to sports facilities.

Given this, the objective of the meeting was twofold:

- 1) to gain insights into current sustainability measures in sports facilities; and
- 2) to bring together researchers and national level policy-making experts to identify solutions to explore how to maximise sustainability measures in or related to sports facilities across Europe and at national level.

To this end, a series of questions were proposed to the participants, including:

- 1) To what extent do sports facilities in Europe already taken on board sustainability issues?
- 2) Which policies/ tools already exist to encourage the promotion of sustainability in relation to sports facilities?
- 3) What are the barriers which prevent implementation of further sustainability measures in sports facilities?
- 4) Which resources do facility owners have at their disposal to implement sustainability?
- 5) What lessons can be learnt going forwards?
- 6) What broader sustainability issues related to the sport ‘place and space’ can be identified (e.g. mobility for sport, sport tourism, climate impact on sport locations).

Discussion

The event was opened by *Francine Hetherington Raveney* (FHR), Deputy Executive Secretary of EPAS, who outlined the structure and format of the event, welcomed the participants, and recalled the first meeting of the series, centred around the changing patterns in sports facility use during the COVID-19 pandemic. FHR noted that this meeting focused on sustainability and that the next one would pertain to financial investments and sports facilities. *Dr Remco Hoekman* (RH), Director of the Mulier Instituut and co-facilitator of the event, introduced the Mulier Instituut and its research relevant to the sustainability of sports facilities, and noted the objectives of the meeting, namely linking research community with and providing evidence for policy-making experts.

FHR proceeded with the presentation on the work of EPAS in relation to sustainability and the mapping of sports facilities. She recalled the United Nations [2030 Agenda for Sustainable Development](#), UNESCO [Kazan Action Plan](#) (2017) and the [Guidelines on Integrity in Sport](#) developed by EPAS within its framework, as well as a number of Council of Europe’s projects linked to the [Sustainable Development Goals](#), in particular the [ALL IN](#) project, [Start to Talk](#) initiative and the upcoming 2023 Diversity Conference. FHR also recalled the Council of Europe [Revised European Sports Charter](#) (2021) as a key document for EPAS, in particular its

Article 9, which reinforces the importance of economic, social and environmental sustainability in sport.

The next speaker of the panel, *Orsolya Tolnay* (OT), presented the work of Sport and Sustainability International (SandSi), its mission to accelerate sustainability in and through sport, and its three main priorities, namely climate, zero waste and health. She highlighted the intertwined nature of sports facilities and major sports events and listed five principal topics related to sports facilities and sustainability in the European context: energy efficiency, water, waste generated by events, mobility, and stakeholder engagement. OT shared examples of existing stadiums and circuits that have the ISO 20121 certification on Event Sustainability Management System, which is one of the available framework tools for sustainable management. She also mentioned the measurement tools for carbon emission, namely the UN 2030 Calculator, as well as a certification demonstrating commitment of sports facilities to health, safety, equity and performance.

OT noted the lack of knowledge about the implementation of such tools as one of the major challenges and stressed that one of SandSi's main aims is to address this gap through education, awareness-raising, and facilitation of connections between sport and sustainability stakeholders. She also shared about SandSi's current and upcoming projects, activities and partnerships. Among the key takeaways, OT highlighted that federations must develop their sport-specific frameworks for environmental management systems based on their priorities, and that governments and institutions have a role in promoting the accessibility of knowledge and the use of sustainability-related tools in sport. She also suggested that sustainability could be a business model and could provide competitive advantage to sports facilities and sport organisations, leading to more visibility, sponsors and additional financial resources.

In response to the question on the extent of applicability of the aforementioned sustainability tools to the grassroots level, OT emphasised that sports federations should be responsible for developing their own systems, potentially by adapting the already existing mechanisms to specific sports, to ensure that grassroots sports clubs can implement sustainability frameworks. Currently, International Automobile Federation (FIA) is the only sports federation that developed its own environmental accreditation system. Regarding the strategy of promoting sustainability as a business model, OT indicated that SandSi's work is aligned with the UNFCCC and the Climate Action Framework, as well as the UN Sustainable Development Goals (SDGs) through the Sustainable Sport Lab, and that their platform functions primarily for education awareness-raising and through partnerships.

Tomáš Fíbek (TF) introduced the work carried out under the Czech Presidency of the Council of the European Union on sustainability of sports infrastructure, focusing not only on environmental but also financial and social sustainability. He noted that physical and socio-economic accessibility was crucial to their work, alongside location sustainability, specifically mapping of sports infrastructure and sports registers. TF also presented the upcoming conference on Sustainable and Accessible Sports Infrastructure followed up by the opening of the European Week of Sport in September 2022.

The next panellist, *Peter Fischer* (PF), presented the Green Sport Expert Group (XG), which is embedded in the EU Work Plan for Sport 2021-2024 and its priority areas, one of which is the environmental dimensions of sport. The Expert Group is comprised of ministry officials, experts in advisory capacity, namely the UNFCCC Secretariat, and observers, who are

representatives of European sport federations and sporting goods industry. PF indicated that the knowledge of people organising the sport is underdeveloped and that the main objective of the Green Sport XG was to prepare a common framework for sustainable sport with shared commitments encompassing the following key elements (Chapters): sport infrastructure; sport events; innovative cross-sectorial solutions; capacity building, education about and promotion of sustainable sport practices; and co-operation with the European Climate Pact. PF also outlined the main challenges the XG encountered, including the lack of time due to the voluntary nature of the work, which they were able to counter by establishing sub-groups that met more frequently; identifying key areas and experts with practical expertise, making recommendations concise and practical, and finding measuring tools that are free and easy to use.

OT expressed SandSi's ambitions to develop a measurement tool accessible to sport organisations in the future. In reply to RH's query on the Erasmus+ opportunities to conduct in-depth studies on sustainability and sports facilities, PF noted that while there were no direct calls for research on this topic specifically, sustainability is a horizontal priority in Erasmus+ overall and the Erasmus Sport programme in particular. Following FHR's request to elaborate on Chapter 3 of the common framework, PF introduced the two-fold approach to the cross-sectorial solutions: to mitigate the impact of climate change and to limit the negative impact of sport on the climate through the interlinkages and co-operation across different sectors. He also elaborated on the composition of the XG, noting that while no researchers participated as observers, a number of experts had academic background. PF emphasised the need for concrete examples of good practices that remain relevant and concise.

In response to RH's question regarding data collection on sustainability in sport on European level, PF noted that apart from the Eurobarometer survey, which had an entry on institutional sustainable strategy, data on sustainability is not collected in a systematic way, and that conferences could contribute to sharing of relevant examples. RH mentioned the Task Force on Harmonised Sport Statistics and underlined the importance of harmonisation of data collection across different countries in Europe. PF expressed interest in having an easy and harmonised way of calculating carbon footprint of the activities of all people involved in sport. In this context, FHR highlighted sustainability as one of the themes of the upcoming 17th Council of Europe Conference of Ministers responsible for Sport.

The meeting proceeded to the second part of the event concerning national case studies. First, RH provided insights in the progress on the roadmap to sustainable sport facilities in the Netherlands, monitored by the Mulier Instituut. The roadmap focuses on 3 pillars: 1) sustainable energy use of sport facilities; 2) environmentally friendly management of sport facilities, climate adaptive measures and biodiversity; 3) circularity. RH pointed out the value of insight into the ownership of sport facilities and services to identify specific actors who need to take action. He noted that Dutch government provides 30% subsidy on sustainability measures to stimulate investments into voluntary sport clubs and move towards the goals set within the roadmap, and that these investments should be done by local authorities, who are the main owners of sport facilities. In the Netherlands, there are large investments in sport clubs related to sustainability, primarily focusing on energy reduction measures such as LED lighting for facilities and pitches, solar panels, isolation etc., which are in line with the measures suggested in the energy scans. RH also introduced research on the energy use of sport facilities

and highlighted a significant reduction of energy and gas use over 2018-2021, which may nonetheless be impacted by COVID-19 pandemic.

RH noted a progress in the environmentally friendly management and maintenance of sport facilities, in particular grass pitches, as well as the emerging availability of tools for improving biodiversity at sport venues to grassroots sport clubs. He outlined various circularity measures, including artificial pitches, no single use plastics at sport clubs and recycling of plastic bottles, and other instruments used by policy. RH also shared examples of inspiring projects, namely electric car share in small villages, infrared heating panels and generation of solar heat among others. Regarding future research, the Mulier Instituut seeks to continue the current monitoring system, provide data on long-term developments, gain further insight into taken measures and impact per location, and broaden their study with travel movements for sport. RH concluded that despite significant progress made, more investments are needed, and that combining sport facility data with other databases may lend insight into implementation of the roadmap to sustainable sport. In addition, although financial uncertainties caused by COVID-19 may hinder the adoption of sustainability measures, the current high prices of energy and gas may stimulate volunteer sport clubs and other actors to take action.

Maël Besson (MB) followed with the presentation on sustainability of sport facilities in France. He recalled the WWF report *Climate change: The world of sport at +2° and +4°*, which predicts an increase in the number of days without sport practice up to 24 and 66 days yearly due to the rise of global temperature of 2° and 4° Celsius respectively. Furthermore, stadiums would be exposed to additional days in a heat wave, and a growing number of extreme meteorological events would cause damage to sport facilities, many of which are not adapted to high temperatures and are too expensive to renovate (30,000 indoor sport facilities in France). MB noted that grassroots sports would be affected the most by extreme heat.

MB shared examples of environmentally responsible commitments from managers of large-scale sport facilities and event organisers noted how the change of laws and regulations could contribute to the sustainability of sports infrastructure. Among the examples of incentives and innovation, MB highlighted the conditionality of public aid or subsidies on compliance with environmental criteria (which is currently exercised in France) and the connection of stadiums to electrical networks instead of generators. MB also stressed that the aforementioned initiatives are not enough to reduce humanity's impact on the environment, and that fundamental change of approach and the culture itself is needed. In response to SK's question on the follow-up actions within the local communities in terms of infrastructure affected by increased heat, he noted that it is not anticipated enough.

The next presenter, Prof. Dr. Pamela Wicker (PW) introduced her research on the carbon footprint of traveling to sports facilities. She noted that sport sector produces negative environmental externalities and that most of the emissions are caused by sport-related travel. PW pointed out that an understanding of the level of environmental impact of sport is needed first to develop relevant solutions. Her past research covered a variety of stakeholders, including sport participants, sport clubs members, spectators and specifically sport tourists. PW also outlined the main methods employed in her research, which include converting the data collected through surveys into carbon dioxide equivalent emissions as the unit of measurement of the carbon footprint and conducting plausibility checks of destinations and zip codes.

PW provided an overview of specific findings of her research. One of the large-scale studies, encompassing over 6,000 participants and 20 different sports, concluded that the annual carbon footprint of one active participant in Germany is 844 kg of carbon dioxide equivalent emissions, with the regular weekly training being the largest contributor. In this context, she highlighted the need to ensure that improving environmental sustainability of sport does not decrease its health outcomes. PW also noted that the level of carbon emissions highly differ between different sports, with team sports having a much lower level of carbon footprint than individual sports or sports practiced in natural environments. A different study assessed pro-environmental actions within sports clubs and the monthly carbon footprint for traveling to the training sessions, identifying approximately 35 kg of carbon dioxide equivalent emissions across all sports examined. Another study focused on the carbon footprint produced over one season by active winter sports tourists and specifically snowboarders and skiers, which amounted to 431 kg of dioxide equivalent across both types of participants.

In addition, PW introduced two studies concerning spectators of Bundesliga, one examining the carbon footprint of all 18 teams participating in the 2018 season, and the other identifying carbon footprint of transportation means of a specific football club. In her research, PW also identified factors determining the level of carbon emissions, one of which is environmental consciousness and individual attitudes that are challenging to convert into behaviour (for instance, individuals are not willing to switch to less convenient transportation means), resulting into an environmental value-action gap. She stressed the importance of incentivising those individuals to support their beliefs by actions and use more environmentally friendly transportations means.

Following PF's request to elaborate on the sustainability criteria of the German Football League, PW noted that this measure is based on self-reporting, which may lack objectivity. Regarding the main incentives for fans to use more sustainable means of transportation to reach sport facilities, she highlighted the need to consider the monetary cost, capacity of transport, and facility characteristics (including safety), which suggests a role for city planning. PW also suggested that working on infrastructure requirements would create incentives for using public transportation and other more sustainable means such as bikes and e-scooters. In response to FHR's question on the role of awareness of their carbon footprint in individuals' unwillingness to switch to less convenient means of transportation, PW noted that it is a combination of different factors, including the lack of awareness, infrastructural and capacity issues, as well as public transport options. She emphasised the need to develop incentives at the national level that go beyond monetary ones and the importance of changing the infrastructure.

The last speaker, *Tapani Laakso* (TL) delivered a presentation on social sustainability of sport, which is interconnected with economic and environmental sustainability. While defining social sustainability, TL highlighted the inclusion and the empowerment of different individuals by provision of opportunities and tools to be physically active. He encouraged participatory development of sport services, where facilities are developed together with people using them, and noted the correlation between segregation in terms of access to sport facilities and health and well-being. TL introduced a variety of dimensions of accessibility, including the quantifiable ones, such as special, temporal and economic accessibility; more abstract dimensions, namely legal, cultural and social; and dimensions related to skills required to use sport facilities. He outlined the decision-making process behind engaging in physical activity,

which encompasses a number of enabling conditions, past social interactions and the individual's decision itself.

TL introduced Spatial Accessibility Tool, which evaluates spatial accessibility of existing sport infrastructure and identifies the best location for a new sports facility. However, he noted that there no clear connection between proximity of sport facilities and physical activity had been established. Rather than the lack of special accessibility, other barriers, including physical and psychological, and “dimensions” such as versatility prevent individuals from engaging in physical activity. TL suggested that promoting physically active lifestyle is not only about planning new or improving existing facilities and that positive social interactions need to be encouraged, which may include managing relations between people, promoting equality and distributing social capital. He also underlined the importance of planning city infrastructure and interacting with local communities. Finally, TL stressed that understanding social sustainability and accessibility is key for both economic and environmental sustainability.

In response to RH's question regarding the actions sport organisations can take to make sustainability more prominent in their decision-making process, TL suggested identifying what types of facilities are needed in particular neighbourhoods (taking into account the proximity to people's homes) and what types of facilities fit together. Following FHR's query regarding other research in this area, *Jens Høyer-Kruse* (JHK) mentioned the research data on the Danish movement habits, types of transportation, and the utilisation of sports facilities, which is enjoying a lot of interest in Denmark at the moment. TL agreed with the benefit of locating sport facilities close to schools to save an additional trip for parents, but noted that school sport facilities in Finland provide services for their members only and thus remain unavailable for the public use. JHK also suggested that many facilities in Denmark are school facilities and do not fit adult sport and leisure preferences.

Conclusions

Finally, RH provided a brief overview of the sessions. He noted there is much to be done by researchers to bring to the table the knowledge needed to further improve policy on sustainability in sport. RH highlighted the relevance of research on carbon footprint and suggested a cross-country comparison in the future. He encouraged researchers and the policy community to join in a research proposal by Erasmus in the next round to stimulate further research on this topic. RH also pointed out the value of different perspectives presented at the meeting and expressed his anticipation of the upcoming opportunities to work together. FHR thanked the researchers and policy-makers as well as the Mulier Instituut for the rich discussions. She highlighted that sustainability is on EPAS's radar and it will be further advanced during the 17th Council of Europe Conference of Ministers Responsible for Sport. Having noted that the final meeting of the series will focus on public and private financial investments related to sport facilities, FHR closed the meeting.

Appendix 1: Agenda

9-9:10am Opening words (Remco Hoekman and Francine Hetherington Raveney)

9:10am-10:10am International and European angle

- *Francine Hetherington Raveney, Deputy Executive Secretary, EPAS – Presentation of the revised European Sports Charter and the work of EPAS in relation to sustainability and mapping of sport facilities*
- *Orsolya Tolnay, Member of the Board of Directors, Sport and Sustainability International (SandSi) – Presentation on the work of SandSi*
- *Peter Fischer – The EU perspective: presentation from the European Commission*

10:10-10:30am Questions and answers

10:30-10:50am Break

10:50am-11:50am National case studies

- *Dr Remco Hoekman, Mulier Institute/ Radboud University – The Netherlands*
- *Maël Besson, Consultant on Sustainability – France*
- *Prof. dr. Pamela Wicker, Bielefeld University – Germany*
- *Tapani Laakso, Jyväskylä University – Finland*

11:50am-12:10pm Questions and answers

12:10pm-12:30pm Conclusions and information about follow-on work and the next online meetings end 2022 on channels of investment in sports facilities

(Remco Hoekman and Francine Hetherington Raveney)

Appendix 2: List of Participants

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