Study of the environmental footprint of culture and sports organisation and its reduction possibilities in Estonia

Overview of study
Complete study available in Estonian

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REPUBLIC OF ESTONIA
MINISTRY OF CULTURE

REPUBLIC OF ESTONIA
GOVERNMENT OFFICE

Content

1. Executive summary

The study analysed the extent of the environmental footprint of the Estonian sports and culture sectors and put forward proposals to reduce their environmental footprint, considering the specifities of the sectors.

Calculations of the annual greenhouse gases emitted (as CO_2 equivalents) by organisations directly governed by the Ministry of Culture showed that by far the largest share of greenhouse gas emissions may be attributed to energy use. A significant portion of emissions originated from heat consumption, transport and waste management. High-quality baseline data was not available for the total population of culture and sports organisations but based on the sample of organisations included in the study, the distribution of emissions follow similar patterns.

Document analysis, online survey (quantitative and qualitative data collection), focus group discussions and an environmental footprint calculation were used as methods. To assess the environmental footprint, quantitative data was collected on waste generation, electricity and water consumption, heating, transport and the use of information technology. The study was commenced in 2022, but baseline information from the year 2019 was used to exclude the impacts of the COVID-19 pandemic on the sectors.

The calculations included the organisations' greenhouse gases emissions generated through their direct activities (Scope 1 emissions) and indirect emissions generated by the organisations' outsourced services (Scope 2 emissions). Emissions from the organisations' suppliers and other service providers (Scope 3) were not included in the calculations due to the lack of baseline data to be included in the calculations.

Document analysis showed that culture and sports sectors are not the core focus of the central approaches driving green transition on the European level (such as the Green Deal and corresponding legislative documents). Nevertheless, initiatives to promote, share information and steer funding are being developed to promote environmental sustainability of both the sectors. On the national level, sectoral strategic documents stress the importance of the sectors as supporters for promoting and directing environmentally sustainable solutions. Also, national goals such as the targets to minimise waste production apply to the sectors of culture and sports. Rising expectations by clients/visitors are expected to become one of the motivators to increase organisations' environmental sustainability.

Some culture and sports organisations in Estonia have started to implement activities to actively monitor and minimise their environmental footprint. The number of organisations who have implemented activities that also have environmental benefits is greater. Around 70% of the organisations surveyed have implemented IT solutions to minimise paper use, around a half are sorting waste or have reduced forced mobility needs (e.g., by holding digital meetings). A significant share of organisations holds it their position that the activities or changes that minimise the environmental footprint are not applicable in their organisations. This may be attributed to lack of knowledge in the area or in some cases to the specifics of the particular organisations. Organisations envision their environmental footprint to become smaller in the upcoming years. Currently, the biggest motivators for minimising their environmental footprint are seen to be the organisations' own determination and the expectations of their employees. Factors such as clients' expectations or requirements from owners or sponsors are not considered to be significant, currently.

The study recommended to support the green transition of the Estonian culture and sports sectors through various interventions. These include calculation and disclosure of the environmental footprint of an organisation or event, forming environmental principles and an environmental vision. The sharing of relevant information and increasing the environmental competencies of organisations are among the primary recommendations of this study. It is important to subsidise the transition to environmentally sustainable operating models and practices, as well as to ensure the eligibility of

cultural and sporting organisations, foundations and non-governmental organisation in various environment-related support programmes and actions. In many interventions, a gradual approach was suggested, as well as differentiation by groups, utilising the Ministry of Culture organisations as role models.

2. Overview of study

2.1. Aims and process of study

Ernst & Young in cooperation with external experts, the Estonian Government Office and the Ministry of Culture conducted a study of the environmental footprint of cultural and sports sectors and the possibilities to reduce it. The purpose of the work was to adapt the environmental footprint assessment methodology to the field of culture and sports, to analyse the scope of the environmental footprint of the Ministry of Culture's governance area and to propose activities for reducing the environmental footprint, accounting for the specificities of the fields of culture and sports.

The study was conducted in 2022. In addition to EY experts, University of Tartu and Tallinn Technical University environmental experts participated in the study.

The study was structured around three central research questions:

1. What is the current environmental footprint of the Ministry of Culture's governance area organisations and sectoral organizations?

2. What are the possibilities and effects of reducing the environmental footprint of culture and sports?

3. How can the culture and sports sector reduce their environmental footprint most effectively and contribute to climate goals in the best way?

2.2. Methodology and data

As requested, the methodology utilised to assess the environmental footprint of the culture and sports sectors builds upon that used by SEI Tallinn (2021) to assess the environmental footprint of the areas of government of the Ministry of Defence and the Ministry of the Interior. Using an analogous methodology provides an opportunity to compare the environmental footprints of the different governance areas. Furthermore, the methodology can also be used to assess both the footprint of a particular organisation or a limited number of organisations (for example, agencies in the area of government of the Ministry of Culture). The study encompassed the 51 organisations of the Ministry of Culture plus the ministry itself, the culture and sports events and/or organisations receiving public financial support, and organisations in the fields of culture and sport that do not receive support from public funds.

The study involved a document analysis, an online survey (quantitative and qualitative data collection), focus group discussions, and an environmental footprint calculation. To assess the environmental footprint, quantitative data was collected on waste generation, heating, electricity and water consumption, transport and information technology.

The calculations included the organisations' greenhouse gases (GHG) emissions generated through their own activities (e.g., energy production, fuel consumption in its vehicles; Scope 1) and indirect GHG emissions generated by the organisations' outsourced services (e.g., emissions from purchased electricity, distance heating and cooling; Scope 2). Emissions from the organisations' suppliers and other service providers (Scope 3) were not included in the calculations. Estonian examples show that even the organisations that are already measuring their environmental footprint and analysing ways to reduce it have not developed universal practices to account for the environmental footprint of Scope 3. Furthermore, it is currently not easy to obtain data to analyse the extent of the environmental footprint from suppliers or other service providers. Therefore, similar to the study for

the Ministry of Defence and the Ministry of Interior, the resource use and emissions of Scope 3 were excluded from the calculation. In the future, when it will be possible to collect the necessary data from partners, organisations would also have to map emissions within Scope 3, as the calculations of the environmental footprint of an organisation will otherwise not be complete. This is particularly important in the case of estimating the environmental impact of larger events organised by the organisations, since Scope 3 emissions usually account for a significant share of the total of these events.

During the study, culture and sport sector-based specifics were considered, which created challenges in the implementation of a universal assessment model. The specifics included, among other things, less central management (compared to other areas of government, such as the Ministry of Defence and the Ministry of Interior) and extensively varying operating principles and procedures (e.g., a large number of visitors to some events, holding events in different rental premises, a large amount of volunteer work). There are organisations that own buildings and organisations that use the premises of other organisations (e.g., school premises being used outside of teaching hours); organisations whose main activity is the organisation of large events with a small number of permanent personnel. This mixed picture means that based on the data available today and the whole culture and sports sectors, data overlaps between organisations, buildings and events cannot be avoided.

GHG emissions and resource usage mapping and calculation was based on the quantitative data collected through an online survey, applying the data model developed by SEI Tallinn. According to the methodology, direct and indirect GHG emissions (including emissions from energy production, fuel consumption, outsourced electricity, heat and cold energy production, transport and treatment of waste) were included in the calculations; however, the calculations did not include emissions from the organisations' suppliers and other service providers.

The submitted data formed the quantitative data sample, based on which emissions could be calculated. 2019 data was requested to avoid the significant impact of the COVID-19 pandemic on sports and cultural organisations being transferred to the dataset. Low priority of sustainability topics and the survey requiring 2019 data may have hindered organisations submitting the baseline data. More than 800 organisations opened the survey link, but only a few hundred submitted quantitative data. In addition, questions on attitudes and behaviour were included in the survey, roughly 300 organisations provided information on these.

2.3. The operational setting

The study compiled an overview of the approaches that serve as guidelines for the environmental performance of the fields of culture and sports in the present and the future. This overview was compiled by analysing international sources, Estonia's primary framework documents on the topic, the environmental practices of Estonian organisations and their environmental goals, as well as changes in consumer expectations.

The Green Deal, published by the European Commission in 2019, and the climate regulations implementing it, do not specifically address culture and sport sectors. Nevertheless, sector-based strategies and sustainability goals are being consolidated. Initiatives have been launched to define the environmental burden in the fields of culture and sport and to develop new policies to reduce it. The wider application of environmental reporting obligations in the fields of sport and culture is also foreseeable. In the field of sports, environmental issues and important challenges have been identified on the European level and strategic objectives have been put in place. A sector-encompassing framework is in development. Environmental and sustainability requirements are being added to EU-led funding programmes.

The national long-term strategy "Estonia 2035" aims to develop a methodology for carrying out the green transition in the fields of culture and sports by measuring the environmental footprint and developing measures that promote the green transition. The development plan "Culture 2030", approved in 2021, aims to introduce principles of environmentally conscious cultural management and promote a green transition. The plan aims to develop sustainable performance metrics, encourage the development of climate-friendly solutions, implement principles of circular economy, modernise cultural infrastructure, and promote the uptake and resilience of cultural buildings to the impacts of climate change. Already in 2015, the "Sports general policy principles 2030" stressed the important role of sport in the implementation of environmentally sustainable practices by stating that sports organisations and the establishment and modernisation of sport infrastructure will follow principles of environmental sustainability.

Both international and national organisations, as well as private cultural and sports organisations, have already formulated sustainability objectives and implemented best practices to reduce their environmental impact. The most common topics where Estonian sports and cultural organisations have planned activities and formulated principles or goals are digitalisation (e.g., reduce paper use and adopt cloud solutions) and waste management (e.g., sorting and reduction of waste). Re-use and elimination of single-use plastics is also common practice in the organisation of events, for example in the form of deposit packaging solutions and dishes produced from recycled materials. In addition, decorations, wristbands, posters and other marketing elements used at events are required to be produced from sustainable materials and/or be reusable. The principles formulated by the municipalities emphasise, among other things, that food offered at events should not be thrown away.

Surveys conducted both in Estonia and internationally report increasing environmental awareness of consumers and the preference for environmentally friendly consumption. According to the 2022 results of the EY Future Consumer Index, compared to previous years, a bigger share of consumers wants to contribute to a sustainable future, particularly through consumption of sustainable products (e.g., food and clothing) and services. An environmental awareness survey conducted in Estonia over the years shows environmental awareness has increased among the population. Consumer expectations will also have an impact on organisations in the fields of culture and sport in the future.

2.4. Greenhouse gas emissions

77% out of the 51 Ministry of Culture organisations submitted data on their environmental footprint. The total GHG emissions from these institutions in 2019 were 46,748 tonnes in CO_2 equivalent (CO_2e). Electricity consumption generated the majority of GHG emissions. A significant portion of emissions originated from heat consumption, transport and waste processing. Since emissions from the treatment of mixed municipal waste accounted for a very large portion of total emissions, sorting of waste is a key means of significantly reducing GHG emissions of these institutions. However, the transition from a linear economic model to a circular economy will allow for an even more pronounced effect. See table below for detailed information.

Table 1. Greenhouse gas emissions as CO_2 equivalent (tons) of the Estonian Ministry of Culture governance area organisations. Baseline data was submitted by 40 out of 52 organisations.
Data: Survey by EY

	Number of organi-sations	District heating	Local heating	Electricity used	IT	Sorted waste	Un-sorted waste	Vehicles	Total	
Museums	20	768	504	31,341	132	1	1,903	73	34,741	74%
Performing arts	11	663	374	3,424	77	9	2,297	180	7,035	15%
Sports	3	No info	71	368	2	No info	10	18	472	1%
Other governance area organisations combined	18	2,042	1	2,125	113	39	15	148	4,501	10%
Total	52	3,473	950	37,257	323	49	4,225	419	46,748	100%
		7%	2%	80%	1%	*0.1%*	9%	1%	100%	

14% of organisations provided qualitative feedback in the survey, however, only 10% of the respondents provided quantitative data on their organisation's environmental footprint. In 2019, GHG emissions were reported by the culture and sports organisations who participated in the survey as a total of 72,017 tonnes of CO_2e. Similarly to the organisations of the Ministry of Culture, electricity accounted for the largest share of the organisations' GHG emissions; however, emissions from heat consumption, transport and waste processing also accounted for a large share of GHG emissions. Stemming from sector-based specifics, GHG emissions from museums, and sports and performing arts institutions accounted for a significant part of the sector's total emissions. See table below for detailed information. While the sample is not representative for total culture and sports organisations, the data gives a good overview of the distribution of GHG emissions by activities.

Table 2. Greenhouse gas emissions as CO_2 equivalent (tons) of the culture and sports organisations who participated in the survey conducted.
Data: Survey by EY

	Number of organi-sations	District heating	Local heating	Electricity used	IT	Vehicles	Sorted waste	Un-sorted waste	Total	
Sports	333	9.8	5515.2	13,327.2	45.3	166.8	0.5	1,001.7	20,066.5	28%
Cultural heritage	59	No info	0.9	26.0	4.9	No info	0.1	50.7	82.6	0%
Museum	57	909.7	504.9	31,731.6	148.1	86.6	2.4	5,032.1	38,415.4	53%
Music	42	570.0	No info	889.9	23.1	58.2	38.7	14.9	1,594.8	2%
Libraries	47	1487.4	2.4	599.1	143.3	25.3	0.5	0.5	2,258.4	3%
Other culture sectors combined	140	1291.9	375.7	5106.0	154.3	308.0	10.2	2,353.9	9,600.1	13%
Total	678	4268.8	6399.1	51,679.8	519.1	644.8	52.3	8,453.8	72,017.8	100%
		6%	9%	72%	1%	1%	0%	12%	100%	

49% of the organisations that provided feedback to the questionnaire were involved in event organisation, but only 5% of respondents submitted quantitative data about the environmental impact of their events. Moreover, it became apparent that organisation who were are already engaged in measuring their environmental footprint had not developed uniform practices for estimating their environmental footprint. As a result, there are difficulties in mapping the full extent the events' environmental footprint (incl. the transport footprint of event participants). Yet, it is likely that such unaccounted sources make up a large share of the total environmental footprint. The vast majority of GHG emissions from events were related to emissions from transport and processing of unsorted waste.

2.5. Attitudes and activities performed in organisations

According to the results of the survey, Estonian culture and sports organisations estimated that their environmental sustainability will improve over the next few years. The organisations of the Ministry of Culture and organisations that own buildings saw themselves as less environmentally friendly. Organisations belonging to the same groups also predicted a greater expected increase in environmental sustainability.

Figure 1. Assessment by culture and sport organisations on how environmentally caring their organisations are. Data: Survey by EY

Less than a fifth of the organisations surveyed had set environmental targets. Many activities to that reduce environmental burden were considered not to be relevant by the organisations. This could be due to both low levels of awareness and the specifics of the respective organisation (see figure below).

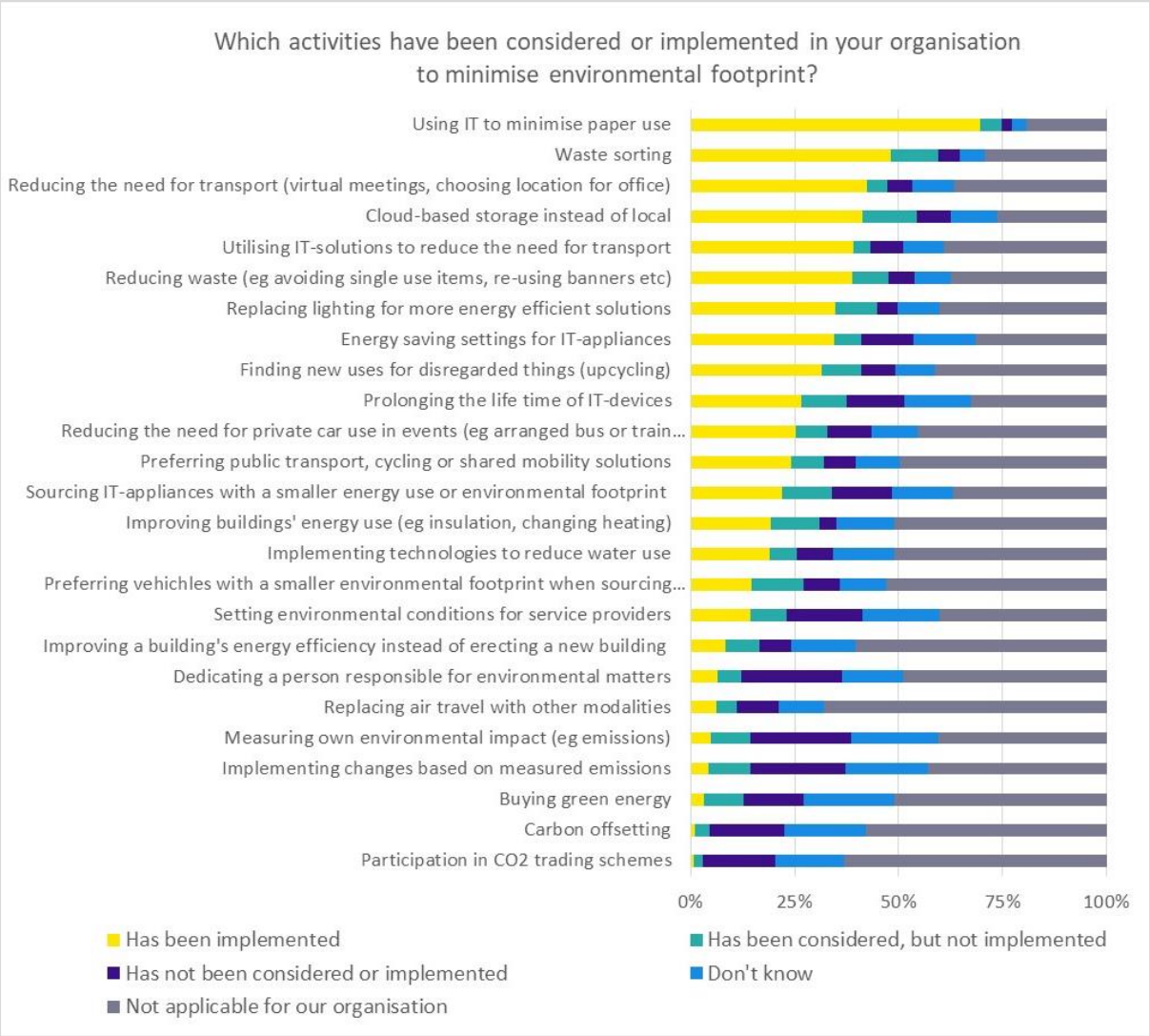

Figure 2. Activities considered or implemented by culture and sports organisations to miminise environmental footprint. Data: Survey by EY

Nearly half of the organisations considered the lack of knowledge to be an obstacle to implementing sustainability practices. Almost three-quarters considered it to be high costs which was reported to be the most significant limiting factor when implementing environmentally sustainable practices. See figure below for more information.

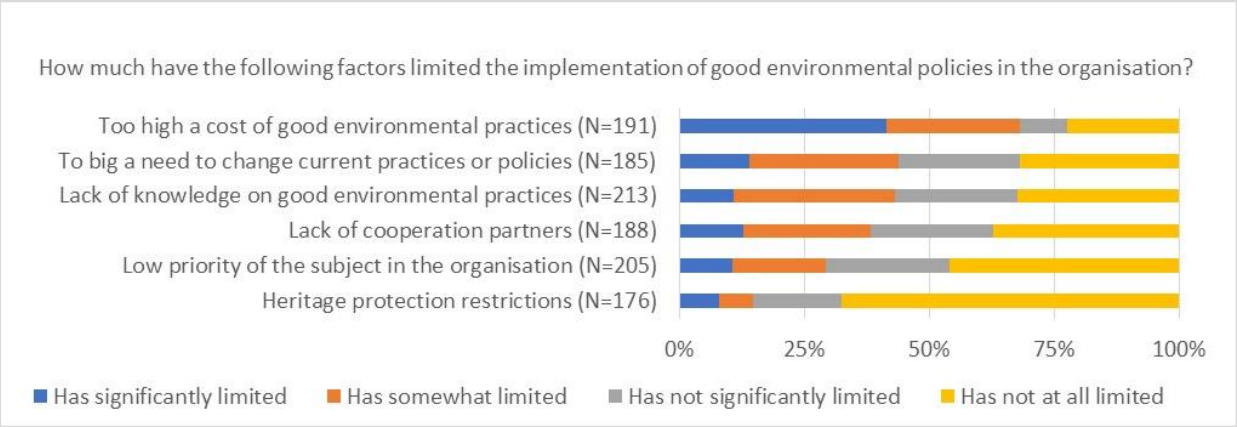

Figure 3. Limiting factors to good environmental policies. Data: Survey by EY

The most influential motivational factor for organisations to reduce their environmental footprint has been their desire to reduce their own environmental impact. The expectations of financiers, owners and customers have been less impactful. The mapping of environmental attitudes and practices shows that the maturity of organisations in the fields of culture and sport to manage environmental issues varies considerably. There seem to be many organisations that have not conceptualised environmental issues for themselves. At the same time, there are organisations in both fields whose opportunities to reduce their environmental footprint are limited, either due to the nature of their activities or their organisation.

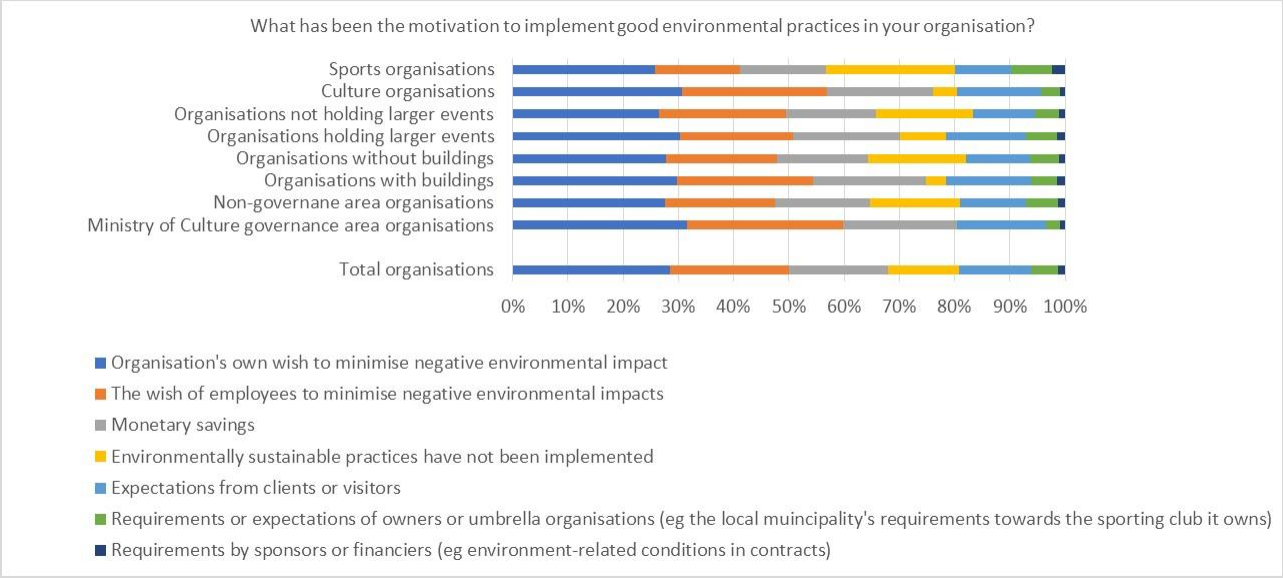

Figure 4. Motivations for implementing good environmental practices. Data: Survey by EY

2.6. Recommendations

The study made recommendations for reducing the environmental footprint. The first block of recommendations addressed the measurement and disclosure of the environmental footprint in the fields of culture and sport. This includes the calculation and disclosure of the environmental footprint of an organisation or event, the application of tools for calculating Scope 3 impacts, and, if possible, the calculation and disclosure of the environmental footprint of the buildings managed by Riigi Kinnisvara AS in their annual report.

Next after or parallel to measuring the environmental footprint, environmental principles and an environmental vision should be formed. This is supported by an overview of the organisation's current environmental impact and GHG emissions, enabling to set also quantifiable targets. It is important that the objectives are measurable, to facilitate the monitoring of implementation. This includes setting both strategic and measurable environmental goals for the organisation and formulating the organisation's environmental principles.

Supporting the fields of culture and sport through the sharing of relevant information and increasing the environmental competencies of organisations are among the primary recommendations of this study. The need for guidance, additional information and training repeatedly emerged as an issue area in focus group discussions. Also, the lack of understanding for relevant data gathering emerged as a concern in the surveying (how and what data to provide).

The competencies required vary greatly from one organisation to another. There are those who need guidance on how to take the first steps in data collection, but also those who have already created a strategy to reduce the environmental impact and need more sector-specific guidance. Increased competency would improve the availability and quality of primary data, as well as make it possible to assess the indirect environmental footprint in all the scopes.

It is important to support the transition to environmentally sustainable operating models and practices. For example, subsidies are needed for the deployment of renewable energy or sustainable transport solutions, or for the reconstruction of buildings. It is necessary to ensure the eligibility of cultural and sporting organisations, foundations and non-governmental organisation in various environment-related support programmes and actions.

The survey and focus group discussions conducted as part of the survey revealed varying levels of awareness among cultural and sports organisations. Very few organisations are currently engaged in regular footprint measuring or have developed a strategy to systematically reduce negative environmental impacts. Most cultural and sports organisations are in an 'experimentation phase' - they have gained initial knowledge and a desire to do something, but there is a lack of competence and/or capacity for a more systematic approach. Also, many are only coming to try out first initiatives as interest in environmental issues is emerging, but they are not yet able to take concrete steps. To account for the current reality, a gradual approach was suggested in interventions, as well as differentiation by target groups, utilising the Ministry of Culture organisations as role models.