

Environmental sustainability practices in music hubs and services

Final Report

Ross Purves and Emma Arnott

Department of Culture, Communication and Media,
Institute of Education, UCL's Faculty of Education
and Society



**IOE – Faculty of
Education and Society**

Acknowledgements

We are extremely grateful for the support we have received throughout this project from colleagues from Music Mark, Evangelos Himonides, Helen and Mel Purves. We also wish to acknowledge the expert support from colleagues who reviewed our draft questionnaire and helped us distribute invitations to participate across the sector. Sincere thanks are also due to colleagues in music services, hubs and partner organisations who responded to the questionnaire and survey instruments, took part in interviews and provided the good practice case study vignettes within this report.

Contents

1	Executive Summary.....	4
2	Introduction.....	7
2.1	Background to the research	8
2.2	The international and national education policy context	9
2.3	Further national policy influencing music education	11
3	Methodology.....	13
3.1	Research phases and data collection methods.....	13
3.1.1	Phase 1: Desk-based web and news/media searches	13
3.1.2	Phase 2: Initial scoping survey	13
3.1.3	Phase 3: Interviews	14
3.1.4	Phase 4: Sector-wide online questionnaire.....	14
3.1.5	Phase 5: Case study collation.....	16
3.2	Data analysis	16
3.3	Ethical considerations.....	17
4	Overview of participants and awareness of relevant organisations and initiatives	18
4.1	Overview of participants.....	18
4.2	Participant awareness of relevant organisations and initiatives	20
5	Organisational policy development, enactment and monitoring.....	23
5.1	Evidence of the influence of national and local policy on practice	24
5.2	Organisational policy consultation, development and review.....	26
6	Teaching and Learning-Related Activities	31
6.1.1	The extent and nature of existing sustainability-related teaching and learning activity..	31
6.1.2	Barriers and challenges to further development	36
6.1.3	Examples of good practices and effective collaborations	37
7	Transport and Logistical Matters	43
7.1.1	The extent and nature of existing developments relating to transport and logistical matters	43
7.1.2	Barriers and challenges to further development	47
7.1.3	Examples of good practices and effective collaborations	50
8	Other operational matters	53
8.1	The Extent and Nature of Existing Developments Relating to Operational Matters Beyond Transport and Logistics	53
8.2	Barriers and challenges to further development.....	60
8.3	Examples of good practices and effective collaborations	63
9	Emerging good practices for collaboration and the involvement of children and young people	69
9.1	Emerging challenges and good practices for organisational collaboration	69
9.2	Emerging challenges and good practices for involving children and young people	72
9.3	Further good practice case studies for collaborating with third party organisations, children and young people	73
10	Conclusions, implications and recommendations	80
10.1	Summary of findings	80
10.2	Recommendations for sector organisations	82
10.2.1	Particular opportunities for Music Mark in Promoting Environmental Sustainability	83
10.3	Recommendations for music services, hubs and their partner organisations	84
10.4	Suggestions for the consideration of individual practitioners	87
10.5	Limitations and recommendations for future research	88
11	References	91
12	Appendices	94
12.1	Appendix 1: Sources of support and further information	94
12.2	Appendix 2: further reading and resources.....	95
12.3	Appendix 3: Initial scoping survey	97
12.4	Appendix 4: Interview schedule	99

1 Executive Summary

In response to the climate crisis and a growing need for sustainable practices in music education, Music Mark commissioned a research project to assess environmental sustainability within UK music services, education hubs and partner organisations. Conducted by UCL's Department of Culture, Communication and Media, the study aimed to map current practices, identify barriers, and highlight good practices across the sector. The research was motivated by the belief that music education can play a powerful role in addressing environmental challenges through both operational change and pedagogical innovation.

The research was conducted in five phases: desk-based research, an initial scoping survey, in-depth interviews, a UK-wide online questionnaire, and the gathering of good practice case studies. These methods gathered both qualitative and quantitative data from over 150 professionals. Thematic and statistical analyses were used to identify trends, challenges, and opportunities. Ethical approval was secured for all phases, and data was handled in accordance with GDPR and institutional policies.

Findings and Implications: While 38% of questionnaire respondents reported having an environmental sustainability policy in place, others were either developing one or unaware of their organisation's position. Policies often focused on travel, energy use, and procurement, but teaching and learning were less frequently included. There was a clear appetite for more practical guidance in this area, particularly around instrument depreciation, repair, and disposal. Some policies were seen as possibly tokenistic, but there was also evidence of excellent practice in policy development too.

Creative, environmentally-themed teaching and learning activities were the most common form of sustainability engagement in evidence. These included concerts, composition projects and the use of recycled instruments. Youth engagement was seen as vital, and many projects successfully integrated environmental themes with musical learning. Barriers included time, funding, staff capacity, and uncertainty about how to deliver meaningful content. There was strong demand for continuing professional development (CPD), shared resources, and case studies.

Travel by peripatetic teaching staff emerged as a major sustainability challenge. While many services had taken steps to improve efficiency—such as revising timetables and using online meetings—rurality, poor public transport, and the need to carry instruments and equipment were perceived to inhibit further progress. Financial constraints and freelance work practices were also identified as hindering change. Some services had adopted innovative solutions, such as digital delivery models and zero-emission transport partnerships, but these remained exceptions.

Many services and hubs have made progress in reducing paper use, recycling, and maintaining instruments. However, challenges remain in areas such as energy

efficiency, procurement and building improvements, especially where organisations lack control over premises. Funding limitations were a recurring theme, and participants called for clearer guidance on sustainable procurement and disposal. Good practices included instrument amnesties, repair training, and partnerships with recycling initiatives.

Collaboration was a hallmark of successful environmental sustainability initiatives. Some services and hubs are partnering with schools, local authorities, environmental groups, and commercial organisations to deliver impactful projects. However, many initiatives we identified were driven by passionate individuals, raising concerns about scalability and succession. Youth involvement was widely valued, with examples of young people shaping policy and leading creative projects. Nonetheless, some participants cautioned against overburdening young people or treating their involvement as a tick-box exercise.

In conclusion, the research found a sector that is increasingly engaged and motivated regarding matters of environmental sustainability but also constrained by structural, financial, and logistical barriers. While many services and hubs are already taking meaningful action, there is a need for more consistent support, clearer policy alignment, and practical tools. Music education has a unique role to play in fostering environmental awareness and action, but this potential will only be realised through coordinated effort and investment.

Recommendations: Sector organisations play a pivotal role in embedding sustainability across the music education landscape. They have potential lead by example, championing sustainability as a core organisational priority. By developing practical resources such as toolkits, training programmes, and policy templates, they empower others to take action. These organisations are also well-placed to co-ordinate national campaigns and awareness days, fostering a shared sense of purpose. Facilitating peer learning and collecting data across the sector will likely result a stronger evidence base. Advocating for targeted funding and inclusive practices will help ensure that sustainability efforts are equitable and far-reaching.

Music services and hubs can make a tangible impact by integrating sustainability into their day-to-day operations and educational practices. Prioritising the repair and reuse of instruments not only reduces waste but can also teach pupils valuable lessons in resourcefulness. Environmental themes can be embedded into both teaching and performance, enriching the curriculum and inspiring students. The critical exploration of sustainable travel options and digital delivery methods may also help reduce carbon footprints while maintaining, or perhaps even enhancing, accessibility. Crucially, involving young people in decision-making processes ensures that their voices shape a more sustainable future. Building partnerships with local environmental and cultural organisations can further amplify these efforts.

Individual music educators and practitioners can contribute meaningfully to sustainability through small, manageable changes in their practice. Simple actions include maintaining and repairing instruments extend their lifespan and reduce waste. Thoughtful use of digital tools might enhance learning while minimising environmental impact. Educators can also weave environmental themes into their lessons, sparking curiosity and awareness among students. Sharing ideas with peers and supporting youth voice in sustainability conversations helps build a collaborative and forward-thinking community.

2 Introduction

In April 2024, Music Mark launched the awareness campaign *This Is Not A Rehearsal*. This focuses on the climate crisis and explores the role music education can play in addressing it in ways that are approachable, impactful, and achievable for those working in the sector¹. As part of this organisational focus, Music Mark commissioned a research-based assessment of environmental sustainability practices within music services, music education hubs, and their partner organisations across the UK.

Undertaken by a team from the Department of Culture, Communication and Media at the Institute of Education, UCL's Faculty of Education and Society, this research was conducted between March 2024 and May 2025. The research team aimed to:

1. establish the extent of any environmental sustainability-related activity already happening in different kinds of music hubs, music services and their partners across the UK;
2. consider how identified activities might relate both to activities within schools and national policy in this area;
3. highlight any barriers or limitations to music hubs, services and partners developing their engagement in this area further; and
4. identify examples of good practice within music hubs, services and their partners in this area which might be shared with wider music education community.

Examples of barriers, challenges and good practices were sought to reflect a diverse range of lived experiences and activities.

The research involved multiple phases of fieldwork, including initial desk-based web searches of organisational websites and news/media archives, an initial survey of music service/hub managers, a UK-wide online questionnaire, and in-depth interviews with professionals from music hubs, services, and sector partners. Key areas of focus included the potential for music teaching and learning provision to raise awareness and advocate for environmental issues and the development of organisational policies. Other areas of investigation included practical operational considerations relating to transportation, logistics, procurement, maintenance, buildings and facilities, recycling, and the disposal of instruments and equipment.

¹ <https://www.musicmark.org.uk/news/musicmark10-making-meaningful-sustainable-changes-in-music-education/>

Additionally, the study examined the involvement of children and young people in environmental sustainability-related decision making, and the extent of collaboration with third-party environmental groups and initiatives.

This report presents the key findings, highlighting both challenges and opportunities for embedding environmental sustainability practices more deeply across the music education sector.

2.1 Background to the research

The climate and ecological emergencies are already having serious and far-reaching consequences for people around the world, including in communities across the UK. These include heatwaves, flooding, rising sea levels, and energy poverty, all of which have direct implications for the physical and mental health of young people and their families. The ramifications are not only environmental but deeply social, disproportionately affecting those with the least capacity to respond. The urgency of these challenges demands that all sectors, including music and education, play an active role in addressing them.

Music and music education offer powerful and distinctive avenues for addressing these challenges (Purves and Himonides, in press). Music is immensely popular with young people and has the ability to engage, inspire, and communicate complex ideas in accessible and emotionally resonant ways (Ojala and Lakew, 2018; Hollo, 2018). It can influence cultural values, foster discussion, and serve as a platform for protest and advocacy (Buchborn *et al.*, 2022). Music educators are uniquely positioned to harness these qualities, not only by raising awareness but also by modelling sustainable practices in their work. While high-profile musicians have drawn attention to environmental issues, the everyday work of music teachers is equally vital (Smith, 2021; Galmiche, 2022). By embedding environmental sustainability into their pedagogy, music-making and wider professional responsibilities, music educators have the potential to empower the next generation to act with creativity, responsibility and hope.

However, despite this potential, there are significant challenges that can complicate meaningful action. One key difficulty lies in ensuring that music educators' efforts are authentic and not merely symbolic (Buchborn *et al.*, 2022). There is a need to avoid tokenistic approaches and instead foster deep, critical, and context-sensitive learning and musical experiences that resonate with students' lives and communities. Additionally, the boundaries between raising awareness and prompting action can be difficult to manage, especially when the outcomes of musical activities are often intangible (Hollo, 2018).

Music educators may also feel uncertain about how to evaluate the impact of their work in this area, or how to balance environmental themes with many other pressing social, regulatory, financial or curricular demands. These challenges require thoughtful

planning, openness to co-production with learners, and a willingness to reflect on practice and positionality within broader social and ecological systems. We sincerely hope that the findings and recommendations contained within this report will contribute to this vital area of work.

It is useful to consider the concept of ‘sustainability’, a term that has gained considerable prominence in recent years and is now employed across a wide range of discourses. One of the most frequently cited definitions originates from the report of the United Nations World Commission on Environment and Development (1987) (often referred to as the Brundtland Commission), which characterised sustainability as meeting ‘the needs of the present without compromising the ability of future generations to meet their own needs’ (para. 27). While this definition is intentionally broad, it is widely understood to encompass environmental, social, and economic dimensions.

These three interrelated strands are often summarised through the heuristic of the ‘three Ps’: people, profit, and planet—sometimes referred to as the triple bottom line (Harvard Business School Online, 2020). This framing is increasingly evident in policy documentation, including the most recent iteration of the National Plan for Music Education in England (see below), where a range of priorities are brought together under the overarching theme of ‘sustainability’. While our work acknowledges the significance of these broader dimensions, alongside the equally important concept of ‘cultural sustainability’, the principal focus within our research lies with environmental sustainability. Specifically, we are concerned with how music education might respond meaningfully to the climate and ecological crises, and how such responses might be embedded within musical, teaching, learning and operational practices in ways that are both contextually relevant and educationally robust.

2.2 The international and national education policy context

A number of major international agreements have shaped the integration of sustainability into education systems worldwide. One of the earliest was the 1989 United Nations Convention on the Rights of the Child (UNCRC), which has been adopted or ratified by 196 countries. Article 29 of the Convention highlights that education should prepare children to live peacefully and to care for the environment.

In 2015, the Paris Agreement brought together 175 countries in a shared commitment to limit global warming to 1.5°C. Article 12 of the agreement specifically calls for cooperation in enhancing climate change education, training, public awareness, and access to information.

That same year, the United Nations introduced the Sustainable Development Goals (SDGs), which include Goal 4 (Quality Education) and Goal 13 (Climate Action).

UNESCO's *Education for Sustainable Development (ESD) for 2030* initiative outlines how education can support the achievement of these goals. Additional initiatives, such as *Action for Climate Empowerment*, are intended to help to turn these policy frameworks into practical action.

In response to global-level agreements and developments such as these, governments of the four nations of the United Kingdom have responded with a range of domestic policies, many of which impact education, cultural provision, and either directly or indirectly, music education.

In England, the Department for Education's (DfE, 2022a) *Sustainability and Climate Change Strategy* was initially published during the COP26 climate summit in Glasgow. This strategy applies to all educational settings, including early years providers, schools, colleges, universities, and children's social care. It sets out four key aims: 1) embedding climate education across the curriculum; 2) reducing emissions from educational buildings; 3) increasing the resilience of educational settings to extreme weather; and 4) creating a healthier environment for future generations. In terms of curriculum coverage, the strategy focuses on subjects such as science, natural history, and agriculture and does not explicitly mention music or the arts.

Like, England's Strategy, *Scotland's Learning for Sustainability Action Plan 2023-2030* is also informed by the SDGs, the UNCRC and UNESCO's *Education for Sustainable Development 2030* framework. The Action Plan has five key themes: 1) leadership and collaborative partnership; 2) curriculum, learning, teaching and assessment; 3) learning environment and resources; and 4) learner voice, choice and action; and 5) meaning and understanding.

The 2022 *Curriculum for Wales* is informed by a similar range of international agreements and embeds environmental and sustainability coverage in various ways. A key goal is to educate 'ethical, informed citizens of Wales and the world' in relation to climate change, biodiversity, and sustainable living. Environmental coverage is also included within the Science and Technology, Humanities, and Health and Well-being curricula. These documents also integrate with the *Welsh Eco-Schools Programme*.

The *New Strategy and Action Plan for Education for Sustainability* in Northern Ireland again references similar international frameworks and treaties, and outlines six areas for action: 1) resourcing; 2) teaching and learning; 3) nongovernmental organisation (NGO) resources and activities offered through outdoor learning and site visits; 4) cooperation to deliver on wider education initiatives; 5) opportunities for NGO partnership and collaborative working; and 6) initial teacher education and teacher

professional learning. Music is briefly mentioned in relation to areas of the curriculum potentially amenable to collaboration with NGOs.

These national education strategies are of particular relevance to schools, but their influence on music services and hubs is felt indirectly through further rafts of related arts and cultural policy (see below). Moreover, given the close partnership working now so familiar across the music education sector, it will be increasingly important for hubs and services to stay abreast of these national-level educational developments. Local authorities, of course, have their own, wide-ranging policies covering environmental and sustainability matters. Since many music services remain closely linked to these bodies in various ways, there will also be strong influences from these as well.

2.3 Further national policy influencing music education

In England, the updated *National Plan for Music Education*, published in June 2022, replaces the previous version from 2011 (DfE, 2022b). One of the new Plan's strategic priorities is sustainability, though the term is used in a broad sense, referring not only to environmental concerns but also to the long-term and broader viability of music education, progression and careers (Purves and Himonides, 2024). This said, the Plan does include a paragraph directly relevant to environmental responsibility, although further, more detailed guidance is not included:

The UK requires the education sector to play its role in positively responding to climate change and inspiring action on an international stage. This includes Music Hubs. The [Department for Education] recently published its sustainability and climate change strategy, and we will expect Hubs to consider how they contribute to this strategy's aims. [Arts Council England] is committed to supporting cultural organisations to lead the way in their approaches to environmental responsibility, and we will work with them to set out in greater detail how Hubs can ensure they are achieving this (DfE, 2022b, p.58).

As can be seen, this section is also linked to the broader strategy of Arts Council England (ACE), which oversees funding for music education hubs. ACE's 2020–2030 strategy, *Let's Create*, identifies environmental sustainability as one of its core investment principles. As part of the recent process to appoint new Hub Lead Organisations (HLO), applicants were required to explain how they would address environmental responsibilities in line with the DfE's strategy. Limited to 4,000 characters, these responses also had to cover financial and operational forms of organisational sustainability as well.

In Scotland, there is growing interest in environmental sustainability within the arts and education sectors, driven by recent policy developments including the *Learning for Sustainability Action Plan* outlined above. Creative Scotland has, like Arts Council England, made environmental sustainability a core funding criterion. In particular, the

Multi-Year Funding Programme requires applicants to submit environmental sustainability plans demonstrating how they will ‘incorporate the climate emergency into their organisational planning’ and ‘manage and be resilient to the impact of climate risk’ (Creative Scotland, n.d., online). As a result, many national cultural organisations such as orchestras and opera companies have increased existing sustainability relating work still further, including within their educational work.

A Plan for Climate Justice and the Arts (Arts Council Wales (ACW), 2025a) was created in 2024 as part of the ACW’s ten-year strategy. This vision, created by a co-design group (including ACW members, other arts organisations, individual artists and creatives, audiences and members of the wider cultural sector) encompasses a set of aims and related objectives which have formed an action plan. Environmental sustainability is also considered in the Wales Arts International (2025) *Strategy Framework 2024 – 2034*. One of the desired ‘well-being outcomes’ being that ‘artists and arts organisations adopt more sustainable practices and behaviours’ (p.16). This will be reviewed annually using the carbon footprint of WAI-funded projects as an indicator. The Welsh Government’s (2022a) National Plan for Music Education does not include direct mentions of environmental sustainability or climate change strategy. However, there are related outcomes stemming from the Plan’s ‘first-experience’ scheme, which has resulted in the local, carbon-neutral manufacturing of instruments (Welsh Government, 2022b).

The Arts Council of Northern Ireland (ACNI) is embedding sustainability and environmental concerns into its work and funding programmes through several initiatives. For instance, its Cultural Bridge programme recently supported the *Colour Stories: Joint Journeys of a Colour Garden* project, intended to ‘use the arts and cultural events as catalysts for social change by educating communities to use art to make a difference to climate change’ (ACNI, 2024, online).

3 Methodology

3.1 Research phases and data collection methods

3.1.1 Phase 1: Desk-based web and news/media searches

An initial round of desk-based research was conducted, drawing on publicly available online resources and local media coverage. This included a systematic Google Custom Search of all English music hub websites as listed on the Arts Council England website, alongside individual searches of named music services and hubs across the UK. These searches employed a consistent set of keywords, including: ‘ecological’, ‘environmental’, ‘biodivers*’, ‘green’, ‘carbon’, ‘emissions’, ‘climate’, ‘warming’, ‘sustainab*’, ‘greenhouse’, ‘footprint’, “net zero”, ‘natur*’, and ‘energy’. In addition, targeted searches combining organisational names with these same terms were carried out using newspaper and media databases such as *Gale OneFile*, *Nexis*, and *PressReader*.

Whilst this initial field mapping process was not comprehensive, it nonetheless revealed a diverse set of activities and initiatives undertaken by music services and hubs in recent years. These were broadly categorised as follows: concerts and events; composition and commissioning; collaborative projects; low-carbon venues and sustainable travel initiatives; educational resources; and policy development. Key outcomes from this process then informed the design of the Phase 2 initial scoping survey, the Phase 3 interviews and the Phase 4 sector-wide online questionnaire.

3.1.2 Phase 2: Initial scoping survey

An initial presentation and anonymous paper-based survey were undertaken by the research team at Music Mark’s Spring Summit event in March 2024. These activities served both to introduce the research to the sector and to begin gathering early insights from attendees to inform the direction of the study.

The presentation drew on the Phase 1 findings to offer a preliminary snapshot of current practices across music hubs and services. It invited participants to reflect on the challenges and opportunities they faced in embedding environmental sustainability activities, such as those highlighted, into their work. Attendees were then asked to complete a short, anonymous paper-based survey, designed to help shape the next phases of the research (see appendix 3).

A range of headline themes emerged from survey responses, including participants' strong interest in sustainability leadership, a need for clearer guidance, and a recognition of the financial and logistical barriers to progress. The importance of collaboration, digital innovation, and creative approaches to sustainability also featured prominently in participants' responses. All these themes were combined with those emerging from the Phase 1 desk-based searches to inform the development of the Phase 3 interview schedules and the Phase 4 questionnaire. Additionally, many anonymous comments made within the Spring Summit survey also feed directly into this report.

3.1.3 Phase 3: Interviews

The interview phase of the research aimed to gather in-depth insights from individuals with specialist or expert knowledge in the field. Questions were designed using a semi-structured framework, allowing for flexibility in response to the varied contexts of participants (see appendix 4). Themed sections covered areas such as awareness of and collaboration with environmental sustainability-focused organisations, the development and implementation of environmental policies, teaching and learning activities, transport and logistical considerations, operational practices, and the involvement of children and young people in sustainability-related decision-making.

Potential participants were identified through a combination of existing professional networks, Phase 1 desk-based research, and suggestions from Music Mark. As a result, interviewees were drawn from a range of stakeholders, including those working within music services and hubs, as well as partner and sector organisations.

Interviews were conducted online using UCL-provided Zoom accounts. Sessions were recorded, automatically transcribed using Microsoft 365 and then manually checked for accuracy. All materials were stored securely on the UCL Research Data Storage Service (RDSS), accessible only to the research team.

3.1.4 Phase 4: Sector-wide online questionnaire

The sector-wide, UK-wide online questionnaire targeted professionals working in or with music hubs and services, including teachers, administrators, managers, and those from partner organisations.

The questionnaire instrument was developed through a structured and reflective process. The initial stages involved reviewing themes emerging from Phases 1 and 2 of the fieldwork. Furthermore, a range of recent, relevant reports and surveys from across the music, education, government, charitable, and industrial sectors were consulted.

These helped shape the questionnaire's thematic structure, language, and focus areas, ensuring alignment with current sectoral practices and concerns.

Within the music and arts sector, sources included research by Shaw et al. (2022), Brennan, Connelly, and Lawrence (2016), and Betternotstop (2022). Resources toolkits were also consulted (Julie's Bicycle, 2009, n.d.; Julie's Bicycle, Attitude is Everything, and A Greener Future, 2023; PLASA and #WeMakeEvents, 2024). In the education sector, relevant insights were drawn from the UCL Centre for Climate Change and Sustainability Education's (2022) teacher survey, the work of Sustainable Schools (2012), and a collaborative report by the Green Schools Project and Students Organising for Sustainability UK (2021). From the non-profit and local government sectors, contributions by Keep Wales Tidy (2021) and the Local Government Association's climate change surveys and strategic reports (Local Government Association, 2022, 2024) were considered.

The questionnaire was designed in two distinct parts. Part 1 was entirely anonymous and collected participants' views and experiences relating to environmental sustainability practices. Thematic areas covered included policy, teaching and learning, transport and logistics, operational practices, collaborations, and youth involvement. Part 2 was optional and non-anonymous, inviting participants to share contact details and examples of sustainability initiatives for potential follow-up case studies during Phase 5. The initial draft was piloted with three experienced music education professionals, helping ensure clarity, functionality, and relevance.

The questionnaire was widely publicised to maximise participation across the sector and the UK. Music Mark promoted the survey through its networks, newsletters and professional channels. The research team also distributed information widely through a range of professional networks. Particular efforts were made to encourage responses in less represented areas of the UK. Invitation messages reiterated that the survey was open to anyone working with or for a music service or hub in any part of the UK, including those in schools and partner organisations, and that responses would help identify best practices and inform future support for the sector. Participants were reassured of the survey's respect for anonymity and ethical approval. A direct link to the questionnaire was included.

The questionnaire was 'live' online between May and October 2024, hosted using UCL's contracted Qualtrics platform. Subsequently, data was stored securely on UCL's Research Data Storage Service (RDSS) and was managed in accordance with UCL's data protection policies.

A PDF version of the full questionnaire instrument can be downloaded from:
<https://www.homepages.ucl.ac.uk/~rtnvrmp/CompositeQuestionnaire.pdf>

3.1.5 Phase 5: Case study collation

Phases 1 to 4 of the research resulted in the identification of a wide range of examples of existing activities relating to environmental sustainability undertaken by services, hubs and their partners. A representative selection from these was made by the research team, where possible considering nation, geographical spread and focus/approach.

Senior organisational staff in the relevant organisations were then contacted and invited to provide c.200-word summaries of the identified activities. In some cases, hub and service staff signposted existing documentation, write-ups or provided additional verbal clarifications, which were then adapted by the research team to form draft case study text. Drafts were subsequently returned to organisations for final amendments and approval. Organisations were also asked to consider supplying illustrating images, suitably cleared for safeguarding, participant consent, data protection and copyright perspectives, to the research team.

The summaries have been embedded within this report and are intended to offer illustrative vignettes of good practices. Whilst these are included at points reflecting themes under discussion, it is important to note that they typically link to multiple areas covered in our research. Therefore, they should be considered for the broader range of good practices in evidence, and not only in relation to those discussed in adjacent sections of the report.

3.2 Data analysis

Qualitative data gathered during the initial desk-based searches and scoping survey, the interviews and the qualitative, open-text box questions on the sector questionnaire were analysed using thematic analysis. Quantitative analysis of questionnaire data was undertaken using SPSS and Excel, with figures and tables in this report referring to the whole of the UK unless otherwise stated. A particular feature of the quantitative analysis has been the production of ‘action-priority’ matrices in relation to teaching and learning, transport and logistic, and other operational areas. Such matrices are helpful in mapping the perceived challenge or effort associated with a particular activity against its perceived priority or value (Heidenmark Cook and Wirén, 2024). They categorise a given range of items as falling within four zones, as defined by median response percentages: ‘high priority, high effort’, ‘high priority, low effort’, ‘low priority, high effort’ and ‘low priority, low effort’. In the case of our findings, they help identify issues raised in the questionnaire which would benefit from greater sector prioritisation and collective action.

3.3 Ethical considerations

The various phases of fieldwork involving human participants received approval from UCL Institute of Education Research Ethics Committee (approval numbers: REC1945, REC1984 and REC2059).

Across all phases, research adhered to rigorous ethical standards to ensure voluntary participation, informed consent, and the protection of participants' rights and wellbeing (BERA, 2024). Participants were provided with detailed information sheets and consent forms, which clarified that their involvement was entirely voluntary, and would have no impact on existing professional or personal relationships. They were informed of their right to withdraw at any point before data anonymisation or publication and reassured that their responses would remain confidential unless explicit permission was granted to name their organisation. Gatekeeper consent was obtained for the Phase 5 case studies, ensuring organisational awareness and agreement to these terms. Sensitive topics such as eco-anxiety were approached with care, with participants signposted to relevant support resources (see appendix 1). The wellbeing of the research team was also monitored, with appropriate support mechanisms in place.

Anonymity and confidentiality were safeguarded through the careful review of data at source and the redaction of personal information. The potential for safeguarding concerns was managed in line with institutional policies. Data was securely stored using UCL-hosted, GDPR-compliant systems with access limited to the research team.

4 Overview of participants and awareness of relevant organisations and initiatives

4.1 Overview of participants

In total, 45 responses were returned within the Phase 2 initial scoping survey. The vast majority of respondents worked within music services or hubs, with over 70% having management and leadership responsibility. 40% undertook teaching and learning activities and 22% were involved in administrative or operational support areas.

A total of 14 interviews were conducted. Five interviewees were senior managers or staff with specific responsibility for sustainability matters within English music services and hubs. Two were senior managers in Welsh music services. Interviews were also conducted with representatives from three membership organisations, collectively covering the four UK nations. Four further interviews took place with representatives from industry, business and educational organisations which partnered with one or more music services/hubs. Despite the best efforts of the research team and colleagues from Music Mark, it was not possible to arrange an interview with a representative from a Northern Irish music service.

With regards to the questionnaire, a total of 107 usable responses were received. The vast majority of respondents (93%) worked within a single UK region but a small number (6%) operated across multiple regions. Geographically, the most represented areas in England were the South East (21%) and the North West (17%) (Table 1). In contrast, the least represented English regions were the North East (5%) and the South West (9%). Beyond England, 7% of respondents worked in Scotland, 5% in Wales, and 2% in Northern Ireland.

Table 1: Geographical breakdown of questionnaire respondents' working locations (n=107, with 6 participants working across more than one area)

England: East Midlands	17%
England: East of England	10%
England: London	13%
England: North East	5%
England: North West	17%
England: South East	21%
England: South West	9%
England: Yorkshire and the Humber	12%
England: West Midlands	14%
Northern Ireland	2%
Scotland	7%
Wales	5%

In terms of professional roles, most questionnaire participants (76%) were affiliated with a single music service or hub, while 24% worked with more than one. 65% of participants were directly employed by one or more organisations. A smaller proportion were self-employed or contracted (7%), worked for partner organisations (6%), or were based in organisations that made use of hub services, such as schools (23%). A small number (5%) reported other types of professional links. Participants held a variety of additional responsibilities: 62% had management or leadership roles, 43% worked in administration and 31% contributed technical or operational support. A quarter of respondents indicated they had other types of responsibilities not listed.

60% of participants were directly involved in teaching and learning activities, Of these, the majority (72%) reported travelling between different sites or venues as part of their role. Others worked at a single site (20%), from home (2%), or in other unspecified arrangements (5%).

Whilst data on personal characteristics relating to gender, ethnicity, age and disability were requested within the questionnaire, relatively few respondents completed these, making it hard to derive helpful quantitative conclusions from the available figures.

However, to support the research team's aim of reflecting varied lived experiences, wherever possible we have highlighted perspectives relating to rurality/urbanity, geographical scope and location, together with organisational responsibilities and seniority.

Overall, then, whilst there will be an element of double counting in situations where anonymous questionnaire respondents potentially also participated in the initial survey and interview phases, it is reasonable to assume that well over 150 professionals working in different areas of the UK music education sector contributed their views during the course of the research. These perspectives are further enriched by information gathered during the Phase 1 desk-based survey and the Phase 5 case study vignettes presented throughout this report.

4.2 Participant awareness of relevant organisations and initiatives

Questionnaire participants were presented with a list of music and arts-related organisations and initiatives active in the field of environmental sustainability. They were asked to tick all those whose environmental work they were personally aware of (Table 2).

Table 2: Questionnaire respondents' awareness of relevant organisational initiatives (n=107)

Music Mark	96%
Music Education Council	37%
Julies Bicycle	23%
Making Music	22%
Music Declares Emergency	9%
LIVE Green	6%
Vision: 2025	6%
A Greener Festival	4%
Climate Music Pact	4%
Creative Carbon Scotland	3%
Earth Percent	3%
Ecolibrium	3%
Sustainability in Production Alliance	3%
Albert Consortium	2%

Almost all questionnaire respondents were aware of Music Mark's current campaign in this area. This is perhaps unsurprising, given that they were likely to have received information about the questionnaire via Music Mark publicity. However, there was also evidence of significant levels of awareness amongst some respondents of the environmental/sustainability-related work of other organisations, including the Music Education Council (37%). This might have been due to activities such as the Council's *Music Industry and Climate Change Seminar* held online in November 2021 (Castang, 2022). Awareness of the environmental and climate-activities of the UK's membership organisation for leisure-time music Making Music² was also notable (22%). 23% of questionnaire participants were aware of the work of Julie's Bicycle, which takes action on environmental issues within arts and culture. One interviewee told us that their hub was signed up to receive Julie's Bicycle newsletters and were starting to make use of a greener festivals checklist provided through this organisation.

² For an overview of Making Music's activities, including information on their Climate Change Network, see <https://www.makingmusic.org.uk/resource/climate-change-how-music-groups-can-get-involved>

Across the various forms of data collection there was also notable awareness of further, regional and local organisations. Some successes shared by interviewees included working with local forest schools or wider environmental initiatives, such as *Clean Air Day*, which enhanced their environmental sustainability efforts.

One suggestion would be for leading music education sector organisations across the UK to further alliances with organisations working in other areas of the music world such as those above. Developing stronger partnerships could capitalise on this existing awareness. Goals and resource pooling are especially important given the multifaceted nature of contemporary music service and hub activities, and the fact that many in the music education workforce may also be involved in other areas of the music industry.

5 Organisational policy development, enactment and monitoring

37.8% of questionnaire respondents reported that one or more of the hubs/services with which they worked had an environmental sustainability policy or statement in place (Figure 1). 28.9% of respondents told us that one or more of their organisations were currently developing policies. This resonated with our initial web searches, which had similarly suggested that some hubs/services were drafting documents, planning to include environmental sustainability within their annual improvement plans, or were undertaking ‘needs analyses’ to create them. However, 16.7% of questionnaire participants stated that no environmental sustainability policy or statement existed within their organisation(s). Moreover, a further 16.7% left the question blank, suggesting that they might not know the status of such policies.

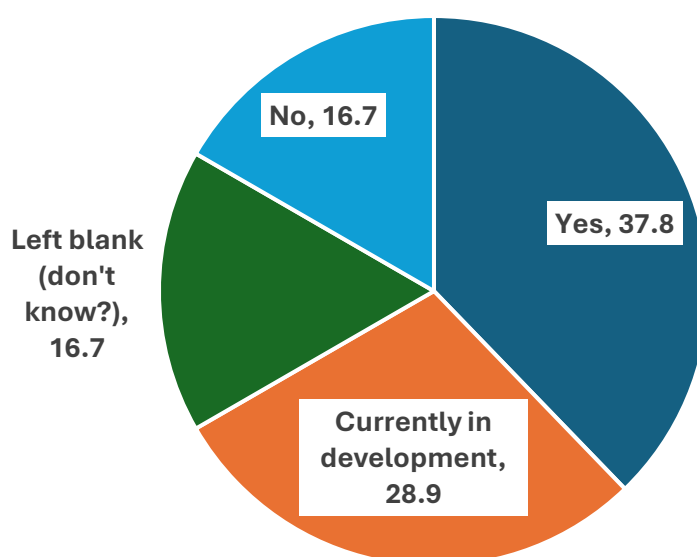


Figure 1: Questionnaire responses for ‘does the music service/hub with which you work / do any of the music services/hubs with which you work have an environmental sustainability policy or statement?’ (n=90)

5.1 Evidence of the influence of national and local policy on practice

Within the questionnaire, respondents with managerial responsibility were asked to rate the impact that various national musical and educational policies, along with other forms of organisational influence, had made on hub/service policy.

Amongst those respondents based, or working within, England, it was perhaps unsurprising that the sustainability requirements and expectations of Arts Council England and the English *National Plan for Music Education* were most frequently cited (with 30% and 28% of participants rating them as ‘very’ influential on their own policy development respectively). This corresponded with the findings of Phase 1 web searches, which suggested that the publishing dates of a significant number of policies located within England were implemented in the wake of the National Plan and HLO application process. It was noted that quite a few of these English policies were quite similarly worded and covered similar areas, relating to travel and transport, paper and plastic usage, energy and water usage, office supplies, and musical equipment (but see below for further examples).

11% of questionnaire respondents rated policies and processes adopted by their local authority as being ‘very’ influential. Separately, one manager told us they needed advice on ‘how to build a policy as part of a bigger machine e.g. local authority’. Other influences on policy development came from sector organisations such as Music Mark and Making Music (11%). The requirements and expectations of other bodies contributing to funding hub/service activities, the English Department for Education’s *Sustainability and Climate Change Strategy*, and the work of environmental organisations such as Greenpeace and Friends of the Earth were each regarded as ‘very’ influential on policy by 9% of respondents.

Although not noted within the questionnaire data, our initial web searches also suggested that a further influence on English hubs’ and services’ policy development had been the sustainability statement provided by music teaching and learning platform Charanga³. This was directly linked from a number of organisations’ web pages, apparently in lieu of a local policy document.

Whilst questionnaire participants working in Northern Ireland, Scotland and Wales also had the opportunity to comment on the influence of relevant requirements or expectations of Arts Council Northern Ireland, the *New Strategy and Action Plan for Education for Sustainability* in Northern Ireland, Creative Scotland, Scotland’s *Learning for Sustainability Action Plan*, the Welsh *National Plan for Music Education* and the *Curriculum for Wales* (alongside the wider range of local, national and third-sector influences common across the UK), none chose to do so. However, the influence of

³ See: <https://charanga.com/site/policies/charanga-environmental-sustainability-statement/>

these policies was evident within a small number of textual comments and interview responses. For instance, one questionnaire respondent noted:

I don't know about music hubs and services, but we are an RFO (regularly funded organisation) in Scotland and have to report on our environmental impact and carbon footprint to Creative Scotland every year, and it is a part of all their funding priorities and our evaluations as a result.

Additionally, we were told by a representative of a music sector organisation active in Scotland during interview that they regularly attend meetings of a Cross-Party Group in the Scottish Parliament to discuss environmental sustainability.

Whilst we did not identify any qualitative comments relating to the influence of the policy landscape in Northern Ireland, participants working in Wales provided a range of perspectives on recent local and national policy initiatives. One interviewee from a Welsh music service commented that their local council had a strong focus on environmental sustainability. However, they felt that this did not filter into music services or precipitate any support for strategic decisions in the sector:

I don't think it's something that is remotely talked about in Wales at the moment in terms of music services, specifically.

Whilst it was noted that their music service had previously benefitted from a Welsh government scheme which enabled them to buy an electric van at a discount, this interviewee noted that the issue of travel emissions was heightened due to peripatetic teachers needing to drive to many schools as a consequence of reduced funding:

The reason the picture is as it is now is because practically all of the support has been stripped away. So now, if there's only one little one that wants to learn cello in that school, well, you just drive to that school for 20 min. So obviously, when it was all free - I reckon that would be an interesting thing to look back... to [the] seventies and eighties, I bet peris were doing a heck of a lot less travelling.

The need for policy-makers and organisations to prioritise, fund and enact environmental sustainability support was also highlighted by the same Welsh music service interviewee:

The thing that is going to have the biggest impact long term is for the organisations that host music services, so local authorities and councils and governments. That's where the action needs to be taken because [of] the policies and the funding that filters down to music services. That's what affects the decisions that we're able to make.

Currently, this support does not appear to always be felt. For example, a member of another Welsh music service described their limited collaboration with Arts Council Wales:

Actually, I have to say that the Welsh Arts Council's communication with us is non-existent, yeah. So it tends to be other people that tell me about Welsh Arts council stuff rather than them telling me themselves.

It is understood that efforts to establish a National Instrument Library in Wales have made progress and that some young people now benefit from instruments acquired via this scheme (McCourt, 2024). This will no doubt be a positive development in terms of reducing duplication and making sustainable use of existing instrument stocks. However, this particular interviewee expressed frustrations relating to their personal experiences of the initiative:

We're supposed to set up a National Library of [the instruments which were] bought. And because it was all done through procurement, through the Welsh Government, they have all the details of what was bought and from where and where it went to. So it'd be very easy for them to sort that out. But it hasn't happened yet. It's been all talk so far, you know.

Another Welsh initiative occurred in 2022, when 53 000 carbon-neutral instruments, consisting of 35,000 pBuzz instruments (a new form of 'brass' instrument, created in plastic) and 18,000 pCorders (plastic recorders) were manufactured and delivered to schools in Wales. The Welsh *National Plan for Music Education's* 'first-experience' programme includes providing all Year 3 pupils with the opportunity to participate in whole class tuition on an entry level brass or woodwind instrument (Welsh Government, 2022a).

This initiative instigated the carbon-neutral manufacturing of instruments in Merthyr. The pMusic Cymru collaboration formed consisting of Warwick Music, Elite (Specialist Supported Employment Provider) and the Merthyr Tydfil Institute for the Blind (MTIB), who assisted in the manufacturing (pBone Music, 2023). One Welsh music service interviewee described this project as a positive example of the Welsh Government prioritising environmental sustainability as part of the instrument pathway. They also noted the wider, positive social impacts of this work:

I think what's been positive about it is that it... obviously gave sort of some additional employment to the people, most of whom had learning disabilities or visually impaired, but also it linked them with the music service and with music in general, and I don't think that you know many of them had had that kind of experience, or had that information before.

5.2 Organisational policy consultation, development and review

In situations where questionnaire respondents (across all nations) had indicated that an organisational policy was in place or under development, those with management responsibility were also asked additional questions about the development of

environmental policies. 48.9% of managers left this question blank, suggesting uncertainty or lack of information. However, close to a third of managers who did respond reported that their policy had been developed internally (i.e. within specific hubs/services), whilst 8.5% noted that they had been adapted from existing external template documents with relatively little local adaptation. A further 10.6% noted that their policy had come about in another way.

When organisational policies were in place or under development, questionnaire respondents with management responsibility were also asked to give information on who had been (or would be) consulted during the process (Table 3).

Table 3: Questionnaire responses on stakeholder consultation during organisational policy development (managers only, n=47)

	Yes	This is planned	No	Missing (don't know?)
Service/hub trustees/governors	27.7%	14.9%	4.3%	53.2%
Music hub/service staff	19.1%	12.8%	12.8%	55.3%
Other service/hub partners	12.8%	10.6%	14.9%	61.7%
Local government/authority	10.6%	8.5%	19.1%	61.7%
CYP	6.4%	14.9%	14.9%	63.8%
Specially-convened advisory group	6.4%	6.4%	12.8%	74.5%
Schools	4.3%	10.6%	21.3%	63.8%
Local community groups	0.0%	8.5%	23.4%	68.1%
Other	0.0%	0.0%	4.3%	95.7%

Many did not answer this question, but according to those who did, the most frequently consulted groups were service/hub governors or trustees. 28% of managers were aware of consultation having been undertaken regarding the policy with these individuals and a further 14.9% noted that this was planned. In fewer cases, similar consultations were reported with music hub/service staff (19.1%), other service/hub partners (12.8%) or the local authorities (10.6%). Consultations with these same groups, as well as schools, were planned in further cases.

6.4% of managers told us that children and young people (CYP) had been consulted, with a further 14.9% planning to undertake this consultation. A growing ambition to consult them in the future was reflected in comments made to us separately by managers regarding the importance of involving families, children, and young people in this area (see the various sections exploring this in more detail below). A minority of managers reported that their organisations had consulted with, or planned to consult, specially-convened advisory groups, community groups or other organisations.

Our questionnaire asked service/hub managers to give qualitative details on how their policies would be reviewed and monitored, and how practical impacts might be monitored. Most commonly, responses indicated that policies would be reviewed by leadership teams; other reviewers included eco-leads, environmental groups, youth council, and trustees. The majority stated that reviews would take place annually, with some reviewed biennially.

When asked if policies include strategies for measuring or monitoring progress or compliance, managers' responses were split. Approximately two thirds stated that such strategies were either currently included or planned to be included in their policies, whilst the remainder of respondents either did not know, or their policies did not include these strategies. Of those policies which were reported to include such strategies, methods employed included the use of SMART objectives and the sustainability values in the English *National Plan*.

Interview respondents and service/hub managers participating in our Phase 1 Spring Summit survey provided a range of viewpoints regarding sustainability policy development, implementation and value. Some considered a policy to be useful:

It helps just to focus people, get everybody on board and—you know—serves as a reminder that this is an approach that we've signed up to, really.

However, several interviewees shared a level of cynicism, as one participant stated: 'this is an area where we come across a lot of eye rolling'. Some felt that policies may be 'tokenistic' and could potentially lack meaningful impact:

I think, in the modern world we all work for organisations that have a policy for this, that, and the other. And it's a real question as to whether any of those policies make a difference to any of our day-to-day working lives. Sometimes they do, sometimes they don't, and I think that is a challenge for all organisations.

Similarly, another interviewee expressed a desire to embed environmental sustainability but, regarding policy, felt that 'we haven't given it the thought that it needs and I mean purely just through time and capacity'.

One interviewee in England felt that the recently introduced Arts Council England requirements had potentially compromised the scope of a previous, more extensive environmental sustainability policy:

Since all of the Arts Council stuff came in, it's now streamlined to the extent that probably it's like everybody else's, because we've gone for less-is-more, because there are so many documents. So—in a way—I think that's constrained us ... The current policy we've got is just kind of bare bones stuff that ticked all of the

[English] Arts Council's boxes, to be honest. So—in a way—it's not as great as it used to be.

Some music service/hub managers told us that they needed more practical guidance to maximise the usefulness of policies in this area. Areas where they told us further guidance would be appreciated in relation to policy development included:

- 'Defined depreciation lengths of time for instruments (types, quality levels etc.)'
- Procedures for handling instruments' end of life and disposal.
- Incorporating instrument repair strategies
- Guidance on national and regional staff professional development
- Good practices for consultation with service/hub trustees, governors, staff, and other partners during policy development



Merton Music Foundation's Youth Council

Merton Music Foundation's Sustainability Strategy

Merton Music Foundation's first ever sustainability strategy was created in partnership with its Youth Council – a group of 13 young people aged 12-18 who attend MMF activities. Recognising that young people will be most affected by climate change, MMF invited the council to take the lead in shaping the organisation's environmental priorities.

The strategy was developed through open discussion, with council members identifying practical and ambitious actions - from reducing paper usage and cutting plastic at events to using local suppliers and prioritising further partnership with

sustainable organisations. These ideas were shaped into a clear action plan, with responsibilities shared between MMF staff and Council members.

Once finalised, the Youth Council presented the strategy to MMF's Board of Trustees, who approved a dedicated budget to help bring their plans to life. The result is a live, evolving document that reflects the values of the young people MMF serves – and holds the organisation accountable through their lens, helping to embed a culture of environmental responsibility across all areas of MMF's work.

Merton Music Foundation's sustainability strategy, together with more information on the work of its Youth Council, can be found here: <https://mmf.org.uk/youthcouncil/>

With thanks to Merton Music Foundation

6 Teaching and Learning-Related Activities

Teaching and learning activities were by far the largest category of environmental and sustainability-linked activities identified during our research. Among these, creative responses to environmental concerns predominated. A very broad range of activities were identified across all forms of data collection. This included smaller, focused activities such as individual concerts, projects or pieces, all the way through to large-scale events such as carnivals, festivals and even a multi-year campaign. Despite the diversity and creativity in evidence, a common thread throughout all such identified activity was its resonance with the concept of *education for sustainable development*:

Education for sustainable development (ESD) gives learners of all ages the knowledge, skills, values and agency to address interconnected global challenges including climate change, loss of biodiversity, unsustainable use of resources, and inequality. It empowers learners of all ages to make informed decisions and take individual and collective action to change society and care for the planet. ESD is a lifelong learning process and an integral part of quality education. It enhances the cognitive, socio-emotional and behavioural dimensions of learning and encompasses learning content and outcomes, pedagogy and the learning environment itself (UNESCO, 2024, online).

6.1.1 The extent and nature of existing sustainability-related teaching and learning activity

There was awareness amongst many questionnaire respondents regarding a wide range of related teaching and learning activities. Additionally, several interviewees expressed how much they valued the inclusion of environmental sustainability within teaching and learning activities. The extent, diversity and commitment towards all such work was perhaps even more notable since only 16.7% of hub/service managers who responded to our questionnaire confirmed that teaching and learning matters were explicitly included in environmental sustainability policies.

Interviewees stressed that successful teaching and learning activities managed to successfully integrate environmental education with music, for instance by engaging children in learning about nature through creative activities. Youth engagement was regarded as vital in all such work, with the active involvement of young people in projects helping to ensure that educational materials remained relevant and engaging.

Table 4: Questionnaire respondents' awareness of activities enacted or planned by music services/hubs with whom they worked (n=72)

	Aware of activities or plans %
Environmentally-themed concert/festival/performance event	27.8%
Instrument repair or maintenance skills workshops for music teachers	25.3%
Making and/or performing with recycled or 'junk band' acoustic instruments	25.3%
Creative work which explores links between music and the local environment	24.1%
Introducing performance repertoire with environmental themes/influences within music hub/service ensembles	21.5%
Instrument repair or maintenance skills workshops for music service/hub learners	17.7%
Organising professional development events/meetings for music teachers linked to environmental or sustainability issues	16.5%
Specially-commissioned musical piece on an environmental theme	12.7%
Producing music teaching and learning materials focused on environmental or sustainability themes	11.4%
Composition/songwriting/music production/recording activities which respond creatively to environmental issues	11.4%
Recycling/repurposing electronic equipment for creative purposes (e.g. 'circuit bending' or 'dirty electronics')	7.6%

Amongst the most common teaching and learning activities identified, 27.8% of questionnaire respondents were aware that one or more of their organisations had staged (or were actively planning) environmentally-themed performance events (Table 4). Additionally, 21.5% reported the introduction of ensemble performance repertoire with environmental themes. A further 12.7% reported that an organisation with whom they worked had commissioned the composition of a musical piece on an environmental theme. 11.4% noted that a hub/service with whom they worked had produced teaching and learning materials focused on environmental or sustainability themes. The production of such resources was also regarded as a key priority amongst questionnaire respondents, including, as one Spring Summit survey participant told us: 'units of work geared around climate change and the natural world'. A further 11.4% also reported hub/service activities which employed composition, songwriting or music production/recording activities to respond creatively to environmental issues.

One interviewee reflected on the potential of such activities to promote environmental awareness amongst their service/hub learners:

That would be my highlight of it. You know, when they're singing about the planet, and the beauty and the diversity of nature. I think that's really lovely.

Similarly, a music hub/service manager at the Spring Summit highlighted the potential for 'educating young people of issues through music repertoire e.g. songs'. Another noted that their Early Years provision had 'a climate change theme this year... shared through song and art forms' and that this was intended to 'educate [our] own staff and students to be environmentally aware'. A further Spring Summit participant identified broad potential for such activities: 'creative responses - info giving for CYP & using music as a tool to support eco-anxiety e.g. songwriting' although they did acknowledge that establishing a 'reduce, reuse, recycle ethos for staff and resources [was] much more important'.

Some questionnaire participants also expressed the importance of portraying environmental sustainability messages authentically through teaching and learning activities:

The biggest challenge is doing these things meaningfully and feeling confident that they are promoting the right mindset and information about climate change, and leading people down a constructive and useful conversation.

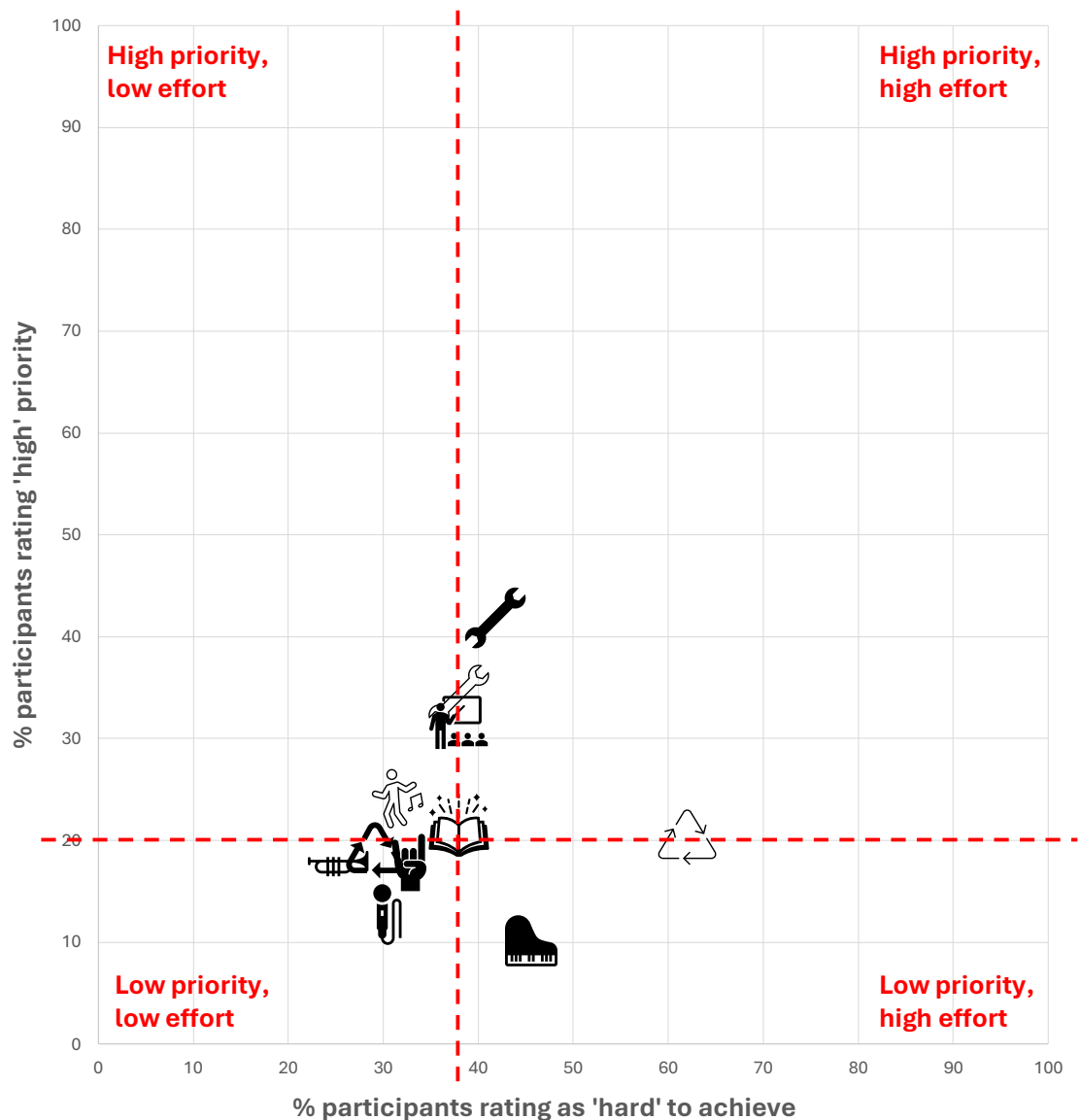
During our initial web searches, it became clear that some existing teaching and learning activities undertaken by music services and hubs have been influenced by their geography, perhaps emphasising local ecologies, landscapes or even specific environmental challenges. These early observations were borne out by our questionnaire data, where 24.1% of participants noted awareness of creative work undertaken by hubs/music services which explored links with the local environment. As figure 2 illustrates, these were regarded by questionnaire participants as having the potential to be 'high priority, low effort' activities – a relatively rare commodity within our overall research findings.

Several interviewees commented on these forms of activity. One noted the importance they placed on teaching and learning activities acting as 'a mechanism to link [children and young people] with their local environment and the organisations in their local areas'. This interviewee, whose music service served locations within a designated Area of Outstanding Natural Beauty, regarded such activities as 'really help[ful] for young people to understand, have a sense of place and value the environment that they live in'. Another interviewee highlighted practical examples, where their service had commissioned a composition linked to a nearby forest, contrasting this location with the urban locale where most of the service's pupils actually lived. Such motivations resonate with the emerging concept of eco-literate music pedagogy, most associated

with American music educator Daniel Shevock (2018). This prioritises connections with local places and musical cultures, and the experiencing of music and nature in conscious, integrated, caring ways. Advice relating to geography-specific circumstances will also be of significant benefit to hubs and services.

A quarter of respondents were aware of activities focusing on making and/or performing with recycled, ‘rubbish orchestra’ or ‘junk band’ hand-made acoustic instruments. One interviewee commented on the potential for creativity and fun resulting from such work: ‘probably children, certainly in our schools, might enjoy whacking the living daylight out of a water bottle more than playing a tambourine, because it's a bit cooler’. On the other hand, the recycling or repurposing of redundant/faulty electronic musical equipment for creative purposes (often referred to as ‘circuit bending’ or ‘dirty electronics’ - see Purves and Himonides, in press) was far less common: only 7.6% of participants reported awareness of such activities within their hubs/service. Figure 2 suggests that this kind of activity is regarded as ‘hard’ but not as a particularly high priority.

Significant proportions of questionnaire participants noted hubs/service activities that went beyond the kinds of environmentally-themed teaching and learning activities outlined so far. 25.3 % were aware of instrument repair or maintenance skills workshops for music teachers taking place or being planned, whilst 17.7% reported similar workshops having been undertaken with hub/service pupils themselves. 16.5% highlighted their services’/hubs’ organising of professional development events for music teachers linked to environmental or sustainability issues. The questionnaire also revealed a clear desire for music services/hubs to expand their activities in all three of these areas. As can be seen on the action-priority matrix in figure 2, all three areas are found just within the ‘high priority, high effort’ zone, emphasising an organisational appetite for more such activities, despite the challenges involved.



Instrument repair or maintenance skills workshops for music teachers		Introducing performance repertoire with environmental themes/influences within music hub/service ensembles	
Instrument repair or maintenance skills workshops for music service/hub learners		Environmentally-themed concert/festival/performance event	
Organising professional development events/meetings for music teachers linked to environmental or sustainability issues		Recycling/repurposing electronic equipment for creative purposes (e.g. 'circuit bending' or 'dirty electronics')	
Creative work which explores links between music and the local environment		Composition/songwriting/music production/recording activities which respond creatively to environmental issues,	
Producing music teaching and learning materials focused on environmental or sustainability themes		Specially-commissioned musical piece on an environmental theme	
Making and/or performing with recycled or 'junk band' acoustic instruments			

Figure 2: Action-priority matrix for teaching and learning activities (n=72)

6.1.2 Barriers and challenges to further development

Participants told us that challenges relating to teaching and learning included an overall lack of knowledge within the sector, exacerbated by uncertainty regarding how to engage with sustainability-focused organisations. As noted, the authentic portrayal of environmental sustainability messages was also a concern, and some perceived a limited scope to such work. As one questionnaire participant put it: ‘this is about behavioural change which is much more effective than writing a song about the sea’. Such a sentiment is reflected in the location of ‘specially-commissioned musical piece on an environmental theme’ in the ‘low priority, high effort’ zone of figure 2, though it should be noted that several case study vignettes report examples regarded as highly successful.

Similarly, awareness amongst colleagues of environmental issues and achieving wider staff buy-in were stated as barriers. An interviewee echoed this view, sharing: ‘I think a lot of our colleagues would say, is that really our job on top of things, you know?’.

This need for greater awareness and ‘buy in’ was also noted to extend to school partners, who might be involved in leading activities using prepared materials and thus who might need guidance on how the various elements could work together. One music service partner commented on how their specially-developed, environmentally-themed song and music-based resources had initially been met with a level of uncertainty in some schools:

Because it doesn't talk about, you know, octaves or scales, you know... we do talk a little bit about the music elements, but [for several years after launch] music teachers... would kind of look and go ‘this isn't a music curriculum resource, so I don't know what I would do with it. I would hand it to the science teacher’. So that's kind of been our challenge.

Overall, however, a lack of funding and time were regarded as amongst the biggest barriers to these kinds of teaching and learning activities. As one questionnaire respondent put it:

The same as anywhere: so much time, energy and money is wrapped up in simply keeping the day-to-day running, it's difficult to find the resources to put into things like this.

However, this participant did also reflect that this was ‘not much of an excuse, though!’. Lack of time was shared as a barrier by an interviewee: ‘I have a willingness to do it, but I haven't had the time to stop and think about how to.’

Staff capacity was also a key area of concern, with one participant noting: ‘Lack of management capacity to support anything more than the immediate day to day’. Another stated: ‘we don't have the capacity of staff for such luxuries’. Such challenges

are potentially compounded by the freelance-nature of many peripatetic teachers, which sometimes makes it difficult to mandate professional development training on curriculum content, let alone environmental matters. For instance, one participant noted:

Hubs can organise sessions but they can't force teachers to attend. It is not a priority for many teachers, particularly when we are self-employed so CPD is not compulsory.

There is, then, a potential tension with the desire—as expressed by many questionnaire participants (see above)—for hubs/services to undertake even more staff professional development in this area.

6.1.3 Examples of good practices and effective collaborations

Suggested possibilities to overcome some of these challenges included collaboration, effective partnership projects and sharing of resources and training opportunities. One such example of positive collaboration was shared by an interviewee:

we have started linking the repertoire and engagement with music with forest schools, which... go very well together... and the schools love it, you know they think like, 'Oh, this is fab'.

A music hub/service manager at the Spring Summit mentioned, 'sharing of resources across hubs/music services', whilst another emphasised the 'maximising of a collaborative approach when engaging artists'. A further manager noted the importance of being able to access 'service specific case studies of good practice'. They also wished to see 'environmental sustainability' training or networks that meet frequently to keep it at the forefront of our minds and planning. Expert advice and knowledge shared'.

Across all forms of data collection, the active involvement of children and young people in planning and enacting teaching and learning was also identified as a means of ameliorating some of the noted barriers and challenges. As one Spring Summit survey participant stated, 'youth voice responses from CYP [should] feed into this - our own youth voice surveys tell us climate anxiety is top 1 or 2 concern for our young people'. Another emphasised the importance of 'providing opportunities for CYP to engage with events, learning programmes around environmental sustainability'. A third noted the centrality of 'empowering young people'.

Active youth engagement was regarded as particularly vital to ensure that educational materials remained relevant and engaging. There were also suggestions that rehearsals, concerts and projects mounted to respond to environmental issues should feature young people in organising and leadership roles. Similarly, creative work such as songs and compositions dealing with environmental themes would benefit from direct responses from young people themselves. As one Spring Summit survey participant put

it, activities should focus on 'giving pupils an outlet to express their views to the wider public via song/composition/commission - raising awareness through musical expression'.



Junk Percussion

Portsmouth Music Service has championed sustainability through its junk percussion programme. The school-based workshops provide children and young people with the opportunity to explore rhythm through using found sounds and recycled materials, from watercooler bottles, broom sticks and buckets to drainpipes and washing machine drums. Workshop leaders demonstrate how everyday waste can be transformed into a musical treasure trove. The workshops inspire students to think differently about waste and the environment and to look at junk with new eyes for its musical potential all whilst developing their musical skills.

This hands-on approach extends into performance projects like the Music Service's vibrant *Recycling Rumba*, a song inspired by children with a clear environmental message about recycling. The video example features young children creating instruments as part of cross-curricular project and performing with these instruments - the video is both a celebration of creativity and a call to action on recycling, linked to the Hub's *One World* programme inspiring children and young people to make a difference to safeguard their planet's future.

https://youtu.be/_LLP8ZRhsBs?feature=shared

With thanks to Portsmouth Music Service



Waltham Forest Music Service's Nature and Song Projects

Waltham Forest Music Service (WFMS) has long been committed to integrating environmental awareness into its music projects, and its collaboration with Kate Stillitz and the RSPB Meadowsong Project offers a prime example of this initiative. The Meadowsong Project used song as a powerful tool to connect children and schools to environmental issues, raising awareness of indigenous trees, plants, birds and insects. Meadowsong allowed students to engage with environmental topics in a creative and meaningful way. The experience highlighted how music can serve as an effective medium for fostering environmental awareness and a sense of stewardship among young people.

Building on the success of the Meadowsong Project, WFMS commissioned Kate Stillitz to work with local schools to create 'Songs of the Forest', a song cycle based on the area's natural heritage. This collaborative project gave Waltham Forest students the opportunity to explore local nature areas and translate their experiences into music. By writing songs about the local environment, the children not only deepened their understanding of their surroundings but also became active participants in environmental advocacy.

Through these initiatives, WFMS demonstrates how music can serve as both an educational tool and a catalyst for environmental action. By involving children in the creation of music focused on local nature, WFMS is promoting a generation of environmentally conscious young people, using song as a means of connecting them to the world around them.

With thanks to Waltham Forest Music Service



Story Telling

Portsmouth Music Service's *Graham the Seagull* initiative is an engaging educational initiative designed to introduce environmental awareness to Key Stage 1 students through music and storytelling. Central to the story is the character Graham the Seagull, whose adventures highlight various ways he could care for the environment. Delivered across the city through the *Musicing Around!* programme, *Graham the Seagull* provides interactive workshops where children can participate in storytelling interspersed with songs and music-making activities. The sessions aim to develop core musical skills while instilling a sense of environmental responsibility in young learners. By combining creative arts with important ecological themes, *Graham the Seagull* project fosters both musical development and environmental consciousness among Portsmouth's youngest residents.

<https://youtu.be/QibQG-512tM?feature=shared>

With thanks to Portsmouth Music Service



Picture credit: Tracy-Curtis, used with permission

Isle of Wight ‘Our World Our Future’ Mardi Gras

The Isle of Wight Mardi Gras, held in July 2022, focused on environmental sustainability and musical engagement. The event, themed ‘Our World Our Future’ was organised by the New Carnival Company with Southampton and Isle of Wight Music Hub in collaboration with schools and various local community groups, artists and makers. It aimed to educate participants about the 17 UN Sustainability Development Goals through creative expression and performance.

Over 1,000 participants, primarily children and young people from more than 20 school and community groups, took part in the parade. Each group represented a different sustainability goal, such as climate action, wildlife conservation, and responsible tourism. The preparation involved learning about their assigned topics, designing costumes, practising dances, and rehearsing the event's anthem 'Our World Our Future'. Composed by Jo Downs, its lyrics were developed through workshops with children discussing their thoughts on the future and environmental issues.

The parade was notable for its commitment to sustainability, with no petrol or diesel vehicles used. One school utilised an electric car, while other groups employed, trolleys, pushchairs or bicycles. Costumes were made from sustainable materials, with two large costumes comprising over 75% eco-friendly components.

With thanks to Southampton and Isle of Wight Music Hub

7 Transport and Logistical Matters

Within transport and logistics, despite the considerable work already undertaken on the task, the revising of teaching timetables and itineraries to make staff travel more efficient still came out as a particular, if challenging, priority across all phases of the research. Coordinating travel for peripatetic teachers is inherently challenging due to the nature of their work, limited funding and the possibility of unpaid travel time. Many services cover wide geographical areas and limited public transport options in rural areas make sustainable travel difficult for both students and staff. Concerns were also raised regarding disadvantaging families by moving venues/teaching bases. Limitations within some financial schemes were also noted, such as the perceived difficulty of obtaining cargo bikes through 'Cycle to Work' schemes. All these factors are reflected in the absence of any activities in the 'high priority, high effort' zone of figure 3, with the majority categorised as 'low priority, high effort'.

7.1.1 The extent and nature of existing developments relating to transport and logistical matters

Many questionnaire respondents felt that music hubs and services had already extensively considered the viability and applicability of online staff meetings, online individual/small-group tuition, online ensemble rehearsals and online meetings with parents/carers. In the case of online staff and parent/carer meetings, these were positioned in the 'low priority, low effort' zone of figure 3. Motivations for these extend further than matters of environmental sustainability, of course, and online staff and parental meetings were regarded as reasonably easy and convenient legacies of the Pandemic.

On the other hand, the complex musical and technical challenges of online tuition and ensemble work during COVID were commented on by many. Nonetheless, some participants across the various strands of data collection did highlight the nuanced potential of digital synchronous delivery to be part of a wider suite of sustainability measures. By contrast, Similarly, hub/service managers attending the Spring Summit identified the potential of digital administration to reduce the need to transport/post physical copies of marketing information, forms, applications and registers.

Table 5: Percentage of questionnaire participants who reported moderate or a great deal of action in relation to the following areas (n=65)

	%
Online staff meetings	84.7
Online individual or online small-group tuition	73.9
Revising teaching timetables and itineraries to make staff travel more efficient	64.6
Situating teaching/rehearsal/performance venues on the basis of public transport options	46.1
Online meetings with parents/carers	43.1
Financial support for staff to purchase bicycles (e.g. Cycle To Work scheme)	41.6
Online ensemble rehearsals	41.5
Centralising teaching venues to reduce the number of sites visited by staff	38.4
Signposting public transport to teaching/rehearsal/performance venues	35.4
Staff usage of public transport	27.7
Staff car sharing	26.2
Financial support for staff to purchase personal electric vehicles (e.g. salary sacrifice scheme)	24.6
Making it more attractive for concert audiences to use public transport (e.g. via event timings or reduced ticket prices for public transport users)	21.6
Use of public transport by students for music service/hub concerts, tours, trips etc	21.5
Improving students' ability to transport instruments to lessons/rehearsals via walking, cycling or using public transport (e.g. the provision of more transportable 'gig bags' etc)	21.5
Making active travel options (e.g. walking, cycling) more viable for staff (e.g. providing appropriate gig bags, secure cycle storage)	18.4
Staff access to electric vehicles owned by the music service/hub/local authority etc	7.7
Provision of electric vehicle charging points at music service/hub facilities	7.7

Some 65% of respondents felt that music services/hubs had made moderate or extensive progress on revising teaching timetables and itineraries to make peripatetic staff travel more efficient (Table 5) (although see contrasting perspectives below). Again, there may be a range of reasons for such measures. Figure 3 reveals that there is still an appetite for more work in this area, with considerable number of questionnaire participants regarding it as a high priority. In particular, many peripatetic teachers will naturally develop close working relationships with particular schools, teachers and pupils - possibly over long periods of time. Despite any potential for financial, timing, or environmental benefits, there will be an understandable reluctance to disrupt these valuable links.

46.1% of respondents noted that services/hubs had undertaken moderate or more extensive work to situate teaching, rehearsal or performance venues on the basis of public transport options. 41.6% were also aware of hub/service support for staff to purchase bicycles and almost a quarter of managers told us that their environmental sustainability policies promoted such schemes. Examples of further good practices shared by participants included the use of digital learning resources and virtual performances, which in some cases have allowed organisations to further their work sustainably and reach a wider audience in the process.

38% of managers reported that their environmental policies encouraged revising teaching timetables and itineraries for efficiency and the same proportion also noted that these policies promoted online staff meetings. Additionally, over a quarter noted that policies covered the use of online one-to-one/small group tuition and parents' meetings. Despite individuals' reliance on cars, as noted below, 22% of managers still reported that car sharing was referenced in their environmental sustainability policies.

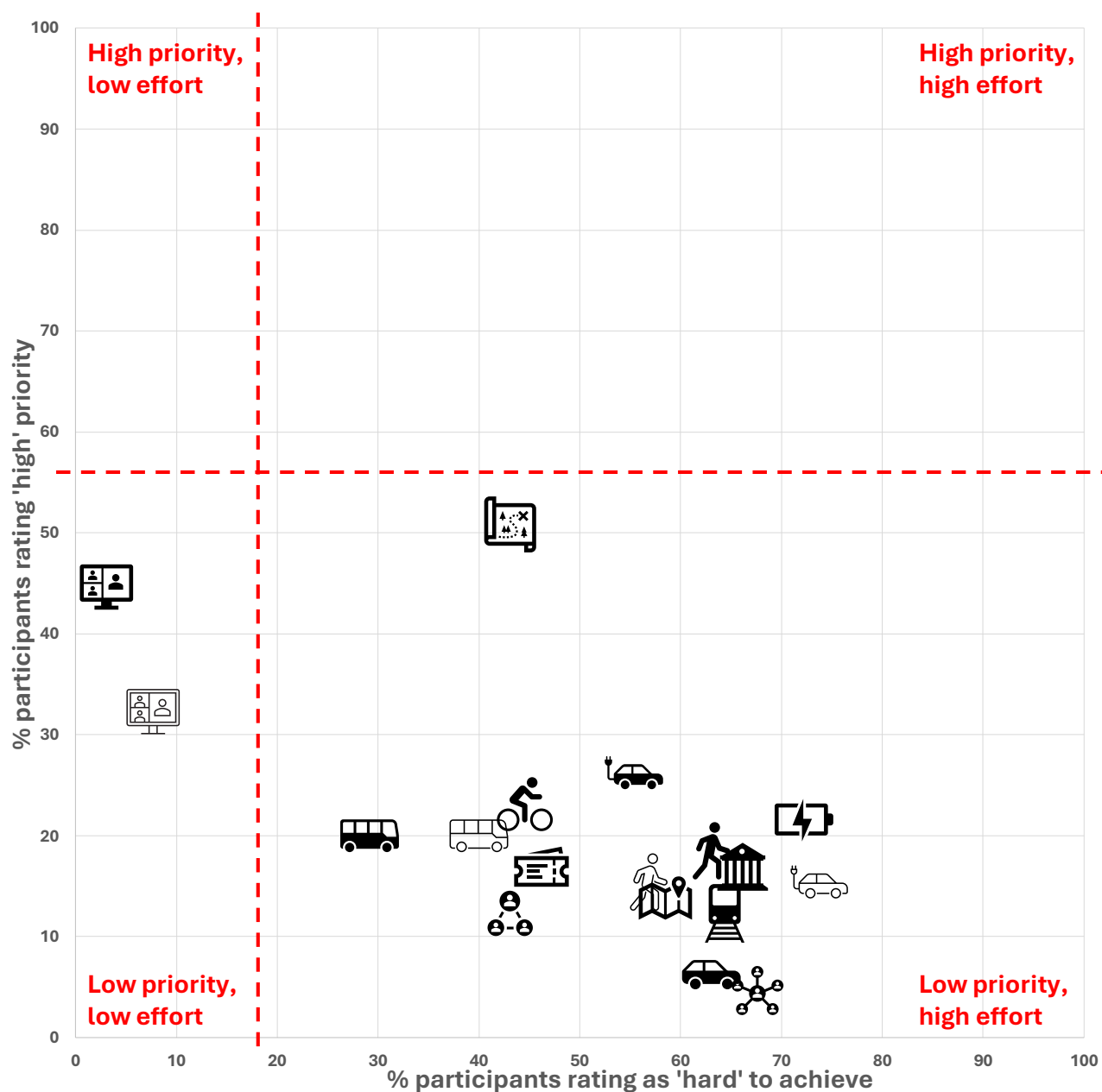


Figure 3: Above: action-priority matrix for transport matters; below: key to icons (n=65)

Staff access to electric vehicles owned by the music service/hub/local authority etc		Improving students' ability to transport instruments to lessons/rehearsals via walking, cycling or using public transport (e.g. the provision of more transportable 'gig bags' etc)	
Provision of electric vehicle charging points at music service/hub facilities		Financial support for staff to purchase personal electric vehicles (e.g. salary sacrifice scheme)	
Online ensemble rehearsals		Making it more attractive for concert audiences to use public transport (e.g. via event timings or reduced ticket prices for public transport users)	
Centralising teaching venues to reduce the number of sites visited by staff		Financial support for staff to purchase bicycles (e.g. Cycle To Work scheme)	
Staff usage of public transport		Online individual or online small-group tuition	
Staff car sharing		Revising teaching timetables and itineraries to make staff travel more efficient	
Use of public transport by students for music service/hub concerts, tours, trips etc		Signposting public transport to teaching/rehearsal/performance venues	
Making active travel options (e.g. walking, cycling) more viable for staff (e.g. providing appropriate gig bags, secure cycle storage)		Online meetings with parents/carers	
Situating teaching/rehearsal/performance venues on the basis of public transport options		Online staff meetings	

7.1.2 Barriers and challenges to further development

Many respondents stated that lack of funding was a key barrier to improving sustainable travel practices, specifically with regard to sustainable vehicle options. Perceived limitations with 'Cycle to Work' schemes apparently excluding cargo bikes and teachers' non-eligibility for salary sacrifice for electric car leasing were also mentioned. Overall, whilst the equivalent figure for Cycle To Work schemes was higher (see above), some 24.6% of questionnaire participants still felt that moderate or a great deal of action had

been so far undertaken by hubs/services regarding financial support for staff to purchase personal electric vehicles.

The restricted possibilities of using public transport due to limited routes and timetabled services, compounded by the need to transport heavy equipment, were also mentioned by many across all phases of data collection. In fact, it was perhaps surprising that as many as 27.7% of questionnaire participants indicated that they had witnessed moderate or greater action on facilitating staff usage of public transport. Just under a third told us that the staff use of public transport was covered in their policies. Moreover, 21.5% of participants reported moderate or greater use of public transport by students for music service/hub concerts, tours, and trips. However, very few managers reported that this was something covered in policy.

Within Scotland, children and young people benefit from free bus travel and one interviewee told us that they had observed increased participation in extra-curricular musical ensembles as a result, although timetable frequency and reduced evening services might still limit what was possible. It will be interesting to see whether a new initiative to offer Scottish children and young people free ferry travel (Transport Scotland, 2025) might offer not only sustainable travel benefits but also additional possibilities for site-specific creative work.

Across the UK as whole, however, the geography of rural areas continues to complicate public transport usage and provides significant challenges. One questionnaire respondent spoke for many when they stated:

There is very little public transport in our county and many geographically isolated areas which means that car travel is really the only viable option. [The] amount of equipment is another issue when it comes to public transport or bicycles etc.

This view was echoed by several interviewees, with one noting ‘this is a standard musician's problem, like how do you shift gear without, you know, emissions, and you can't really shift heavy gear without a car.’ In a bid to address such matters, one questionnaire participant had, however, specifically bid for a cargo bike for their hub's use and one interviewee told us of their staff's occasional use of regulated e-scooters.

Despite the efforts to review peripatetic schedules noted above, other participants shared the difficulty of travelling between several schools within a day: ‘schools are not close to each other. It would not be possible to create a timetable that included several schools a day if the teacher had to travel by public transport or bicycle’. The scale of this issue was further reinforced by an interviewee from a rural area: ‘some peris are in—and this is not uncommon—between 23 and 25 schools a week’. Unpaid travel time was

also shared as a concern, with one respondent noting: 'a lot of wasted time travelling where staff costs are not being recouped by delivering sessions / generating income'.

Perspectives gleaned through different lived experiences in terms of geographical scale and/or rurality came to the fore in many individual participants' questionnaire and interview responses:

I work across three areas - a multi-town local authority, a rural local authority and an inner-city local authority only connected by a motorway. There are little to no reliable public transport links between the areas, and I can't afford to buy an electric vehicle.

The location of the music hub means not all of the teaching locations can be accessed by public transport. Some of the pupils are also in rural areas with poor public transport and we already find encouraging them to rehearsals difficult enough. Better quality funding for the service and public transport might help this.

We are a large area with poor public transport links and council who have to make [multiple] million in cuts.

We are a rural area - when every journey to a school requires a car, and most tutors cannot afford electric, nor do most schools have charging points, it is difficult to talk the talk without walking the walk. I'd rather be seen to set a good example than 'preach' - so practical activities around recycling and repurposing seems a better way in.

I travel widely rurally between schools and music hubs are not asking peripatetic staff about their travel data at all. There is no consideration to scheduling work in schools that are nearby for example.

The potential impact on schools and families regarding changes to peripatetic travel arrangements and the siting of tuition/ensemble activities was a common theme:

If we moved evening/weekend activities away from our central base, we would always disadvantage someone. We are already accessible by public transport but the cost of this often excludes some of our families.

You've got some areas that might have a bus once every three hours, two days a week, or something like that. And a lot of households in rural poverty. Yeah, so I'd say that is definitely a challenge. And it's a challenge for all schools cross country in terms of, actually, you know, physically getting [pupils] out. But how do we do that also, in a way that's environmentally sound rather than you know, hundreds of coaches.

A lot of our parents don't have cars. So although that helps with the environment, it means it means that trying to get people to central places is a real challenge... We very rarely pay for coaches, because... that's not what we would want to do.

The only way the way I could see it working is if we ended up in a situation where schools could accommodate more teachers at one time, so that teachers could travel together. But the reality is a lot of schools don't want one teacher in, let alone two teachers. So... I'm fascinated to know how people are actually accommodating that whilst working with the challenge of you know, schools having to pay for lessons, parents having to pay for lessons... You're very much at [their] beck and call really, as to when they will accommodate teachers coming in.

7.1.3 Examples of good practices and effective collaborations

In terms of solutions, one participant shared their approach: 'staff travel is a big cost and CO2 generator in our area. We are looking to develop more of our in-house teaching offers, where we provide resources, training and equipment for schools to deliver their own sessions'.

Amongst interviewees, some also varied location to ease travel:

Our approach is to move it around to make sure different people in different parts of the borough can access things easily, so we don't just have one central [site]. We'll do something in the north of the borough. We'll do something in the south of the borough. We'll do some bits around which hopefully does make it much easier for people to come to, especially just by walking and bringing kids in that way.

Other successful solutions shared by interviewees included: clustering teaching assignments to reduce travel distances, use of online meetings to minimize travel, and use of digital resources and virtual performances, which has allowed organizations to continue their work sustainably and reach a wider audience. However, conversely, several interviewees held the sentiment that the music hub's offering should be mostly face-to-face:

My instinct is that music inherently is a face to face activity ... I would say to Hubs, you know your DNA, your *raison d'être* is to deliver - and I would add the word here – 'face-to-face' wherever possible, high-quality music.

Hub/Service managers told us that they would welcome further suggestions and guidance in all these areas. Indeed, this area seems to be a particular challenge for services/hubs in relation to environmental sustainability measures and, although we are pleased to be able to offer a range of possible suggestions and good practices, as a

sector there is far more to be done in relation to transport and logistical issues. There is a particular need for creative thinking about venue locations, along with transport links and methods.



A pioneering teacher-led music technology delivery model

At Leicestershire Music, we've proudly championed a pioneering teacher-led music technology delivery model, developed by Bradley Smith over eight years ago. Originally centred on whole-class turntablism projects, the approach has evolved into a flexible, classroom-ready system enabling non-specialist teachers to deliver high-quality music tech lessons independently. By reducing the need for weekly in-person delivery, the model cuts staff travel—boosting reach while supporting environmental goals.

From turntablism projects alone, we estimate over 5,000kg of CO2 emissions have been saved. The model has allowed us to reach more pupils and classes—especially in rural areas—while upskilling teachers and embedding long-term capability in schools. Its success led to increased demand, prompting expansion of our music tech team, while also freeing senior staff to focus on strategic development.

Now adopted by 11 other music services nationally, this scalable, sustainable model stands as a leading example of innovation, environmental responsibility, and value for money in music education.

With thanks to Leicestershire Music

A zero-emission delivery service

Waltham Forest Music Service (WFMS) has adopted environmentally sustainable practices in its instrument delivery operations by partnering with ZED, a zero-emission delivery service. ZED utilises electric vehicles and bike carriers to transport musical instruments across the borough, significantly reducing the environmental impact of these activities. The use of electric vehicles ensures that no harmful emissions are released during transport, contributing to cleaner air and a reduction in the borough's carbon footprint. Additionally, the bike carriers provide a sustainable option for shorter distances, further decreasing reliance on fossil fuels. This approach not only supports WFMS's commitment to environmental responsibility but also aligns with the broader goals of promoting green transport solutions within the community. By integrating these eco-friendly practices, WFMS sets a strong example of how local services can reduce their environmental impact while maintaining efficient, reliable operations for the benefit of students and schools across Waltham Forest.

With thanks to Waltham Forest Music Service

8 Other operational matters

Across all phases of data collection, participants were aware of positive developments, barriers/challenges and good practices in a wide range of operational areas.

8.1 The Extent and Nature of Existing Developments Relating to Operational Matters Beyond Transport and Logistics

There was good evidence of the existing of routines for the tracking and regular inspection, repair and maintenance of equipment and musical instruments (Table 6). 77.9% of questionnaire participants noted that hubs/services had made moderate or more extensive efforts to routinely repair faulty equipment and musical instruments, with 57.6% noting similar efforts to establish pro-active inspection and maintenance regimes.

Table 6: Percentage of questionnaire participants who reported moderate or a great deal of action in relation to the following areas (n=59)

	%
Routine repair of equipment and musical instruments when found to be faulty	77.9
Paper waste reduction (reduced printing/photocopying and using copies for longer, use of email/online resources instead of printing, online publicity information)	72.9
Recycling of paper, plastic, metal and cardboard (e.g. paperwork and packaging)	66.1
Energy usage in the working environment (use energy efficient lighting, heating, air conditioning, switching these off when not in use etc)	64.4
Arrangements for routine repurposing, donating, recycling or disposing of equipment, musical instruments and accessories (e.g. cases) no longer required or fit for purpose	59.3
Evaluating up-front costs for instruments and equipment against resilience/longevity and the potential for repair	59.3
Pro-active inspection and maintenance regimes for musical equipment and instruments (to keep equipment functioning correctly for longer and lessening the likelihood of failure)	57.6
Procurement of more sustainable paper and office supplies (e.g. recycled paper and stationery, refilled toner cartridges, fairtrade refreshments etc)	54.2
Recycling of electronic equipment	52.5
Collaborating with other local organisations to pool/share resources and avoid purchasing duplicated equipment and instruments	45.8
Improvements to buildings used by the music service/hub (e.g. improved insulation, draught proofing, ventilation, better glazing, water usage, installation of solar panels)	37.3
Energy usage by IT and specialist equipment (e.g. selecting energy efficient audio/music technology/recording studio equipment, switching off when not in use, recharging less)	37.3
Consideration of the environmental sustainability practices of third-party venues hired by the music service/hub (e.g. for teaching, rehearsal and performances)	28.8
Providing professional development opportunities for those working for or with the service/hub to learn more about environmentally-sustainable working practices	27.1
Allocating a dedicated budget to support investment in more environmentally-sustainable equipment and working practices.	23.7

Moderate or more extensive efforts were noted by 59% of questionnaire respondents regarding the repurposing, donating, recycling or disposing of equipment, musical instruments and accessories no longer required or fit for purpose. Several key 'R's of sustainability were in evidence. Participants were aware of efforts by hubs/services to *rethink* procurement by balancing initial cost against long-term resilience and repair potential (59%) and by switching to more sustainably-produced paper and/or fairtrade office supplies (54%). Close to three-quarters noted moderate or more extensive efforts by hubs/services to *reduce* paper waste throughout the organisation. Close to two-thirds noted similar efforts towards reduced energy usage in the working environment (though see below for more on this). Two-thirds also noted concerted efforts to *recycle* paper, plastic, metal and cardboard. Similar efforts to recycle electronic equipment were noted by just over half of respondents.

Examples of efforts made by participants and their organisations to meet these objectives included moving to digital administration systems to remove the need for paper-based application forms, parental communications, event sign-up sheets, invoices, registers, marketing and publicity information. Simply reminding staff to reconsider the number of paper copies needed to support their work had also been effective for some. Other initiatives included schools-based instrumental loan schemes and collaborations with repair specialists to maintain instruments efficiently. In a few cases, solar panels had been installed on service/hub buildings. Ideas to support with instrument maintenance included working with local charities to recycle instruments in creative ways, linking with repairers/trainee repairers, and developing partners to help re-distribute surplus resources to those in need.

Table 7: Questionnaire respondents with management responsibilities reporting that the following matters were included in their environmental sustainability policy (n=34).

	%
Paper waste reduction (reduced printing/photocopying and using copies for longer, use of email/online resources instead of printing, online publicity information)	58.8%
Recycling of paper, plastic, metal and cardboard (e.g. paperwork and packaging)	55.9%
Recycling of electronic equipment	47.1%
Procurement of more sustainable paper and office supplies (e.g. recycled paper and stationery, refilled toner cartridges, fairtrade refreshments etc)	47.1%
Routine repair of equipment and musical instruments when found to be faulty	44.1%
Energy usage in the working environment (use energy efficient lighting, heating, air conditioning, switching these off when not in use etc)	41.2%
Arrangements for routine repurposing, donating, recycling or disposing of equipment, musical instruments and accessories (e.g. cases) no longer required or fit for purpose	41.2%
Pro-active inspection and maintenance regimes for musical equipment and instruments (to keep equipment functioning correctly for longer and lessening the likelihood of failure)	32.4%
Evaluating up-front costs for instruments and equipment against resilience/longevity and the potential for repair	32.4%
Improvements to buildings used by the music service/hub (e.g. improved insulation, draught proofing, ventilation, better glazing, water usage, installation of solar panels)	29.4%
Energy usage by IT and specialist equipment (e.g. selecting energy efficient audio/music technology/recording studio equipment, switching off when not in use, recharging less)	26.5%
Collaborating with other local organisations to pool/share resources and avoid purchasing duplicated equipment and instruments	17.6%
Consideration of the environmental sustainability practices of third-party venues hired by the music service/hub (e.g. for teaching, rehearsal and performances)	14.7%
Providing professional development opportunities for those working for or with the service/hub to learn more about environmentally-sustainable working practices	14.7%
Allocating a dedicated budget to support investment in more environmentally-sustainable equipment and working practices.	11.8%

As Table 7 confirms, many of these operational areas were well covered in existing organisational policies, potentially reflecting the content of the template document identified during our initial desk-based research phase (see section 5.1). This was also an area where questionnaire respondents felt there were a number of ‘high priority, low effort’ opportunities’ (figure 4), specifically in relation to routine repair and pro-active inspection/maintenance regimes, the recycling of paper, plastic, metal, cardboard and

electronics, reduced paper waste and more sustainable paper and office supplies. Arrangements for the routine repurposing, donating, recycling or disposing of equipment, musical instruments and accessories was also on the edge of this category.

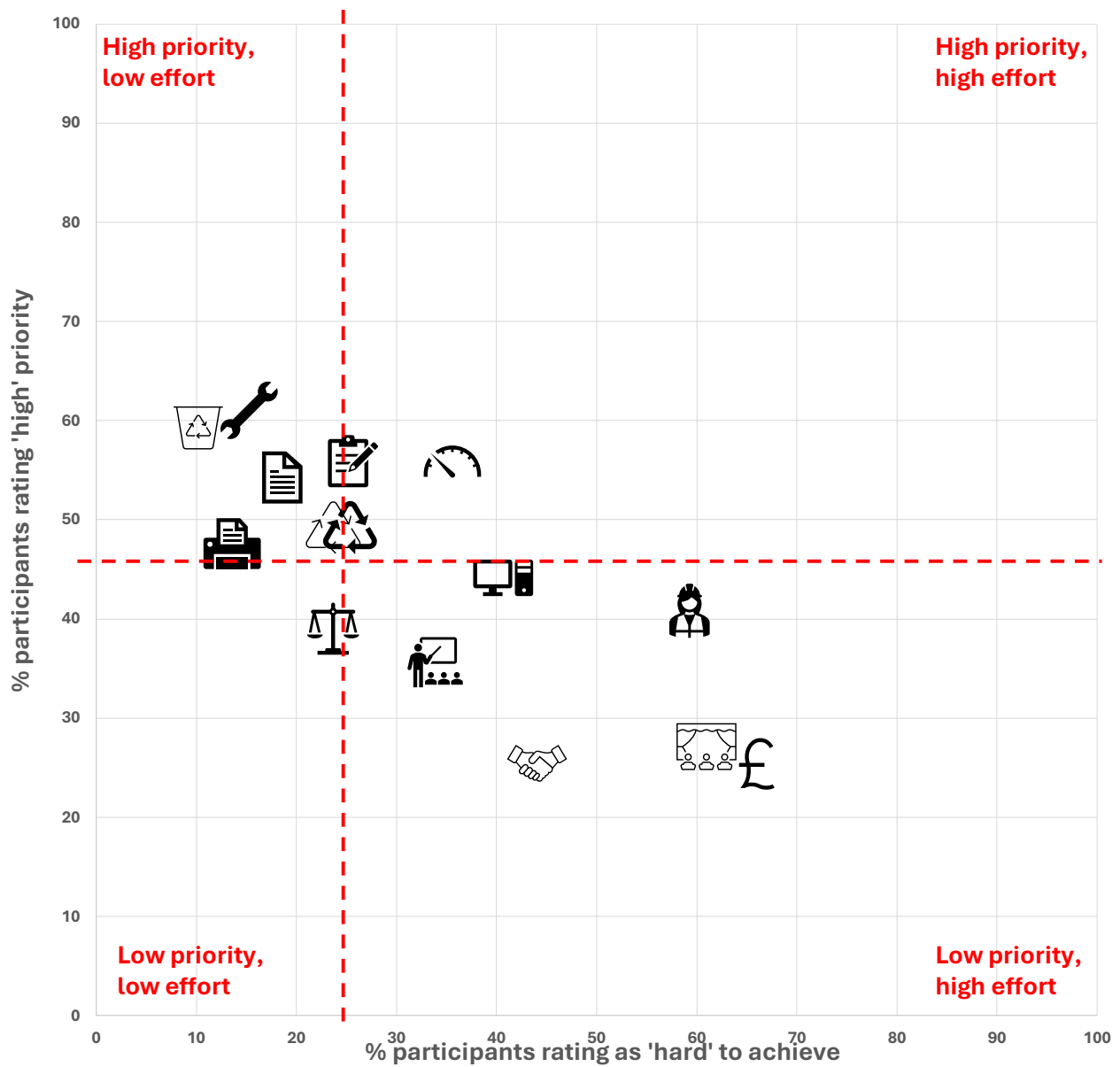
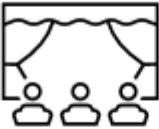


Figure 4: Above: action-priority matrix for other operational areas; below: key to icons (n=59)

Allocating a dedicated budget to support investment in more environmentally-sustainable equipment and working practices.	£	Recycling of electronic equipment	
Consideration of the environmental sustainability practices of third-party venues hired by the music service/hub (e.g. for teaching, rehearsal and performances)		Recycling of paper, plastic, metal and cardboard (e.g. paperwork and packaging)	
Providing professional development opportunities for those working for or with the service/hub to learn more about environmentally-sustainable working practices		Routine repair of equipment and musical instruments when found to be faulty	
Evaluating up-front costs for instruments and equipment against resilience/longevity and the potential for repair		Paper waste reduction (reduced printing/photocopying and using copies for longer, use of email/online resources instead of printing, online publicity information)	
Improvements to buildings used by the music service/hub (e.g. improved insulation, draught proofing, ventilation, better glazing, water usage, installation of solar panels)		Pro-active inspection and maintenance regimes for musical equipment and instruments (to keep equipment functioning correctly for longer and lessening the likelihood of failure)	
Procurement of more sustainable paper and office supplies (e.g. recycled paper and stationery, refilled toner cartridges, fairtrade refreshments etc)		Energy usage in the working environment (use energy efficient lighting, heating, air conditioning, switching these off when not in use etc)	
Arrangements for routine repurposing, donating, recycling or disposing of equipment, musical instruments and accessories (e.g. cases) no longer required or fit for purpose			

8.2 Barriers and challenges to further development

Despite the emerging good practices to maintain, repair and recycle instruments and equipment noted above, it is clear that music services and hubs still require further support in this area. Particular areas identified by managers attending the Spring Summit included guidance on how to balance the economic and sustainability implications of purchasing new versus second hand. Suggestions would also be welcomed for the responsible, sensitive and respectful disposal of instruments when donation, recycling, repurposing or upcycling are definitely not possible. Signposting to repairers, upcyclers, recyclers and groups who might benefit from donated instruments would also be welcomed.

Such issues are no less problematic for school partners, as one interviewee noted:

I've never come across training on the logistics of how to store things. You know. It's kind of left to every teacher to learn how to do that, isn't it? And that's a massive waste of teacher time, because everyone's learning the same thing on their own. If you had some kind of centralized [approach? System?] I think that would be better.

All the [school] equipment had been pushed together and stuck in the attic... There must have been an orchestra there at some stage, so there were... cellos, violins. They were brass instruments, woodwind instruments, but because of the way it's been handled,... because it had literally just been stuffed there. A lot of it was impossible to bring back to life.

This points to the potential for additional training across the sector to ensure that instruments are kept in the best possible condition, thereby avoiding the need for repair in the first place. This said, our findings were very clear that efforts to train an expanded instrumental repair workforce are also required, together with efforts to publicise this as a possible career path.

Managing data gaps and obtaining accurate information from suppliers regarding environmental footprints of products were also regarded as difficult, along with overcoming the perceived high costs of sustainable upgrades and the complexity of some environmental sustainability concepts. As one music industry partner told us:

There's so much information out there, it's trying to work out which is the right information for you and your organization... It took me probably about four or five attempts to find the right platform to start recording [carbon emission] data on... So I think that that's the challenge. It's trying to collect in the data and then knowing what to do.

Efforts to digitise teaching resources and performance repertoire, thereby reducing paper usage, had also hit the occasional snag. In a minority of cases, these efforts had

fallen foul of schools' restrictions on pupils' use of personal digital devices on site. Guides for school colleagues explaining how and when digital devices might be used beneficially in musical activities could be useful. It should also be noted that opinions differ on the relative environmental merits of paper-based musical notation versus digital alternatives (Devine, 2015; Shevock, 2019).

Overall, however, amongst the biggest challenges music services/hubs face when seeking to adopt more sustainable operational practices, lack of funding was the main factor. For instance, one participant noted: 'A general lack of money, especially the lack of a consistent supply of money for repairs/maintenance'. When responding to which areas of operational change should be prioritised, one participant noted the discord between their beliefs and what they are able to accomplish: 'all the answers on this section that I have marked as 'should be a priority' are conflicted by the budget that would be needed to achieve this'.

The challenge of lack of funding is often compounded by limited control and agency regarding buildings and facilities. As managers told us at the Spring Summit, many organisations operate from Victorian or 1960s prefabricated buildings which do not meet modern energy efficiency standards. Many too rent their premises from a local council or other body, and so the ability to improve insulation, retro-fit energy efficient lighting, heating, water and ventilation systems may not be available. In such cases, since many hubs and services are still responsible for utility bills relating to these premises, there are then both economic and environmental motivations to improve the situation. No doubt for reasons such as these, efforts to reduce energy usage are characterised in figure 4 as 'high priority, high effort'.

For many questionnaire participants also, this lack of control over operational matters was a key challenge:

We are part of the local council and therefore improvements to buildings and purchasing of assets have to align to wider pieces of work or policies and can't be undertaken by us directly. We also only have one dedicated space for our service so rely [on this].

Whilst others benefitted from LA initiatives, additional funding challenges remained:

We are lucky as a Local Authority led hub that our building will be retrofitted as part of the overall council Net-Zero plan. I imagine that is unusual. But there is no money for anything else on the [questionnaire] list.

Perceived restrictions within the Arts Council England (ACE) Capital Grant for instruments was a frustration for some in this nation:

The fact that ACE wants a sustainability strategy but gives no support to it - e.g. no part of the capital fund is to be spent on repairs of new or existing instruments. So it negates any 'intentions'.

Similarly, an interviewee noted the challenge of this limitation:

We do have instruments that probably won't get repaired... They were bought historically with the original instrument capital fund and are just no longer of use or too expensive to fix. So we do have a kind of impasse there. We've got this very expensive tuba [and] we haven't got any use for it.

Another questionnaire participant remarked upon the wider impact of the Capital Grant perceived to prioritise the purchase of new instruments: '[The] current Capital Grant coming from ACE will create a negative environment as the demand seen nationally will force global imports of equipment'. In addition, an interviewee highlighted the additional impact of purchasing new instruments: 'I'd say, the biggest shocker there is the packaging for instruments'.

From the perspective of diverse lived experiences, there were concerns that a perceived lack of seniority can limit agency and scope to effect change:

I'm the most junior position in the Hub. I order the stationary, so always choose the most sustainable option available to me. Otherwise, I have so little say over operations - and all of my job is already online so fairly minimal footprint there - I don't know what I can do.

Lack of management capacity and interest - I can raise issues, and suggest ideas, but they don't get taken forward.

Yet, some participants with leadership and management responsibility felt equally constricted:

Financial support for leaders to do the job and be paid as it is difficult to prioritise against on-the ground teaching which is what pays the bills.

Not able to work proactively without authorisation from above and would be seen as not [a] priority.

Capacity to lead and coordinate initiative alongside just day to day delivery. Working in a large hub area does make development of these areas challenging. We also have to balance the local authority priorities for this and so tend to focus more on their priorities.

Our offices are in [in a small building on a school site], kind of quirky....it's all single glazed windows. Well, obviously, that's not good, but it's not my building... although I said to the school, it would be great if they could [put] stuff around, you

know, making the building more energy efficient. I don't actually have the authority or power to do that.

These comments offer an important reminder that there are often multiple hierarchies which must be tackled to bring about change. There is resonance here with aspects of the relevant action-priority matrix (figure 4), which suggests that some activities which involve leveraging support from third parties (e.g. on building improvements/maintenance, IT systems, third party venues and shared resource/instrument pools) are characterised as 'low priority, high effort'. Much has been said throughout this report on the issue of funding and it is thus not particularly surprising that this seeking to dedicate a budget to support sustainability related activities came out as the *lowest* priority with the *highest* effort.

8.3 Examples of good practices and effective collaborations

Suggested solutions to the issue of instrument maintenance provided by questionnaire participants included an 'instrument amnesty in which partners collect instruments, we repair them and redistribute to those in greatest need'. Another participant shared their approach:

I am involved in helping a training organisation that trains repairers [to] become more sustainable and we are working with [a] local charity to recycle instruments in creative ways.

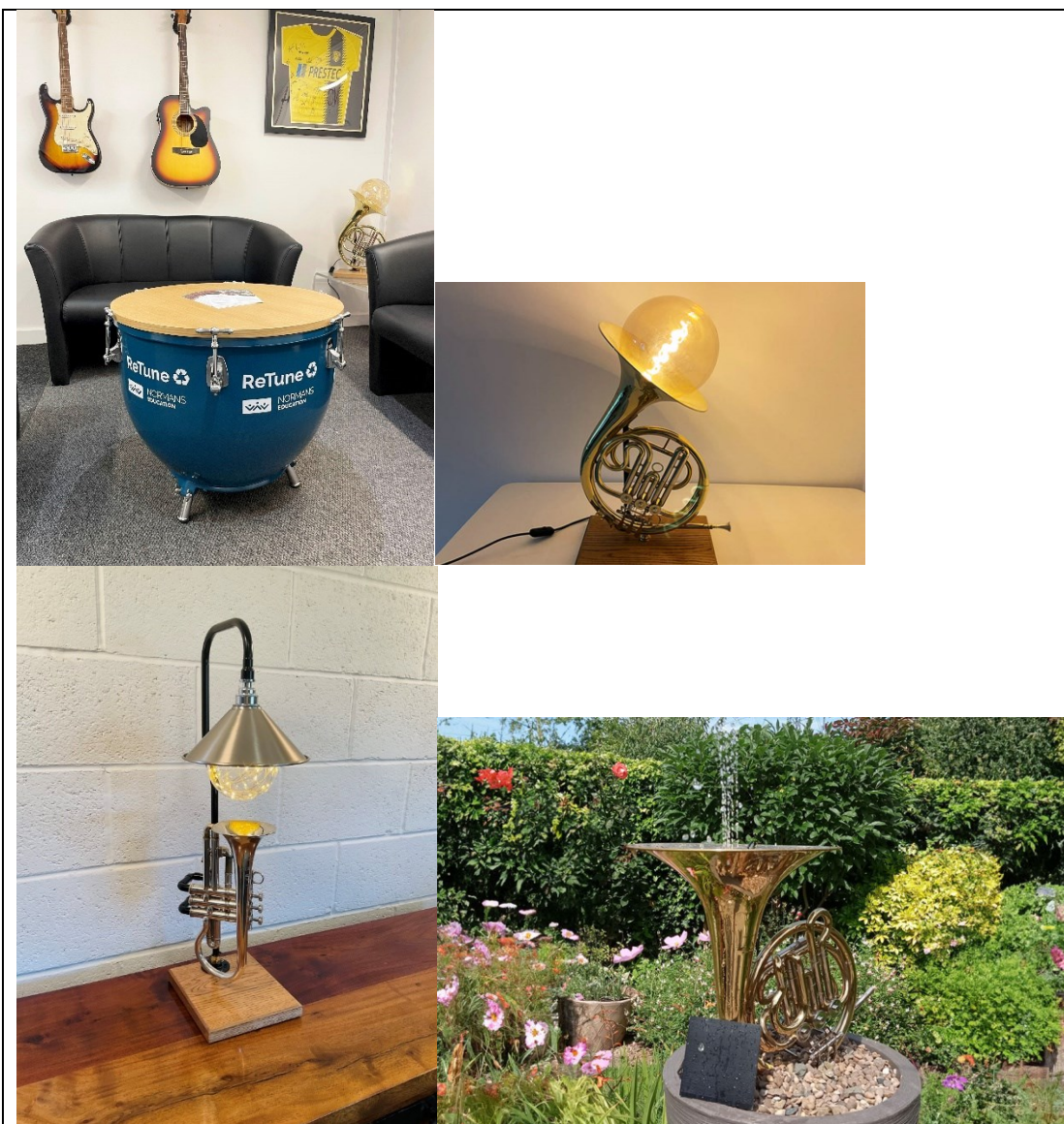
Several interviewees also shared creative ways to recycle or repurpose instruments that are beyond repair:

I put them into the auction house - they got bought so by like restaurants, you wanted to stick them all up in the corner or use them as decorative items you know, and we made a bit of money back, and they're still in use.

Another interviewee explained that irreparable instruments were collected by a local upcycler to be repurposed as decorations and sold in local shops. A further interviewee recycled metallic instruments and components:

We have a scrap metal man who comes around. So they're then recycled by that. So it's kind of little things. But I mean, I think one of our principles is little things make a difference, no matter what it is. And actually when you do loads of little things, all of a sudden it becomes quite a big, big effort and a big campaign.

An existing initiative by Music Mark, whereby hubs/services are able to post details of surplus instruments to an online forum, with other hubs/services then able to request these, was also highlighted as a helpful way of redistributing resources.



Instruments receive a new life as part of the ReTune scheme

ReTune: A Sustainable Model for Instrument Recycling in Music Education

ReTune is a not-for-profit recycling initiative from Normans Musical Instruments, designed to support Music Hubs across the UK. The programme offers free collection and assessment of unwanted instruments, aiming to repair, donate, repurpose, or recycle them responsibly. Instruments suitable for reuse are restored and donated to schools or community groups, while others are sold to raise funds for sustainability projects, including carbon literacy training and nature-based initiatives via Earthly.org. A key feature of ReTune is its commitment to environmental responsibility. In partnership with Willshee's Waste & Recycling, every item that cannot be reused is processed through a cutting-edge facility with a Zero Landfill Guarantee. Materials such as wood, metals, plastics, and case components are meticulously separated and either recycled or converted into energy via SRF/RDF fuels - eliminating waste and reducing reliance on fossil fuels.

ReTune has already diverted thousands of instruments from landfill, making it a UK-first for sustainable instrument disposal within music education, while giving old instruments new purpose in classrooms, communities and even as creative décor.

<https://www.normans.co.uk/retune>

<https://www.willshees.co.uk/waste-management/zero-landfill-energy-recovery/>

With thanks to Normans Musical Instruments

Hounslow Music Service – Sustainable Instrument Management

Hounslow Music Service (HMS) has developed a comprehensive, environmentally responsible approach to managing its extensive stock of musical instruments. With thousands of instruments in circulation across schools, HMS prioritises repair, reuse, and responsible disposal to reduce waste and extend the life of its resources.

Each year, whole-class brass instruments such as trombones are collected, cleaned, and serviced in-house. Many of these instruments, despite being low-cost models, have remained in use for over 15 years thanks to regular maintenance. Parts and cases are salvaged from irreparable instruments to create hybrids and reserve stocks, reducing the need for new purchases. Staff are equipped with maintenance kits and have had training to carry out minor repairs in schools. More complex repairs are completed centrally by the Deputy Head of Service, who has developed the necessary skills ‘on the job’ to meet all but the most complex challenges. Instruments beyond repair are recycled through a local authority partnership, ensuring ethical disposal.

Mobile servicing is a further key part of HMS’s approach. Each year, staff also visit schools, ensuring instruments remain in working order for pupils. During the COVID-19 pandemic, this commitment went even further, with HMS providing a mobile repair service to offer roadside repairs outside pupils’ homes.

A barcode tracking system has been gradually rolled out, with instruments and cases scanned and logged as they return to the central store. This phased approach has allowed for an efficient yet manageable implementation. Barcoding not only enables accurate audits, depreciation tracking, and better resource allocation, but has also reduced losses and thus the need to purchase replacements.

HMS also supports pupils in caring for instruments through a series of YouTube tutorials on cleaning, maintenance, and handling. This holistic system ensures instruments are preserved, reused and respected, supporting both environmental goals and equitable access to music education.

With thanks to Hounslow Music Service

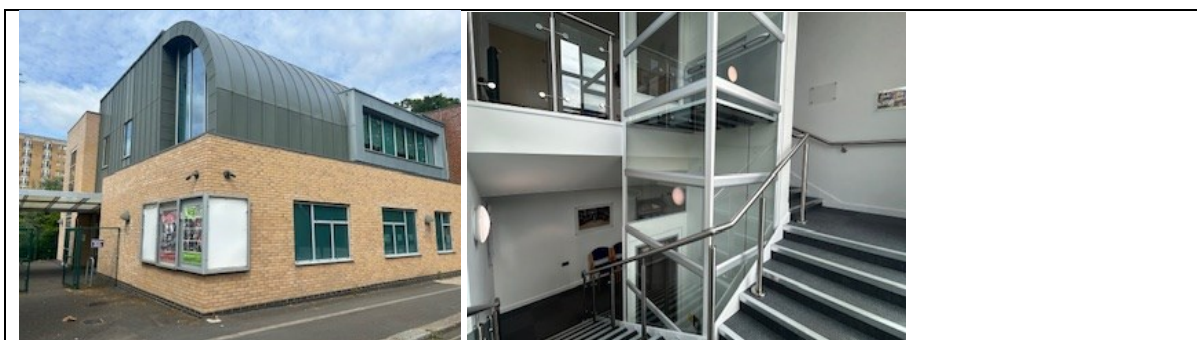
The We Make Music Instrument Libraries Initiative

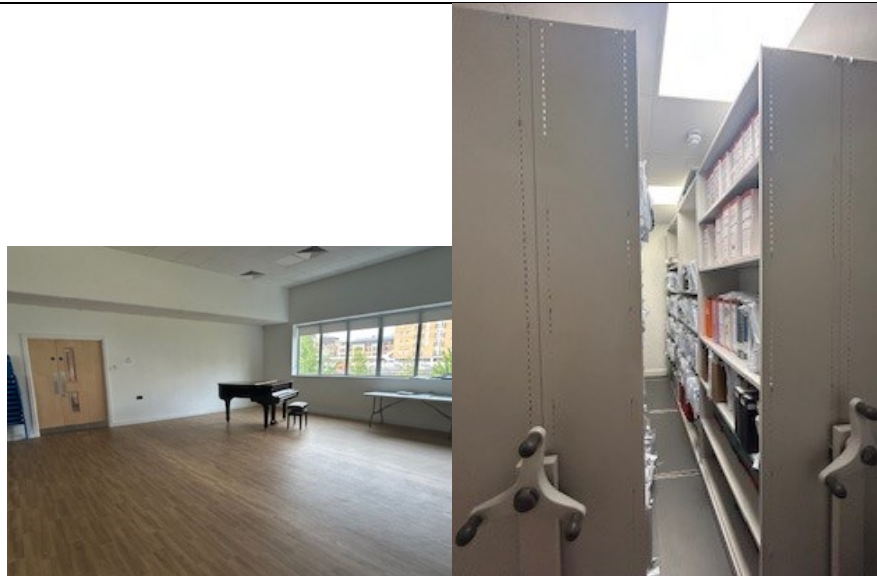
The We Make Music Instrument Libraries initiative aims to provide free access to musical instruments through public libraries, allowing people to borrow instruments just like they would borrow books. Launched in Scotland in 2022, the project has rapidly expanded to over 13 local authorities and 35 community libraries, with more joining regularly. A key focus of the initiative is sustainability, achieved by upcycling existing instruments to minimize environmental impact and reduce waste.

In addition to loaning instruments, the libraries host music workshops and live performances, equip themselves with music production software and equipment, and develop online resources to facilitate remote learning. The project is led by a collaboration between Tinderbox Collective and the Music Education Partnership Group, with each local authority area pairing libraries with third-sector music organizations, local musicians, or local authority music services to help with the upkeep of instruments and the development of musical opportunities.

Bi-monthly meetings are held with library service managers and collaborating music groups to share practices and expand the programme across the country. The initiative aims to grow beyond Scotland, requiring similar networks of libraries and music groups in other areas of the UK, as well as core infrastructure to manage the libraries' growth effectively. This scheme not only promotes environmental sustainability but also fosters community engagement and accessibility to music education.

With thanks to Music Education Partnership Group and Tinderbox Collective





Hounslow Music Centre

In 2016, Hounslow Music Service, which had been part of the London Borough of Hounslow since 1980, became a charity. Part of the agreement was that the Council would build a state-of-the-art music centre for the service to help secure its future. The Music Service management team was heavily involved in the planning and design process, working closely with architects and planners to ensure the new building met their specific needs. This involvement not only included decisions about the Centre's layout, design and sound insulation, but also its energy efficiency and sustainability features. The construction process itself also focused on environmental sustainability. Local suppliers were prioritised to reduce transportation emissions and support the local economy.

The building was constructed to high BREEAM standards (The BREEAM (Building Research Establishment Environmental Assessment Method) standards are recognized globally for setting benchmarks for the environmental performance of buildings.). Design features include provisions for natural light, with polycarbonate canopies allowing daylight into the entrance area, reducing the need for artificial lighting. The flat roof's single ply membrane system provides excellent insulation, helping to reduce energy consumption. The Centre also has excellent air exchange credentials, which contribute to a healthy indoor environment and energy efficiency. The use of recycled materials is another key sustainability feature, and the Centre utilises repurposed archive storage systems from Hounslow Council for its library and instrument storage room.

The building achieved a 'B' grade in its 2023 Energy Performance Certification process, putting it within the top 9% of public building efficiency ratings within England and Wales¹.

¹ <https://neosnetworks.com/resources/blog/the-public-building-energy-efficiency-report-where-can-improvements-be-made-to-meet-net-zero-decarbonisation-targets/>

With thanks to Hounslow Music Service

9 Emerging good practices for collaboration and the involvement of children and young people

It will be noted that throughout all previous sections of this report, and within the good practice vignettes included, there is a strong emphasis both on (1) collaboration between music services/hubs and third parties, and (2) the meaningful involvement of children and young people in decision-making regarding environmental sustainability practices. Much can be gleaned from the examples already provided, but our various rounds of fieldwork have also highlighted further, summative points in these areas which will be useful to the sector.

9.1 Emerging challenges and good practices for organisational collaboration

Throughout the entire research process, it has been notable that very few initiatives relating to environmental sustainability have been undertaken by a single music service or hub. Rather, they have been characterised by significant partnership or co-funded work. We have identified a wide range of examples of such collaboration, including with local authorities, environmental charities and campaign groups, environmental scientists, and composers.

It has been important to understand more about these partnerships, how they have come about, who instigates them, and how funding is distributed. Given this emerging emphasis on collaboration, we have also sought to identify barriers to doing more such work with both organisations and passionate, knowledgeable individuals.

Table 8: The nature of music service/hub collaborations with other organisations, as reported by questionnaire participants (n=43)

Collaboration Partner	Collaborated previously or ongoing collaboration	Planning a collaboration in next year
Primary School	26%	7%
Other area of local government	19%	9%
Secondary School	19%	7%
Other business/commercial org	16%	2%
Other music service/hub	14%	14%
Voluntary/community org	14%	2%
Theatre/performance venue/festival	12%	5%
Early Years Provider	9%	2%
National Portfolio Organisation	7%	5%
Other music-related org	7%	5%
Post Compulsory College	7%	2%
Environmental organisation	7%	0%
Other education-related organisation (non musical)	5%	5%
Other kind of organisation	5%	0%
English National Youth Music Organisation	2%	7%
English Investment Principles Support Organisation	2%	5%
University	2%	2%
Conservatoire/Music College	0%	2%

14% of questionnaire respondents reported that their organisations were already collaborating with other hubs/services in this area (Table 8). Perhaps reflecting the imminent geographical reorganisation of the sector in England, a further 14% noted that such collaboration was planned in the next year. In terms of work with schools, a third of respondents reported that their hubs/services either had an active sustainability-/environmentally-themed collaboration with a primary school, or were planning one

within the next year. The equivalent figure for secondary school partnerships was 26%, whilst 12% of respondents knew of similar collaborations with early years providers and 9% with post-compulsory settings. Further significant collaborators noted by respondents included local government (28%), business or commercial bodies (19%), voluntary or community organisations (16%), theatre, festival or performance venues (16%), Arts Council England National Portfolio Organisations (12%), and other music-related organisations (12%).

A variety of factors were offered by participants regarding effective partnerships, including effective communication, a shared vision, a focus on costs, support from senior leadership teams, and a willingness from staff. Several interviewees explained how partnerships with local educational and environmental organisations have enriched projects and expanded reach. One example focused on linking music service repertoire with the curriculum employed by local forest schools. A further participant noted importance of ‘creating a feeling of wellbeing in the staff as a whole so that they feel able to consider matters outside the daily rush of teaching’.

When asked how environmental sustainability collaborations involving music services/hubs had been instigated and led, a range of responses were received. These included via a designated sustainability lead, existing contacts, private practitioners or other external organisations, and committed individuals. The pivotal role of passionate individuals was echoed by several interviewees but this could also lead to problems:

Quite often these things are just left to one passionate teacher to bring in more sustainability stuff. And sometimes that can work, and sometimes it can't, or they burn out. Or then they leave [and] there's no one that takes [over].

This highlights the importance of resilience, possibly achieved through up-skilling groups of staff and encouraging wider organisational change. Another interviewee commented:

[There will be a] minority of people who are very passionate about the topic and are probably beavering away, doing amazing things in their own little areas but it hasn't translated into a way for us as an organisation or as a sector to get our heads around why doing this is really important. So I feel like it's a bit of a riddle for all of us to think to come up with reasons for why we've all got to do it, and why our organisation should go first.

Collaborations were funded in various ways. These included applying for National Lottery funding, environmental agencies funded by government, joint funding between organisations, and existing service budgets. One English participant noted challenges faced despite setting aside funding:

We set a line in the budget but this is being squeezed by external pressures outside of our control - local council budget pressures and scrutiny, pension and pay rise, contribution to new [Hub Lead Organisation] to lead on the new [Music Education Hub].

The strain on funding was echoed by another respondent who noted collaborations were funded 'on a shoestring'.

9.2 Emerging challenges and good practices for involving children and young people

Perhaps because the questions came towards the end of the questionnaire, only a relatively small number of respondents gave their view on which areas should be a priority for the involvement of children and young people in decision-making. However, further comments made during the various stages of fieldwork illustrated important considerations regarding the effective involvement of children and young people. These should be considered alongside the various good practice vignettes presented throughout the report.

Some questionnaire respondents suggested creating youth teams or councils. There was an emphasis on strong partnerships between pupils and staff, who needed to be 'be approachable and willing to listen' and to make issues 'relevant to them'. Similarly, several interviewees noted the importance of actively involving children and young people in projects to ensure the content is relevant and engaging. One participant in England cautioned:

Hubs need to be fully trained themselves to know what they are asking young people. If we do not yet know ourselves we will struggle to get the most out of youth voice and runs the risk of becoming a tick box exercise.

Moreover, an interviewee noted the potential risk of over-saturation when embedding environmental issues into musical work:

There is this term, which is 'climate anxiety', isn't there? But it's true. May be not as strong as anxiety, but a lot of young people have just had enough of listening to this all the time, And they think, like, 'we're here, we are forming a rock band'. Mostly they want to express about their personal life, what they're going through on friendships, love, frustrations at school, in the family. And they know—I mean, young people are really clever, obviously—and they know what's going on. Most of them know what's going on, but they just don't want to go into it, a lot of it.

A small number of questionnaire participants did indicate their priorities in this area. Amongst these, involving CYP in decisions about teaching, learning and creative work

was particularly highlighted. Much has already been said on this topic in Section 6. However, an additional cautionary point was raised by one of the managers at the Spring Summit, who noted possible tensions between meeting young people's aspirations for such work and achieving everyday operational requirements: 'balancing the need of CYP, working in local communities vs centralised delivery', as they put it.

9.3 Further good practice case studies for collaborating with third party organisations, children and young people



Oxfordshire County Music Service: Young Singers Concert at Oxford University Museum of Natural History

This one-term project involved all three Oxfordshire County Music Service (OCMS) Young Singers choirs (around 80 KS2 children in total) and culminated in a concert for parents at the museum. The theme was biodiversity and extinction, and most of the songs we chose related directly to exhibits in the museum, including the famous dodo, an extinct dinosaur and a selection of beautiful British butterflies. The final song, about the museum building itself, and the colony of swifts which nest under the eaves, was written specially a member of OCMS staff. Each choir visited the museum early in the term for a handling session and introduction to the displays with the museum's Education Officer. We then came back at the end of the term for the

concert. The museum, which was envisaged by its Victorian architect as a ‘temple of science’, has a wonderful cathedral-like acoustic, and it was incredible to perform our songs in the presence of the very things we were singing about. The aim of the project was for the visit to deepen the children’s understanding of the songs, and for the songs to deepen their engagement with the museum exhibits and the natural world, and we felt it did this really successfully. It was particularly special for our Banbury Young Singers group, most of whom had never visited the museum before. We were really grateful for the Museum’s generous support in the form of staff time to show us around and use of the space for our concert.

With thanks to Oxfordshire County Music Service and the Oxford University Museum of Natural History



Normans’ efforts have been recognised with a Highly Commended Award from SBEN

Normans Musical Instruments – Advancing Sustainability Through Partnership with SBEN

Normans Musical Instruments has made significant progress on its sustainability journey through partnership with the Staffordshire Business and Environment Network (SBEN). Initial funding from SBEN enabled two team members to complete Carbon Literacy training, which served as a catalyst for embedding environmental awareness across the organisation. This training has since expanded internally, with over half the team now certified, and Normans recently achieving Bronze Carbon Literate Organisation status.

SBEN also funded a comprehensive green energy assessment of Normans' premises and supported the transition to energy-efficient LED lighting and infrared heating with motion sensors. These improvements have contributed to a measurable reduction in the company's energy consumption and carbon footprint.

Operational changes include a shift to recyclable and plastic-free packaging, 100% renewable energy supply, greener banking and partnering with climate conscious logistics partners. They are also working with Positive Planet to measure the environmental impact of their business and develop a carbon reduction plan. Normans' efforts have been recognised with a Highly Commended Award from SBEN and shared at key industry events such as the Music Mark conference. This case highlights the role that local partnerships and practical training can play in supporting sustainability within the music education sector.

<https://www.normans.co.uk/sustainability>

<https://sben.co.uk/funded-support/>

With thanks to Normans Musical Instruments



Biosphere Big Sing

The Biosphere Big Sing event celebrated the Isle of Wight's achievement in obtaining UNESCO Biosphere Reserve status. This status underscored the island's unique biodiversity and heritage, emphasising the importance of environmental conservation

and sustainability. The project incorporated the 17 UN Sustainability Development Goals, focusing on actions to protect the biosphere, such as reducing single-use plastics, recycling, and using sustainable transport. Over 900 pupils from nine schools participated, performing songs written by Hub composer Jo Downs. The songs, including 'Cheer For The Biosphere' and 'Protect Our Island', were designed to be catchy and engaging, with lyrics that celebrated the island's biodiversity and promoted sustainability. The song 'Protect Our Island' specifically listed ten actions derived from these goals, encouraging behaviours like planting trees, conserving water, and exploring local nature. The lyrics of 'Cheer For The Biosphere' also highlighted the island's diverse wildlife and natural beauty, promoting awareness and appreciation of the environment. The event featured weeks of workshops and rehearsals, culminating in a large performance at Brown's Golf Course in Sandown. The musical performances were complemented by beautiful flags and set dressing provided by Shademakers, an international carnival company.

The Biosphere Big Sing was a collaborative effort involving several organisations: Isle of Wight Music Hub, Isle of Wight Area of Outstanding Natural Beauty (AONB), now known as IW National Landscapes, Shademakers, English Heritage, and Brown's Golf Course. The event showcased the power of collaboration and community involvement in promoting environmental awareness and sustainability through music and education. It was a testament to the collective effort of various organisations and individuals working together to celebrate and protect the Isle of Wight's unique biosphere and to raise awareness with young people to safeguard this for the future.

With thanks to Southampton and Isle of Wight Music Hub



Koes Symfoni

The Koes Symfoni (Symphony Woods) Project in Cornwall is a creative initiative that combines music and environmental conservation. Located on the edge of Bodmin Moor, the project invites young people from North Cornwall to create a symphony inspired by nature while participating in tree planting activities. A close partnership between Cornwall Music Service Trust (CMST) and Global Jamming ensures support and resources for both the music and tree planting activities. Other groups involved include CMST's Youth Council, a local primary school, a home education group and Launceston Town Youth Band.

Young participants are involved in composing movements of the symphony, drawing inspiration from the sights and sounds of the woodland. They engage in creative sessions where they develop musical phrases, and explore Cornish chants and ambient sounds. These elements are then arranged into a symphonic form, with the help of their strings teacher who records the musical phrases composed by the children. Sampled sounds are made accessible via MIDI keyboards for the children to trigger as part of the arrangement. Follow-up sessions further harness the children's creative ideas to produce the symphony and an accompanying film. One of these films will be shown as part of CMST's tenth anniversary concert in Hall for Cornwall. Additionally, local home-schooled children have recently begun work on the third movement of the Symphony.



The Woods also inspire young people's art, such as this image by one of CMST's young instrumentalists. This will form the initiative's new logo.

The environmental aspect of the project focuses on establishing a new temperate rainforest using seeds collected from semi-natural woodlands across the South West. These seeds were germinated by children throughout the county, highlighting the project's educational and ecological impact. CMST staff have also been directly involved in tree planting at the site, marking specific occasions such as Mother's Day and acts of commemoration. CMST regards such activities as an important means of mitigating its collective carbon footprint.

Overall, the Symphony Woods project celebrates the creation of music and new woodland by young people, fostering a connection with nature and contributing to environmental sustainability.

A short film on aspects of the project is available at:
<https://www.youtube.com/watch?v=55bMDez9UKY>

With thanks to Cornwall Music Service Trust



Youth Voice

Portsmouth Music Service actively involves children and young people in the inspiration and creation of environmentally themed-songs by incorporating youth perspectives and ideas into the songwriting process.

Through initiatives like the *One World* campaign, which focusses on environmental awareness, the Hub's team of award-winning composers have developed a collection of songs addressing a range of environmental topics. The themes were requested by children, young people and their schools in response to key contemporary environmental issues and concerns. The aim has been the composition of songs that resonate with young audiences, encouraging them to reflect on, engage with and take action on environmental issues. This campaign, which has won national and international awards, integrates the voices and insights of children and young people into the music with the aim of creating and using songs are both educational and relatable, fostering a deeper connection between children and young people and the pressing environmental challenges of their time.

For more information see: <https://www.portsmouthmusichub.org/985463>

With thanks to Portsmouth Music Service

10 Conclusions, implications and recommendations

10.1 Summary of findings

Environmental sustainability activity across UK music services, hubs and partner organisations is already diverse and evolving. Some organisations are engaged in practical initiatives such as repairing, recycling, and repurposing instruments, reducing paper usage, and shifting to online activities where these are administratively, pedagogically and musically appropriate.

Operational changes are often accompanied by creative teaching and learning projects that explore environmental themes through music-making, including songwriting, sound sampling, and themed performances. Some organisations have introduced travel planning strategies to reduce emissions, while others have embedded sustainability into broader organisational practices. Despite some participants perceiving that their organisations did not yet have strengths in this area, others highlighted meaningful—and in some cases—really extensive efforts. One participant spoke for many when they described music as:

a tool for communication and expression of people's feelings about climate and nature – and the impact this can have in terms of motivating people to take action.

Activities identified and highlighted within our findings reflect a wide range of lived experiences, from urban to rural settings, and include services/hubs operating under significant constraints. Our report confirms that while activity is uneven, there is a strong appetite for further development and innovation in this area.

Policy influence on environmental sustainability in music education is present but often indirect and inconsistently applied. In England, the *National Plan for Music Education* and the Department for Education's climate strategy have begun to influence policy and practice to an extent.

Local authority policies also shape practice, particularly where services are council-run. However, the impact of these policies depends heavily on local interpretation and leadership. Some participants expressed scepticism about the effectiveness of policy without structural support, with one articulating a common view: 'It won't make a difference if governance structures cannot support change'.

While policy is developing in this area, service and hub managers report that clearer expectations, better alignment with operational realities, and consistent support from all levels of the education ecosystem are all much needed. Our findings suggest that policy frameworks must be matched by practical tools, funding, and accountability mechanisms to drive real change.

Collaboration is a central feature of much existing sustainability work in music education. Sizeable numbers of music services and hubs have partnered with schools, local authorities, environmental groups, cultural institutions, and commercial organisations to deliver a wide range of initiatives. These include instrument recycling schemes, co-designed creative projects, and shared delivery models that promote environmental awareness. Such partnerships are often driven by passionate individuals and rely on shared values, mutual benefit, and practical support. While some collaborations are strategic and relatively well-resourced, others are more informal or reliant on short-term funding. The importance of coordination was highlighted by one respondent who noted, ‘there isn’t one person responsible for overseeing / initiating sustainable practices, which could help’.

The extent and success of collaboration varies across the sector, but it is widely recognised as essential for scaling impact, sharing resources, and embedding sustainability more deeply. These partnerships reflect a broad range of organisational contexts and geographical settings, from densely populated cities to remote rural areas. Our findings encourage further cross-sector collaboration to pool expertise, amplify impact, and build resilience across the music education ecosystem.

Nonetheless, A range of interconnected barriers continue to limit the development of environmental sustainability practices in music education. Funding is the most frequently cited challenge, affecting everything from instrument maintenance to sustainable travel and staff time. Secure and predictable funding will help reduce some of the tensions experienced by some, such as the questionnaire respondent who noted:

we need funding to support us to continue to repair instruments so we're not discarding instruments that need some repair in favour of shiny new instruments with a much higher carbon footprint!

Rurality, poor transport links, and large geographical areas exacerbate logistical difficulties, particularly for peripatetic staff. Time and capacity are also major concerns. Some in England felt that sustainability was not yet a priority within new hub structures, while others pointed to a lack of leadership more generally to support or meaningful action.

Good practices in environmental sustainability are characterised by authenticity, creativity, and practicality. They often involve young people in meaningful ways, integrate environmental themes into music-making, and reflect local contexts. Operationally, effective practices include proactive maintenance and reuse of instruments, well-considered digital transformation, and sustainable procurement. Strong partnerships with external organisations enhance impact, while reflective leadership and clear policy frameworks support long-term change. Participants emphasised the need for practical tools and training, for instance relating to carbon

literacy, CPD from environmental partners, and toolkits for policy development. One interviewee reflected on the sector's trajectory in this regard, comparing it to earlier efforts to meaningfully embed equality, diversity and inclusion considerations into practice.

Overall, our findings confirm a desire to act within our sector, but they also acknowledge that embedding sustainability meaningfully requires both top-down support and grassroots innovation.

10.2 Recommendations for sector organisations

The following is a synthesis of recommendations for sector organisations, including Music Mark, drawn from across our findings.

- **Champion environmental sustainability as a core sector priority**
Position environmental sustainability alongside inclusion, diversity, and access as a central pillar of sector development. This includes embedding it within advocacy, funding guidance, and professional development frameworks.
- **Develop and disseminate practical toolkits**
Create accessible, user-friendly toolkits to support music services and hubs in developing sustainability policies, measuring impact, and implementing operational changes. These should include templates, checklists, and case studies.
- **Coordinate a national calendar of environmental engagement**
Publish and promote an annual calendar of environmental awareness days with suggested musical activities and resources, enabling services to align their programming with wider sustainability campaigns.
- **Facilitate peer learning and knowledge exchange**
Establish online forums, regional networks, and regular events where practitioners can share experiences, challenges, and solutions related to sustainability in music education.
- **Provide sector-specific policy interpretation**
Offer clear, contextualised summaries of relevant environmental legislation and policy developments, highlighting implications for music education providers across the UK.
- **Support data collection and impact measurement**
Develop or endorse tools that help organisations track their environmental footprint and evaluate the effectiveness of sustainability initiatives, including carbon literacy metrics.

- **Advocate for targeted funding and investment**
Lobby for ringfenced funding to support sustainability initiatives, particularly in areas such as instrument repair, sustainable travel, and building improvements—especially for rural and under-resourced services.
- **Promote inclusive and youth-led sustainability initiatives**
Encourage and support the involvement of children and young people in shaping sustainability strategies, ensuring their voices are central to decision-making and creative outputs.
- **Highlight and amplify good practice**
Curate and share examples of effective sustainability practices from across the UK, showcasing diverse geographical, organisational, and pedagogical contexts.
- **Offer entry points for all levels of readiness**
Provide a ‘menu’ of actions ranging from quick wins to long-term strategic shifts, enabling services at different stages of their sustainability journey to engage meaningfully.

10.2.1 Particular opportunities for Music Mark in Promoting Environmental Sustainability

Participants in the research consistently recognised Music Mark as a trusted and influential organisation with a strong track record of sector support, particularly during times of uncertainty. One music service manager described the organisation as ‘a complete lifeline during that whole time’ (referring to the pandemic), and expressed confidence in its ability to play a similar role in guiding the sector on environmental sustainability: ‘they can do the same again. That’s what they do. That’s what I trust them to do now’. Music Mark’s convening power was seen as a particular strength. Several participants highlighted its ability to bring people together, share ideas, and foster collaboration across the sector. One interviewee noted:

Allowing us to collaborate and pool our resources... Who’s got an idea for what we’re doing with these broken instruments that we can’t ever fix? Who’s got an idea for how we run our ensembles in a way that doesn’t use up a forest of paper?

This aligns closely with Music Mark’s strategic role in connecting the sector and facilitating peer learning. There is a clear opportunity for the organisation to continue building platforms for sharing practical solutions, particularly around common challenges such as sustainable travel, digital delivery, and resource use.

At the same time, participants acknowledged the diversity of priorities and capacities across the sector. While some called for Music Mark to take a more active influencing role—particularly in lobbying for funding to support sustainable change—others cautioned against duplicating efforts already underway at local level. One participant reflected:

By the time that the national bodies get around to... coordinated action, the most active services and hubs have been thinking about this for years... telling us what we ought to be doing when we already know that is pointless.

This highlights the importance of Music Mark's role as a supportive and enabling body, rather than a directive one. There is a clear appetite for practical, accessible resources—such as 'top tip sheets' on energy saving or transport efficiency—that services can choose to use as appropriate to their context:

People have different priorities, don't they? And we've made this one of ours. I suppose if it's there, they can choose to use it or not, but it's there.

In summary, Music Mark is well-positioned to: support the sector with practical tools, training and signposting; connect services and individuals to share ideas and good practice; influence policy and funding conversations to ensure sustainability is resourced; and champion inclusive, context-sensitive approaches to environmental responsibility.

10.3 Recommendations for music services, hubs and their partner organisations

The following are some suggestions for how individual music services, hubs and partner organisations might enhance the environmental sustainability of their work. We offer these with full acknowledgement of considerable wider challenges and responsibilities experienced by these organisations, as considered throughout this report. Readers may find the further guidance and literature in appendices 1 and 2 helpful.

- **Instrumental and vocal tuition**

Where possible, prioritise repair and reuse of instruments to reduce waste, acknowledging that this may require investment in training, partnerships, or logistics.

Offer instrument care workshops for staff and learners, where capacity allows, to extend the life of resources and reduce reliance on new purchases.

Encourage creative use of recycled materials in music-making (e.g. junk percussion), while ensuring this complements curriculum and learner needs.

- **Curriculum music support**

Integrate environmental themes into music education through repertoire, composition and cross-curricular projects. These could usefully be tailored to local contexts and national curricula (e.g. Curriculum for Wales, Curriculum for Excellence in Scotland).

Support teachers with ready-to-use resources that align with sustainability goals but remain adaptable to different educational settings and experience levels.

- **Ensembles and performance opportunities**

Consider low-carbon approaches to events, such as local venues, shared transport or digital showcases, while balancing this with the value of live performance.

Where appropriate, commission or programme works that explore environmental themes, especially those co-created with young people.

- **Access and inclusion**

Ensure sustainability initiatives are inclusive and equitable, particularly for rural communities and those facing financial barriers.

Involve children and young people in shaping sustainability efforts, recognising their lived experiences and priorities across different geographies, regions and nations.

- **Instrument hire and maintenance**

Participate in or develop instrument sharing, recycling and redistribution schemes, where feasible.

Implement tracking and maintenance systems to reduce loss and improve efficiency, while reflecting the realities of administrative capacity.

- **Progression pathways**

Highlight green careers in music and the creative industries, including sustainable event production, instrument making and repair.

Develop digital and music technology pathways that reduce travel and material use, while maintaining high-quality learning experiences.

- **Community and cross-sector partnerships**

Build partnerships with local environmental organisations, repairers and recyclers, recognising that opportunities and networks vary across the UK.

Encourage collaborative projects that reflect local environmental priorities and cultural identities.

- **Professional development**

Investigate offering or facilitating carbon literacy training and CPD on sustainability, where time and funding allow.

Facilitate peer learning and resource sharing between organisations to reduce duplication and support collective progress.

Guard against situations where environmental sustainability is the responsibility of, or is driven by the efforts of, one individual. Though individual passion and commitment are vital qualities in this area, it is much better to equip a team, or better still an entire organisation, to address these challenges. Broader based CPD, skill and knowledge exchange will enhance organisational consistency and resilience in the face of staffing changes. There is also a risk of overburdening individuals, both organisationally and emotionally, in this area.

- **Cultural and creative development**

Consider the potential of music as a platform for environmental storytelling and advocacy, empowering young people to express their concerns and hopes.

Celebrate local cultural and ecological heritage through music, supporting a sense of place and environmental stewardship.

- **Hub and service leadership**

Embed sustainability into strategic planning and reporting, where this aligns with national frameworks.

Share policy templates, action plans, and case studies between organisations and across UK to support consistency and innovation.

- **Digital and blended learning**

Continue to critically explore the practical potential of online tuition, meetings, and administration to reduce travel, while ensuring accessibility, musical quality and safeguarding.

Invest in energy-efficient digital tools and practices, where educationally and musically appropriate, and where infrastructure and funding permit.

- **Wellbeing and social impact**

Consider the potential of music to support eco-anxiety and wellbeing, particularly through nature-connected creative experiences.

Where possible, consider supporting youth-led environmental projects, recognising the importance of agency and voice in shaping a sustainable future.

10.4 Suggestions for the consideration of individual practitioners

The following are some suggestions for how individual members of staff working for and with music services, hubs and partner organisations might enhance the environmental sustainability of their work. We offer these with full acknowledgement of the varying levels of agency, seniority, and capacity that individuals may have within their organisations. Readers may find the further guidance and literature in appendices 1 and 2 helpful.

- **Start with small, manageable changes**
Consider simple actions such as reducing paper use, switching off equipment when not in use, or reusing teaching materials. Small steps can build momentum and confidence.
- **Encourage the care for and maintenance of instruments**
Continue to encourage learners to adopt regularly check on their instruments to extend their lifespan and reduce the need for replacements.
- **Encourage repair and reuse**
Where appropriate, promote a culture of repair over replacement with colleagues. This might include signposting schools to local repairers or sharing basic maintenance tips.
- **Continue to use digital tools thoughtfully**
Continue to make use of digital registers, resources, and communications where possible to reduce printing and travel, acknowledging the challenges of ensuring digital accessibility, musical and educational quality, and safeguarding.
- **Plan travel efficiently**
If you travel between schools or venues, consider how your schedule might be optimised to reduce mileage. This could be discussed with line managers and service coordinators as part of wider, coordinated efforts.
- **Incorporate environmental themes into teaching**
Where it fits naturally and offers meaningful creative opportunities, explore environmental topics through repertoire, composition, or discussion. This can help raise awareness and connect music to real-world issues.
- **Share ideas and learn from others**
Talk to colleagues about what's working for them. Peer support can help overcome barriers and spark new ideas.

- **Raise awareness respectfully**
If you notice opportunities for more sustainable practices in your setting, consider raising them constructively with managers or school staff. Your insights will be valuable.
- **Support youth voice and creativity**
Encourage learners to express their views on environmental issues through music-making, songwriting, or performance projects, where appropriate. In doing so, remain mindful of relevant wellbeing and safeguarding considerations, policies and support.
- **Engage with training and resources**
Take up any CPD opportunities related to sustainability, such as carbon literacy or eco-conscious teaching practices, if available through your service, hub or partner organisations. Suggest such training if not already available.
- **Be kind to yourself and others**
Recognise that not everything is within your control. Focus on what you can influence and celebrate progress, even if it's incremental. The signposts to resources on eco-anxiety in appendix 1 might be helpful.

10.5 Limitations and recommendations for future research

While this research offers a valuable and wide-ranging overview of environmental sustainability practices across music services, hubs, and partner organisations in the UK, several limitations should be acknowledged. Firstly, although the study aimed to reflect perspectives from across all four nations, it was not possible to secure an interview with a representative from a Northern Irish music service. Additionally, some regions of England—such as the North East and South West—were underrepresented in the questionnaire responses, as were participants from Wales and Northern Ireland more broadly. This uneven geographical representation may slightly limit the generalisability of findings across the UK.

The research also relied heavily on self-reported data gathered through surveys and interviews. While this approach enabled the collection of rich qualitative insights, it may be subject to optimism bias or inconsistencies in interpretation. For instance, those members of the workforce who were already more engaged in the relevant issues might have been more likely to come forward and participate. Furthermore, relatively few participants completed the optional demographic questions, which restricted the ability to analyse how factors such as gender, ethnicity, or disability may intersect with sustainability practices and experiences.

The study also provides a snapshot in time and does not track the long-term impact or evolution of sustainability initiatives. While many participants expressed a desire to evaluate the effectiveness of their work in this area, the research was unable to consider quantitative environmental impact assessments, such as carbon footprint analysis. It is also important to note that due to logistical constraints, the research team were unable to engage directly with children and young people. As a result, the report reflects adult perspectives on youth involvement in sustainability, rather than capturing the voices of young people themselves.

With these limitations and challenges in mind, we would encourage future research into the following important areas:

- Follow-up studies should be conducted to track the development and longer-term impact of sustainability initiatives, including changes in policy, practice, and outcomes over time.
- Focused case studies could be undertaken to explore in depth the enablers and barriers experienced by specific music services, hubs and partners whilst implementing innovative or exemplary sustainability practices.
- Methodologies should be developed to quantitatively assess the environmental impact of music education operations, such as emissions from travel, energy consumption and waste reduction.
- Children and young people should be directly involved in future research design and data collection to ensure their perspectives on sustainability in music education are authentically represented.
- Comparative research should be carried out across England, Scotland, Wales, and Northern Ireland to examine how differing policy frameworks and funding structures influence sustainability practices.
- Research should be conducted into the specific challenges and opportunities faced by freelance and peripatetic music teachers in adopting sustainable practices, including access to CPD and travel efficiency.
- Evaluations should be undertaken to assess the effectiveness of carbon literacy and sustainability-related CPD in changing practice and attitudes within the music education workforce.
- Studies should explore the environmental implications of increased digital delivery, including both the benefits and any unintended consequences of online tuition, virtual performances, and digital administration.

- Research should investigate the full lifecycle of musical instruments in educational settings, including procurement, maintenance, repair, reuse, and disposal, to inform circular economy strategies.
- Policy implementation studies should be conducted to understand how national and local sustainability policies are interpreted and enacted at service level, and what forms of support are most effective in translating policy into practice.

11 References

- Arts Council of Northern Ireland (2024). *Using the arts to tackle climate change*.
<https://artscouncil-ni.org/news/using-the-arts-to-tackle-climate-change>
- Arts Council of Wales (2025a). *A plan for climate justice and the arts*.
<https://arts.wales/about-us/strategy/plan-for-climate-justice-and-arts>
- BERA (2024). Ethical guidelines for educational research (5th ed.). British Educational Research Association. Please generate an APA7 reference for this: <https://www.bera.ac.uk/publication/ethical-guidelines-for-educational-research-fifth-edition-2024>
- Betternotstop (2022). *More than music: Exploring positive impact at UK music festivals*.
<https://visionsustainableevents.org/wp-content/uploads/2022/06/More-Than-Music-Report-2022-1.pdf>
- Brennan, M, Connelly, A, & Lawrence, G (2016). *Fields of Green: Towards sustainable Scottish music festivals*. Creative Carbon Scotland.
https://research.manchester.ac.uk/files/46244322/CCS_FOG_guide_FINAL.pdf
- Buchborn, T., Burnard, P., Hebert, D.G. and Moore, G. (2022). 'Reconfiguring music education for future-making: how?', *Music Education Research*, 24(3), pp. 275-281.
<https://doi.org/10.1080/14613808.2022.2076821>
- Castang, P (2022). *Music and climate change*.
https://www.musiceducationcouncil.org.uk/_files/ugd/4fbc45_5c69821b4c15455aa92854b84bcab369.pdf
- Creative Scotland (n.d.). *How should an applicant consider sustainability in their application?*
<https://www.creativescotland.com/contact-us/faqs/funding-faqs/multi-year-funding/stage-one/application-process-details/how-should-an-applicant-consider-sustainability-in-their-application>
- Devine, K. (2015). 'Decomposed: a political ecology of music', *Popular Music*, 34(3), pp. 367–389.
<https://doi.org/10.1017/S026114301500032X>
- DfE (2022a). *Sustainability and climate change strategy*.
<https://www.gov.uk/government/publications/sustainability-and-climate-change-strategy>
- DfE (2022b). The power of music to change lives: a national plan for music education,
https://assets.publishing.service.gov.uk/media/62bc1242d3bf7f292040d364/The_Power_of_Music_to_Change_Lives.pdf
- Galniche, M. (2022). 'Music education, ecology and democracy', *Music Education AMP*, 1 Sept
<https://blogit.uniarts.fi/en/post/music-education-ecology-and-democracy>
- Green Schools Project & Students Organising for Sustainability UK (2021). *Schools sustainability survey 2019–20 & 2020–21*. <https://www.sos-uk.org/research/schools-and-sustainability>
- Harvard Business School Online. (2020). *What is the triple bottom line?* <https://online.hbs.edu/blog/post/what-is-the-triple-bottom-line>
- Heidenmark Cook, P, & Wirén, L (2024). *Embedding sustainability: How to drive organizational transformation*. Kogan Page.
- Hollo, T. (2018). 'Key change: the role of the creative industries in climate change action', in Rimmer, M. (ed.) *Intellectual property and clean energy*. Springer.

- Julie's Bicycle (2009). *Jam Packed: Audience travel emissions from festivals*.
<https://www.juliesbicycle.com/resource/jam-packed-audience-travel-report/>
- Julie's Bicycle (n.d.). *Creative Climate Tools: Beyond Carbon*.
<https://juliesbicycle.com/our-work/creative-green/creative-climate-tools-3/>
- Julie's Bicycle, Attitude is Everything, & A Greener Future (2023). *No climate action without us: Toolkit for accessible and sustainable live events*. Julie's Bicycle.
<https://juliesbicycle.com/resource/no-climate-action-without-us-toolkit/>
- Keep Wales Tidy (2021). *Eco-Schools environmental review: Primary schools*.
<https://keepwalestidy.cymru/eco-schools/wp-content/uploads/sites/4/2021/09/Primary-Environmental-Review.pdf>
- Local Government Association (2022). *Climate change survey 2021*.
<https://www2.local.gov.uk/publications/climate-change-survey-2021>
- Local Government Association (2024). *Net zero strategy and support: Final report*.
<https://www2.local.gov.uk/sites/default/files/documents/Net%20Zero%20-%20Strategy%20and%20Support%20-%20Final%20-%20Report.pdf>
- McCourt, A. (2024). 'What makes a great music teacher?', Ensemble Magazine, no. 123.
https://www.musicteachers.org/wp-content/uploads/2024/12/ensemble_summer_2024_no.123.pdf
- Ojala, M., and Lakew, Y. (2017). 'Young people and climate change communication', in Matthew C. Nisbet, M.C., Shirley S.H., Markowitz, E., O'Neill, Mike S.S. and Thaker, J. (eds.) *Oxford Research Encyclopedia of Climate Science [Online]*. Oxford: Oxford University Press.
<https://doi.org/10.1093/acrefore/9780190228620.013.408>
- pBone Music (2023). *Wales Case Study: Delivering Music for All*.
<https://blog.pbonemusic.com/wales-case-study>
- PLASA & #WeMakeEvents (2024). *Sustainability survey report 2024: Live events and entertainment technology industry*. PLASA.
<https://www.plasa.org/plasa-wemakeevents-sustainability-survey-2024/>
- Purves, R & Himonides, E (in press). Towards Environmentally-Sustainable Practices for Teaching Music With Technology. In: Philpott, C, Spruce, G., eds. *Debates in Music Teaching* (2nd ed.). Routledge.
- Purves, R., & Himonides, E. (2024). Climate change and sustainability education in music: the current situation in England. *Diskussion Musikpädagogik*, (102), 0.1-0.7. Retrieved from <https://www.junker-verlag.com/dmp-102-o-a>
- Shaw, D, Brennan, M, McKeever, D, & Wong, M (2022). 'Turn Up the Volume' survey: *Music fan attitudes towards climate change and music sustainability – Initial report*. University of Glasgow.
<https://eprints.gla.ac.uk/270449/>
- Shevock, D J (2018). *Eco-Literate Music Pedagogy*. Routledge.
- Shevock, D.J. (2019). 'Waste in popular music education: rock's problematic metaphor and instrument-making for eco-literacy', *Topics for Music Education Praxis*, Mayday Group.
https://topics.maydaygroup.org/articles/2019/Shevock_2019.pdf

Smith, T.D. (2021). 'Music education for surviving and thriving: cultivating children's wonder, senses, emotional wellbeing, and wild nature as a means to discover and fulfill their life's purpose', *Frontiers in Education*, 6, 648799. <https://doi.org/10.3389/feduc.2021.648799>

Travel Scotland (2025). *Free inter-island ferry travel introduced for young people in Orkney, Shetland and the Outer Hebrides*. <https://www.transport.gov.scot/news/free-inter-island-ferry-travel-introduced-for-young-people-in-orkney-shetland-and-the-outer-hebrides/>

Sustainable Schools (2012). *Sustainability Assessment Questionnaire (SAQ) for colleges and universities*. <https://www.iau-hesd.net/sites/default/files/documents/saqforhighered.pdf>

UCL Centre for Climate Change and Sustainability Education (2022). *Teaching climate change and sustainability: A survey of teachers in England*. University College London. <https://discovery.ucl.ac.uk/id/eprint/10173208/>

UNESCO (2024). *Strengthening our commitment to education for sustainable development*. <https://www.unesco.org/en/articles/strengthening-our-commitment-education-sustainable-development>

Wales Arts International (2025). *International strategy framework 2024–2034*. https://arts.wales/sites/default/files/2025-04/WAI_International%20Strategy%20Framework%202024-2034.pdf

Welsh Government (2022a). *National plan for music education*. <https://www.gov.wales/national-plan-music-education>

Welsh Government (2022b). *Innovative procurement initiative makes a noise*. <https://www.gov.wales/innovative-procurement-initiative-makes-noise>

World Commission on Environment and Development (1987). *Our Common Future*. <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>

12 Appendices

12.1 Appendix 1: Sources of support and further information

- [The National Education Union Climate Change Network:](https://neu.org.uk/climate-change)
<https://neu.org.uk/climate-change>
- [UCL Centre for Climate Change and Sustainability Education:](https://www.ucl.ac.uk/ioe/departments-and-centres/centres/ucl-centre-climate-change-and-sustainability-education)
<https://www.ucl.ac.uk/ioe/departments-and-centres/centres/ucl-centre-climate-change-and-sustainability-education>
- [Teach the Future:](https://www.teachthefuture.uk/)
<https://www.teachthefuture.uk/>
- [Ministry of Eco Education:](https://www.ministryofeco.org/)
<https://www.ministryofeco.org/>
- [‘Hold This Space’ website:](https://holdthis.space/)
<https://holdthis.space/>
- [Advice from Greenpeace:](https://www.greenpeace.org.uk/news/climate-anxiety-resources-to-energise-action/)
<https://www.greenpeace.org.uk/news/climate-anxiety-resources-to-energise-action/>
- [Advice from Friends of the Earth:](https://friendsoftheearth.uk/climate/ecoanxiety-how-turn-fear-hope)
<https://friendsoftheearth.uk/climate/ecoanxiety-how-turn-fear-hope>

12.2 Appendix 2: further reading and resources

Brennan, M (2021). 'The Infrastructure and environmental consequences of live music', in Devine, K. and Boudreault-Fournier, A. (eds.) *Audible infrastructures: music, sound, media*. New York: Oxford University Press pp. 117-134

Cheng, Y. (2015). *Investigating students' learning of sustainable development through music education: an exploratory study at Key Stage 3 in England*. Doctoral thesis, London: Brunel University.

DeLorenzo, L. C., and Silverman, M. (2022). *Music lesson plans for social justice: a contemporary approach for secondary school teachers*. New York: Oxford University Press.

Devine, K. (2015). 'Decomposed: a political ecology of music', *Popular Music* 34(3), pp.367-389. <https://doi.org/10.1017/S026114301500032X>

Doull, K., & Ogier, S. (Eds.). (2024). *Teaching climate change and sustainability in the primary curriculum*. Learning Matters. [See the chapter on music in particular].

Foster, R. & Sutela, K. (2024). Ecosocial approach to music education, *Music Education Research* 26(2), 99-111. <https://doi.org/10.1080/14613808.2024.2319586>

Helmuth, M. (2021). 'Can computer music save the earth?', *Emille, the Journal of Korean ElectroAcoustic Music Society* 19, pp.13-31. http://keams.org/emille/emille/emille_19/emille_19_2.html

Lindborg, P. (2022). *Towards Sustainable Sonic Arts Practices: Less Glitz, More Grit*. Sound, Ecology and Climate Changing lecture series, Music and Recording Art School, University of China, Beijing. <http://dx.doi.org/10.13140/RG.2.2.35646.87368>

Mosley, B. (2020). 'Environmental sustainability in the audio engineering curriculum', in. Walzer, D. and Lopez, M. (eds.) *Audio education: theory, culture, and practice*. New York: Routledge, pp. 151- 166

Purves, R & Himonides, E (in press). Towards Environmentally-Sustainable Practices for Teaching Music With Technology. In: Philpott, C, Spruce, G., eds. *Debates in Music Teaching* (2nd ed.). Routledge.

Purves, R., & Himonides, E. (2024). Climate change and sustainability education in music: the current situation in England. *Diskussion Musikpädagogik*, (102), 0.1-0.7. Retrieved from <https://www.junker-verlag.com/dmp-102-o-a>

RGS (n.d.). 'Greening Glastonbury', Royal Geographical Society, <https://www.rgs.org/schools/resources-for-schools/mapping-festivals/greening-glastonbury>

Shaw, D., Brennan, M. , McKeever, D. and Wong, M. (2022) 'Turn up the volume' survey: music fan attitudes towards climate change and music sustainability - initial report', Glasgow: University of Glasgow. <https://eprints.gla.ac.uk/270449/1/270449.pdf>

Shevock, D J (2018). *Eco-Literate Music Pedagogy*. Routledge.

Shevock, D. J., & Bates, V. C. (2019). A Music Educator's Guide to Saving the Planet. *Music Educators Journal*, 105(4), 15–20. <https://doi.org/10.1177/0027432119843318>

Shevock, D. J., & Bates, V. C. (2025). *Music lessons for a living planet : ecomusicology for young people* / Daniel J. Shevock, Vincent C. Bates. Routledge.

Smith, T.D. (2021). 'Music education for surviving and thriving: cultivating children's wonder, senses, emotional wellbeing, and wild nature as a means to discover and fulfill their life's purpose', *Frontiers in Education*, 6, 648799. <https://doi.org/10.3389/feduc.2021.648799>

St. George, S., Crawford, D., Reubold, T., and Giorgi, E. (2017). 'Making climate data sing: using music-like sonifications to convey a key climate record', *Bulletin of the American Meteorological Society*, 98(1), pp.23–27. <https://doi.org/10.1175/BAMS-D-15-00223>.

Touzeau, M. (2011). *The green musician's guide: sound ideas for a sound planet*. Boston: Course Technology/Cengage Learning.

12.3 Appendix 3: Initial scoping survey

Environmental Sustainability Practices in Music Hubs and Services

Principal investigator: Dr Ross Purves, UCL Institute of Education, r.purves@ucl.ac.uk

Please can you help set out the scope and foci of our research? We want the results to be as relevant and useful as possible to music services, hubs and partner organisations. The more detail you can provide at this early stage, the better we can tailor our work to the needs of the sector. Thank you!

About You

I work in a music service or hub. ☐

I work in an organisation which partners with a music service or hub. ☐

I work in another kind of organisation/in another context. ☐

Within my organisation, I am involved in teaching and learning activities. ☐

Within my organisation, I am involved in administrative or operational support activities. ☐

I have managerial or leadership responsibility within my organisation. ☐

1. What kinds of information or guidance relating to environmental sustainability would be most useful to you in your current role?

2. Do you have any thoughts on the most useful ways in which our research findings might be presented or communicated?

3. Who do you think the research team should be talking to about this topic?

Please can you suggest any organisations within the local government, arts or music education sectors who might have relevant experience and information? For data protection reasons, please avoid giving names of individuals – the research team can follow up as needed.

4. In which areas, if any, are music services, hubs and partner organisations currently making greater progress with embedding environmental sustainability in their work?

5. What, if any, are the current challenges facing music services, hubs and partner organisations wishing to embed environmental sustainability further in their work?

6. What roles, if any, might music services, hubs and partner organisations have in integrating *education for sustainable development* into their teaching and learning provision?

UNESCO defines 'education for sustainable development' as providing 'the knowledge, skills, values and agency to address interconnected global challenges including climate change, loss of biodiversity, unsustainable use of resources, and inequality'.

7. Do you have any further suggestions about what should be covered in this research, or is there anything else you would like to tell us about this topic?

Thank you very much for your help!

Please leave this questionnaire with your completed consent form for collection or hand them back to the researchers.

12.4 Appendix 4: Interview schedule

1) Awareness of organisations and collaboration

(Q14 link) Which music and arts-related organisations and initiatives active in the field of environmental sustainability are you most aware of?

Have you worked with any of these organisations or initiatives? If so, what were your experiences?

In what ways do you feel collaborating with other organisations and initiatives has benefited your hub's/service's environmental sustainability work?

Are there any areas in which you feel you require more support from organisations and initiatives?

2) Documentation and policies

(Q18 link) Does the music hub where you work have an environmental sustainability policy? If so, could you tell me more about the process of its development?

(Or) Are you planning to create a policy? If so, could you tell me about the planned process for its development?

Could you elaborate on the development process and any consultation process that took place? (For example, with staff, other schools or hubs.)

How have you incorporated plans for monitoring progress within the policy? (Do you feel this is important? If so, why?)

(Reviewed? How often?)

Which policies or documentation influenced the formation of your policy? /How was the creation of your policy influenced by other policies or documentation?

How is environmental sustainability incorporated into other areas of documentation in your workplace?

Can you describe impact/value do you think having an environmental sustainability policy within the workplace has?

3) Teaching and learning-related activities

(Q29 link) How have you raised awareness of environmental sustainability through teaching and learning activities?

Which activities do you consider to be easier to undertake and why?

Which activities do you consider to be more difficult to undertake and why?

Are there any teaching and learning activities to promote environmental sustainability that you wish to particularly prioritise? If so, can you explain why?

What are the highlights you have experienced when undertaking one of these activities?

What are the biggest challenges you have encountered?

4) Transport and logistical matters

(Q40 link) Which steps has your music hub taken to support/enable more sustainable travel practices?

(How many of these do you think are detailed in documentation?)

How have online meetings or teaching been utilised and to what effect?

In what ways has public transport been promoted or supported as an option for staff/students/audiences? Could you describe any impact you have noticed from this promotion or support?

Is the viability of sustainable travel options considered when selecting venues for teaching or performances? If so, could you please elaborate.

In which areas do you think it is most challenging to improve travel practices and why?

In which areas do you think it is easier to address and improve travel practices and why?

Which aspects do you think the music hub should prioritise when seeking to improve the sustainability of travel for its staff, students and audiences? Why?

5) Operational matters (other than transport and logistics)

(Q51 link) Which sustainable operational practices has the music service/hub you work with implemented?

(For example, energy usage, maintenance of buildings, recycling or repairs, sustainable procurement of resources, incorporating environmental sustainability into decisions around venue choices, dedicated budgets)

(How many of these do you think are detailed in documentation?)

Which of these actions do you consider easier to implement and why?

Which of these actions do you consider more difficult to implement and why?

Which of these actions do you think should be prioritised and why?

6) Collaborations

(Q62 link) Which organisations has your hub/service collaborated with in relation to environmental or sustainability-related activities? Could you please elaborate on the nature of these collaborations?

What factors have you found contributed to the success of these collaborations?

In your experience, how have these collaborations been instigated, led and funded?

Please can you share any ways in which children and young people (CYP) have been involved in decision-making around environmental or sustainability-related activities?

Are there any areas in which you find it easier to involve CYP in this aspect?

Are there any areas in which you find it more difficult to involve CYP in this aspect?

Are there any areas you feel should be prioritised to involve CYP in this aspect?

Can you share any experiences you have had with involving CYP into environmental and sustainability related decision-making or activities that have been particularly effective or successful? What do you think contributed to the success in these cases?

7) Summary

Overall, what do you feel hubs/services are doing well in terms of environmental sustainability work?

What are the biggest challenges you have faced when trying to implement environmental sustainability projects/processes?

What work that hubs/services have done do you feel makes the most difference?

Can you outline what type of support would be helpful to aid further environmental sustainability work in your organisation?

How could Music Mark in particular support your current environmental sustainability work and your future plans in this area?

Is there anything else you would like to share or comment upon regarding any of the matters we have discussed?