

UK Museum COP Report

Tate Modern

31st October 2023

Chair's Foreword

The UK Museum COP held on 31 October 2023 arose from the feeling that there is something distinctive about museums' potential contribution to the global issue of climate action, due to their long-term perspective, and that there are a host of practical issues that need to be resolved. There is a great deal of often repetitive or slightly contradictory guidance, and much re-inventing of the wheel. The aim of the conference was to try to gain consensus from the leaders of UK museums, and other key sector stakeholders, on concerted action to put museums on a more sustainable path.

The conference itself was the culmination of a great deal of effort by a series of working groups on specific issues, and by the NMDC executive team. The sessions on the day mostly resulted in strong agreements on the way forward, facilitated by live voting on key proposals in the room.

I would like to thank all of the working group leads, the NMDC team and all of the participants for a very successful day. The true mark of success will be for the agreed actions to be taken forward in a comprehensive manner.

Nick Merriman
Chair, UK Museum COP

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Note:

The actions and recommendations in this report will be taken forward by NMDC and/or sector partners. The commitments made on the day at the COP event were taken as broad consensus on the necessary direction of travel. This is an acknowledgement that some individuals from organisations in attendance participated in the spirit of sector collaboration and were not specifically committing to certain actions for their organisations.

Session 1: Welcome to COP

Speaker: Maria Balshaw, Director, Tate and Chair, NMDC

Welcome

Maria Balshaw (MB) thanked the NMDC team for organising the COP event, and thanked attendees for making the journey, particularly those who travelled long distances from across the four nations.

Before starting formal business MB acknowledged the shocking events in Israel and Gaza and the fear for Israeli and Palestinian civilian lives. MB noted that museums are places that hold objects, histories and stories that can help us understand our complex histories, our present, and our role as citizens of the world. MB expressed great sadness and empathy for all those directly and indirectly affected by the conflict and hoped that UK Museum COP discussions could be entered into with a spirit of focus and even optimism about how museums might act to address the long term threat to our planet.

MB set out the background to UK Museum COP, the culmination of several years' work. NMDC members recognise that tackling the climate and biodiversity crises requires all of us to be engaged, and NMDC feel that as a group this is an area where we can effect real change. As well as working collectively in order to reach net zero targets and protecting the planet for future generations – something particularly relevant for museums – we all need to act in our own spheres. MB highlighted some of the work done at Tate over the last five years, also acknowledging that many museums are doing huge amounts, and that everyone including Tate can and needs to do more:

- Tate set a target in 2018 to reduce carbon emissions by 50% by 2023 (from a baseline year of 2008), and they are already at a 60% reduction. Activities include monitoring and reductions in travel, waste, water, continuous investment in how energy needs are met, future-proofing buildings, upgrading lighting – things that many of us do in our individual institutions. Tate has an 75% rate of recycling across the whole estate and nothing goes to landfill. All directors and senior colleagues at Tate are required to undertake Carbon Literacy Training and then become accredited leaders and act as advocates for their own area.
- Tate is also implementing a biodiversity action plan including wildflower planting at Tate Modern and installing a pond in the Tate Britain staff garden. A new garden being developed in front of Tate Britain aims to be an exemplar of making a difference to nature and biodiversity in an urban context through careful planting.
- Tate is a signatory to the CIMAM (International Committee for Museums and Collections of Modern Art) declaration on carbon reduction and an active member of the Gallery Climate Coalition and the Bizot Group (discussed in Session 8).
- The climate crisis is also felt in Tate's art, not only by showing the work of artists whose own practice addresses the climate emergency, but also trying to embed green principles in the way we show art and the way we manage and think about our collection. Olafur Eliasson's major exhibition a couple of years ago began a process of carbon auditing Tate's exhibitions, as the artist was keen to be able to demonstrate the resources that had gone into his exhibition and to use that exhibition as a moment of advocacy. Tate developed Kara Walker's *Fons Americanus*, the gigantic sculpture in the Tate Modern Turbine Hall, as a zero waste sculpture, made of cork which was recycled into the ongoing production process by the company Tate worked with. Tate also operates a traffic light system for assessing works coming into the collection, so if an acquisition will make heavy environmental demands that will be taken into consideration when making decisions on whether to acquire.

MB stated that now is the point where we have to change what we do. She noted that some international museum directors do not see this kind of work as a priority, and that their role is purely to look after heritage for the future – UK colleagues are often much further ahead than many of our international peers and we each have to act as advocates for this work in order to fundamentally reshape thinking across the global museum sector. MB urged colleagues to move with a spirit of real purpose, and ensure we leave a different legacy for the museum directors that come after us.

Session 2: Introduction and Ethics

Speaker: Nick Merriman, Director, Horniman Museum and Gardens and Chair, UK Museum COP

Introduction

Background to UK Museum COP

Nick Merriman (NM) thanked Maria and thanked so many colleagues for attending, including leaders of the UK's national and regional museums, sector support organisations, funders, sustainability leads and members of the working subgroups. NM noted the recent announcement that the 1.5 degrees limit agreed at the Paris Climate Agreement in 2015 will now be breached in the mid 2030s.

NM outlined the background to Museum COP and the format of the event. Early in 2022 NMDC held a conference at the Whitworth in Manchester on 'Museums and Galleries Responding to the Climate and Ecological Crises' (details and papers and videos from that are available on the NMDC website). Feedback showed that while it was very well received, it did have the usual conference format of presentations and questions from the audience, and there was an overwhelming view from participants of the need for less talking and more action. After some discussion within NMDC it was agreed to form working subgroups on key issues, who would meet several times and then present actions and recommendations on which colleagues could vote on during an in-person event. This was modelled on the COP – 'Conference of the Parties' – structure, whereby work is done by subgroups in advance, with the 'Parties' then coming together to hopefully agree action.

Museum COP subgroups

NM briefly outlined the other subgroups:

- Ethics – looking at the ethical issues of tackling the climate and biodiversity crises.
- Heritage buildings, planning and adaptation – looking at the tensions between the requirements around heritage legislation and the desire to do the right thing in terms of decarbonisation.
- Funders – looking at whether key sector funders could provide more incentive or leverage for greater action on tackling the climate and biodiversity crises.
- Scope 3 – most museums have plans around Scope 1 and Scope 2 but there is a lot of confusion and uncertainty about what should be measured for Scope 3 emissions and what should be done to reduce them.
- Workforce and skills – discussing the workforce needed in museums to tackle the climate and biodiversity crises, and the skills that are needed across the sector.
- Collections – not a formal working subgroup but a series of speakers on collections issues particularly around environmental conditions, with some interesting proposals from both national and international discussions.

Biodiversity

Finally, NM noted that there are two COPs – the climate COP which gets the most publicity, meeting in the UAE in November 2023, and the global COP on biodiversity. In planning for the first UK Museum COP, whilst acknowledging climate and biodiversity as interlinked crises, the focus would be mainly on climate and environmental issues. This is because there are so many issues related to collections and buildings which are specific to the heritage sector that there is a huge amount to discuss. If there is appetite a future meeting will look in more detail at biodiversity issues in the museum sector, in recognition that this is a major issue where museums can have a real impact, particularly through public engagement. The first UK Museum COP is an avowedly internal sector-focussed event, to which attendees have all been invited as representatives of the breadth of the sector.

The hope is that after each working subgroup presents its proposals there will be a consensus through voting on the Slido app, both on actions for NMDC members and actions that NMDC will call on others to take. NM urged colleagues to be brave and ambitious in tackling the emergency situation we all face.

Ethics

Speaker: Nick Merriman, Director, Horniman Museum and Gardens and Chair, UK Museum COP

NM thanked the members of the subgroup on ethics for their time and engagement. The subgroup had a series of meetings wrestling with ethical issues, and discussed these questions; What does the museum sector have to say about the climate crisis? As quite a small sector, what is our locus, and why should anybody listen to us?

NM referred colleagues to the draft statement from the Ethics subgroup in their briefing packs. The statement essentially said that museums have a unique status along with others in the heritage sector in taking the long term view beyond short term cycles of politics and economics, and thus feel an ethical and moral responsibility to speak out about accelerating action.

NM invited attendees to discuss the statement with colleagues on their table and then requested comments – noting that the subgroup had already discussed the wording in detail, NM was keen for views on the broad sweep of the statement rather than specific wording:

Points raised in discussion and on the Slido request for comments included:

- The opportunity for museums to use their narratives and collections objects to tell stories around climate. Museums can make their biggest contribution by using their expertise to ensure the public fundamentally understand what is happening and how it has been caused, which is a base from which museums can speak with authority.
- The question of who leads and why, and the danger of potentially creating barriers and polarisation. Museums leaders do have an ethical obligation to take action but it should be in a way that serves the public and the greater good – the statement suggests we intrinsically know that, but we have a duty to always be at the service of the public.
- Whether it was a deliberate decision not to tackle the issue of funding sources in the statement, and whether funders are allies or enemies of action on climate change. NM responded that the statement calls upon funders to help but does not distinguish between different funders, and that the subgroup made the assumption that museums already subscribe to the MA and ICOM Codes of Ethics and are already ethical in the funding they choose.
- It is not enough for funders to be ethical on museums' behalf, organisations need to have their own robust ethical processes around the selection of individual and private philanthropy. The Charity Commission obliges museums to take money for the public good as long as it serves their charitable purposes, which can contradict organisational decisions to not take money from a particular source.

NM noted the various suggestions for wording changes and proposed the addition of a point on engaging the public to take action to live more sustainably, including through stories around the history of the climate crisis. He then invited attendees to vote on the Slido app on whether they endorsed the statement – asking for votes based on the spirit of what was just discussed and including the proposed tweaks to the wording. The results were overwhelmingly in favour:

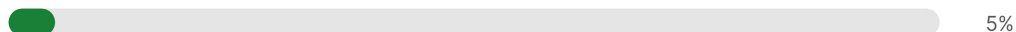
Do you endorse the ethics statement?

Multiple Choice Poll 88 votes 88 participants

Yes - 84 votes



No - 4 votes



NM confirmed that the subgroup would amend the statement in light of the discussion and thanked colleagues for their support – NM stated that the vote demonstrated that the UK sector endorses a commitment by museums to tackling the climate crisis, and sets out some principles that we can begin to work with.

The final ethics statement, including amendments:

Statement from UK Museum COP Ethics subgroup

In looking after collections for future generations, museums are amongst a small group of institutions of the long-term, mandated to take a perspective beyond the short term cycles of politics and economics. Given this, leaders of UK museums feel a responsibility to speak out about the current climate and biodiversity crises and call upon UK politicians and businesses to accelerate action to mitigate this crisis before it is too late. We are already around or beyond crucial tipping points: global temperatures are higher than they have ever been since humans emerged as a species, and extinctions are occurring at around a thousand times the normal rate. There is an existential threat to the world we have become accustomed to.

Many museums have collections relating to the Earth's five previous mass extinction events, and we are now in the midst of the sixth, the Anthropocene. UK museum leaders feel they have an ethical obligation to take action to alleviate that damage. Museums will:

- Use relevant collections, programmes and exhibitions to engage audiences with the climate crisis and inspire them to take positive action.
- Introduce more sustainable collections management including using disposal more actively.
- Develop and implement decarbonisation plans which include relaxing carbon-hungry environmental parameters.
- Undertake measures to mitigate the impacts of extreme weather and adapt to new challenges.
- Increase biodiversity in our green spaces.

Like all organisations across the country, museums need assistance with decarbonisation, mitigation and adaptation. We call upon business, funders, current and future governments to facilitate this, and to maintain and deliver on commitments to achieve net zero carbon emissions and protect our natural environment.

November 2023

Action 1

[Ethics subgroup] Make the minor amendments to the statement as discussed.

[NMDC staff] Make the statement public and share with the press (note the above is the final agreed version with amendments).

Session 3: Heritage Buildings, Planning and Adaptation

Speaker: Hedley Swain, CEO Brighton and Hove Museums and Chair, Heritage Buildings subgroup

Hedley Swain (HS), Chair of the Heritage Buildings subgroup opened the session, advising attendees would have the opportunity to vote on two specific issues which the heritage subgroup had discussed and recommended.

HS spoke about his own journey to understand the urgency and scale of the problem museums face which began when Brighton Museum was awarded a MEND (Museum Estate and Development Fund) grant to repair the 100-year-old roof. The architects working on the project advised that replacing the single glazing would be bad for energy use, and urged a more sustainable option, however, the heritage building consultant at the City Council preferred that the roof be replaced like for like regardless of sustainability concerns because of its listed status.

Brighton's Royal Pavilion Gardens constantly faces flood or drought. The Royal Pavilion, which 200 years ago was famous for its heating, now freezes every winter forcing the museum staff to use measures to keep warm including thermals and use of single bar electric heaters, whilst facing extreme heat in summer. Previous investments had focused on the reconstruction of the Georgian interiors and not energy conservation.

Every major rainfall brings floods which need to be immediately mitigated as the buildings cannot cope with the climate extremes we now face. HS noted that we need action, we need it now and we need big change.

HS then thanked the working subgroup that had produced the recommendations, Suzie and Kathryn at NMDC, Nick Merriman for leading the work and other stakeholders who had shared their expertise including Historic England, Historic Royal Palaces, National Trust, South Ken Zen+, the Local Government Association and Buro Happold.

Recommendations and statement

In introducing the recommendations, HS caveated and acknowledged that many of the specifics are primarily anglo-centric, but noted gratitude for the discussions and input from colleagues in Wales, Northern Ireland and Scotland. HS acknowledged that all nations are committed to change and are on a journey but some of the specific asks on legislation and funding refer to the barriers caused by the English system. HS advised it was the hope of the subgroup that the statement and recommendations would still resonate with the whole of the UK and for example, a single reporting structure could be something to discuss and share across the UK.

Heritage Buildings, Planning and Adaption subgroup Commitments, Recommendations and Call to Action

As a group we reaffirm the Climate Emergency as it relates to our buildings and sites and recognise the urgency for action now.

As guardians of heritage buildings, museums represent an important sub-set of the wider built heritage, and we must work with the wider sector as well as with Government and strategic bodies. However, our overtly public role, the much-loved nature of our sites and the complex and particular nature of our buildings and estates mean we must be at the vanguard of action.

Legislation and planning

There is an urgent need for legislation and planning guidance to change so that the need to make our buildings carbon efficient and able to deal with extreme weather is given **precedence over heritage concerns**¹. [Wording A] We recognise that this is a step-change from past practice but have no qualms in recommending it. We applaud Historic England's willingness to embrace radical change and support them fully in their efforts. We must encourage local authority planning functions to fully embrace this change. Having funding relationships with Government and Arts

Council England and our adherence to the Accreditation Standard gives us a unique status to drive this change for public benefit.

Alternative text:

1. There is an urgent need for legislation and planning guidance to change so that the need to make our buildings carbon efficient and able to deal with extreme weather is given **as much consideration** as heritage concerns. [Wording B]

Funding

Making all our buildings carbon efficient and adapting them to mitigate the effects of extreme weather will seem incredibly expensive, will take time to implement and is currently un-costed. However, we strongly believe that the impact of this investment will be significant in terms of Government's own net zero commitment, and in safeguarding the heritage assets in our care for current and future generations.

It is essential that we do understand all the costs involved (direct and indirect) and work must be undertaken to quantify this including understanding the costs involved for different types of building.

It is important that we recognise the complex and very different funding and governance models for museums that must be accommodated in any planning.

We applaud the Government MEND scheme for museums and recommend that this scheme is extended and expanded to focus on museums changing their buildings to fight the effects of climate change. We recommend that for the foreseeable future **any** new central Government funds for museums should be directed towards making our buildings and operations carbon neutral and to protect them against the effects of climate change.² [Wording A] We ask the National Lottery Heritage Fund and Arts Council England to take a similar approach.

We recognise the need for a detailed cost benefit analysis that shows how investment in our buildings will bring long-term benefits to museums and society.

Alternative text:

2. We recommend that for the foreseeable future **new** central Government funds for museums should be directed towards making our buildings and operations carbon neutral and to protect them against the effects of climate change. [Wording B]

Skills

More specialist environmental skills are needed in the sector, and available to the sector (including its governance), so that museums make the right choices in altering their buildings. We recommend that Arts Council England working with Historic England and DCMS invests in skilled staff to provide museums with the advice they need, and help museums build their own skills.

Signposts to best practice and case studies

We note that there is a vast amount of activity at the moment that is producing many case studies, toolkits, guidance papers, research etc. about how to address the climate crisis for heritage buildings including museums. It is essential that there is central coordination to avoid duplication of effort, ensure there are exemplar case studies available for different building types and circumstances, and in all cases, museums are directed towards the best possible advice. It is also essential that we have a single unified reporting structure across all funding bodies.

Working together and pooling resources

Across our sector there are organisations and partnerships that offer a critical mass for change (this includes The National Trust, Historic Royal Palaces, English Heritage, and South Ken Zen+). We also recognise that museums find themselves in very different circumstances. We should all work together, coordinating effort together and supporting each other so the whole sector moves forward together. We recommend the creation of a small executive leadership function to lead and coordinate action across the sector.

Public role

Although this group is not tasked to think about museums wider public role in terms of the climate crisis, we recognise our trusted public status and consider any actions we take should be communicated transparently to the public.

Biodiversity

We must not damage biodiversity at the cost of attempts to adapt our buildings against climate change damage and recognise that enhancing biodiversity will help us look after our buildings and sites. As we build museum expertise on fighting climate change, we must include expertise on biodiversity.

Summary of actions:

- A change in legislation and planning guidance now.
- A quantification and understanding of funding needs.
- New public funds now.
- An understanding of the cost-benefits of investment.
- New specialist staff in strategic organisations.
- Central coordination of all activity through a new executive role.
- A single reporting structure.
- An end to duplication, all moving forward together.
- Everything undertaken shared with public.
- And none of this at the expense of biodiversity.

HS talked through the sections of the statement in turn – starting with a commitment about the approach the subgroup took to buildings, recognising the climate and nature emergency and the need to act. This is the prime commitment, followed by a series of actions under different headings – legislation and planning, funding, skills, best practice, working together, public role and biodiversity.

HS asked the audience to consider two different versions of core text to clarify how strong the commitment should be.

HS advised that in the first case the statement commits to giving climate change precedence over heritage when considering it within the planning system, whereas the second is to give them equal importance. Though there was some concern in the subgroup about how strong the statement should be, overall, they felt it was important to really push to show how serious museums are about this issue.

On the funding section, the second question was to help the subgroup determine how strong the language should be and how urgent the ask regarding where funds should be directed – whether all new funds should be directed to helping museums adapt and making them resilient to climate change. Again, although there were some mixed views the subgroup recommended this as a priority and museums should be seen to lead this conversation by seeking this.

HS acknowledged that another subgroup was looking at the sector skills issue but the Heritage subgroup felt that a statement needed to be made about the specific need for more specialist environmental skills for the sector.

Legislation and Planning

HS asked attendees for observations before the vote, asking people to consider the two text options relating to Legislation and Planning, and agree to placing 'mitigating the effects of climate change and heading toward net zero **above** heritage concerns' – which will mean a change to our buildings, which the sector has done before to keep people safe from fire and to give better access. HS noted buildings have changed through time, and the sector should accept that heritage will have to look different to enable adaptation. HS said the other option is for more of a balance, so the wording should be that 'the climate emergency should have **as much** consideration'.

The following points were raised by audience members:

- Biodiversity, although included should be more integral, it appears as an afterthought. The work should be 'net zero, nature positive' – and every new development should be a biodiversity net gain. Before publishing the statement, it needs some peer review to ensure consistency of language on the science.
- The need for the statement to fully reflect the situation across Wales, Northern Ireland and Scotland – as this is a UK COP but the heritage statement focuses on English legislation currently.
- A suggested text change to recognise that 'this is a step change from past practice' but recognise there are qualms which is why it's being debated.
- Suggestion to vote with comments as the choices are binary and some may be on board with more explanation or caveats.

HS responded to some of the comments to note:

- On embedding biodiversity, the subgroup will rely on expertise in the room to get this right and ensure common language.
- On representation of all nations, colleagues in Northern Ireland, Scotland and Wales have provided information on the background to their situation so the subgroup will establish how to present and include that together.
- Comments will be enabled on the vote to collect further points of discussion.

The audience was asked to vote for either statement wording A or B, and to provide comments.

Legislation and planning – do you support wording A or B?

Multiple Choice Poll  91 votes  91 participants

A - 50 votes



B - 41 votes



Responses on Slido – summary of comments from 35 responses:

- Responses were wide ranging, some felt the stronger statement could be adopted with minimal changes, others felt that too much was missing or that the binary nature of the statement pitted climate and heritage against each other, with 20% suggesting the two were not in conflict and could be compatible.
- 8% agreed with the stronger statement with a further 11% agreeing but noting that work was needed on the statement and that often a case-by-case approach would be needed. Another 5% agreed but with simple text changes including the reference to 'qualms' the sector may have.
- 8% felt the statement needed further development and clarification of who all of the actions were for, and who it is aimed at, one suggesting it needed to be more concise to appeal to boards.
- 20% mentioned the need for the language and contents to apply nationwide.
- 11% felt biodiversity should be more prominent and a further 6% mentioned the need to refer to nature-based solutions for mitigation and adaptation.
- 6% suggested that collections should be mentioned, and that museums still have an obligation to conserve them.
- Smaller numbers of responses featured a variety of points including the need to specify which buildings are captured, whether all museums or only heritage buildings, that cost often outweighs other mechanisms of decision-making especially in Local Authorities, another suggested planning wasn't a barrier.

Funding

HS asked the audience to consider the funding statement and the subtle difference between the two, noting that one recommends that **any** funding that comes from central government should prioritise making our buildings and operations carbon neutral and to protect them against the effects of climate change – the alternative is that only **any new** funding streams do this.

Audience discussion raised the following points:

- The difference is too subtle, though funding should support the objectives there are more areas of the sector that need funding.
- The statement needs to clarify whether this is about capital funding, revenue or both.
- It's unlikely that there will be new funding in the near future so it may not be possible or advisable to narrow what any new funding can do.
- The ethics statement talks about the need for thinking about this beyond short-term cycles of politics and economics, read across is needed with this statement which talks about those short-term cycles.
- 'Central Government' funding should be expanded to devolved nations.
- Recognition of what is and isn't devolved and how legislation differs is needed.
- On the need for a single reporting system, Wales has a public sector reporting system which has been in place for 4 years which can be learnt from.
- Need for museums to have Science-based Targets and for funding for to develop them.
- Need to clarify whether this is about all museums or just those in heritage buildings.
- Suggestion to separate out the things that museums can do that are in our control, such as duplication, working together and then the areas where we're calling for public funding or government support. The document should consider who is taking these actions and how we can use it to advocate and influence.

HS responded to some of the comments:

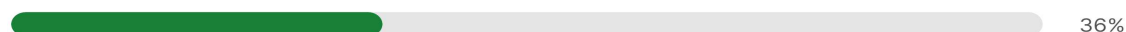
- Although there are more areas that need funding, the subgroup felt the climate crisis is more urgent than other needs. There was also a feeling any outcome will inevitably be watered down so starting with a strong message will emphasise the seriousness.
- This should apply for all museums, not just those wanting to adapt heritage.
- The suggestion to summarise actions will be taken on and form part of the overall summing up of the actions and the things we need to advocate for.

The audience were asked to vote for wording A or B relating to funding and provide comments:

Funding - do you support wording A or B?

Multiple Choice Poll  81 votes  81 participants

A - 29 votes



B - 52 votes



Responses on Slido – summary of comments from 40 responses:

- 37% responded that the request should apply to new capital funds – to be clarified in the wording – making clear which funding and organisations this targets, respondents also noted devolved funds should be included.

- 27% felt that there were more areas that needed funding beyond this work. 7% suggested biodiversity should be better included and 5% suggested money for public engagement was needed.
- 12% noted wording changes beyond clarifying which funding or organisation/s the statement targets, asking carbon neutral to be changed to net zero. Further 5% felt the statement was unclear overall.
- 5% couldn't agree with the statement, with others agreeing the urgency but that not all funds should be targeted in this way. Some felt an option was needed to endorse the principle if not the specific text.
- 5% suggested that all funding should have a 'climate lens', others suggesting funding needs specifically for repair and basic maintenance which should also include adaptations and mitigation, some mentioned the need for resilience funding, and others skills and capacity building.

HS summed up that the conversation would be recorded and summarised in order to discuss where to take this next and how to work with colleagues on next steps.

Action 2

[Heritage subgroup] *Discuss feedback on statement from COP.*

Action 3

[Heritage subgroup] *Take forward actions in two categories:*

1. Actions for museums:

- *A quantification and understanding of funding needs.*
- *An understanding of the cost-benefits of investment.*
- *An end to duplication, all moving forward together.*
- *Everything undertaken shared with public.*
- *And none of this at the expense of biodiversity.*

2. Collective calls for funding and legislation change:

- *A change in legislation and planning guidance now.*
- *New public funds now.*
- *New specialist staff in strategic organisations.*
- *Central coordination of all activity through a new executive role.*
- *A single reporting structure*

Session 4: Decarbonisation Case Studies

Speakers: Andrew Wylie, Partner and Laia Carpena, Associate, Buro Happold

Alongside advocating for changes to planning and for more funding to enable the museum sector to adapt buildings and processes appropriately, there is also the need to understand the costs and benefits of making changes.

For the 4th session, Andrew Wylie (AW) and Laia Carpena from Engineering Consultancy firm Buro Happold presented a series of case studies prepared pro bono for NMDC looking at how to decarbonise museum buildings and estates. Taking 6 sample museums of different types and ages, the study looked at a range of measures across three categories, 'quick wins', 'maintenance', and 'capital projects' (or low, medium, high difficulty/cost) to reduce emissions.

Buro Happold made a commitment to share knowledge and have committed to Science Based Targets. They were commissioned to develop the Theatre Green Book – which was split into 3 areas: Sustainable Productions, Sustainable Buildings and Sustainable Operations – this has since gained traction from the industry and has been translated into 8 languages. The nations theatres are all committing to produce works to the baseline standards.

Following this work, Buro Happold were approached to translate the Green Book to work for other art forms, so the Sustainable Buildings chapter was adapted into the Arts Green Book, for people who are time poor but with detailed guidance and principles set out for updating buildings. It follows principles of 'Lean, Green, Mean' looking at the fabrics, systems and then technology to maximise investment and move through pathways to decarbonisation. Within the museums case studies Buro Happold similarly took the approach of looking at quick wins, maintenance and then capital investment which means that progress can be made straight away.

In answer to the question about what the cost of decarbonisation is for museums, the starting point has been to look at some case studies which can then be extrapolated by looking at publicly held data.

Display Energy Certificates (DEC)

Buro Happold conducted a sector analysis using data from Display Energy Certificates which show the performance of publicly occupied buildings using a scale A-G using measured metered energy use. The raw data was extracted from publicly available records then disaggregated and filtered to show only museum buildings.

DEC's are mandatory for public buildings over 250sqm, and for buildings over 1,000sqm they must be renewed annually. This has been going since 2008 so there is a large pool of data.

Buro Happold extracted data for 2022 representing 251 museum sites from the 'cultural activity' set of the data (of which 70 are NMDC member's buildings or sites).

2022 Scenario– Key Facts

Operational Rating and CO₂ Emissions



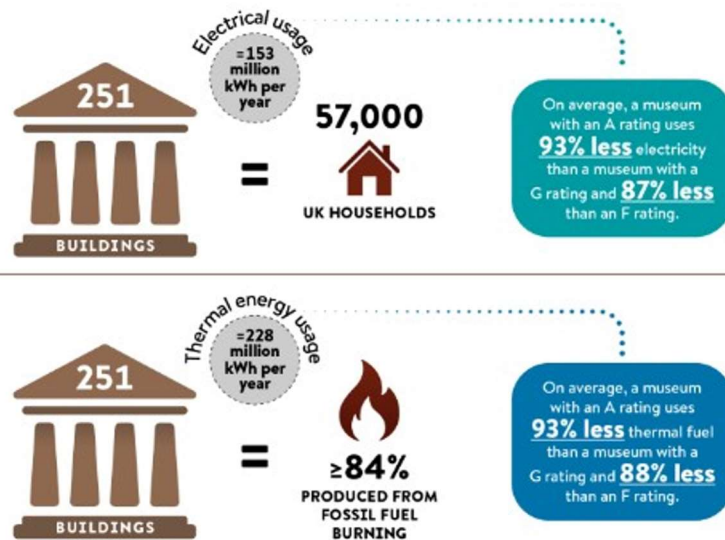
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The data showed that 40% of museum buildings have an average or below average operational rating, and that those buildings emit some 129,000 tonnes of CO₂ a year, equivalent to 21,500 UK households (6 tonnes a year each).

2022 Scenario– Key Facts

Energy Usage



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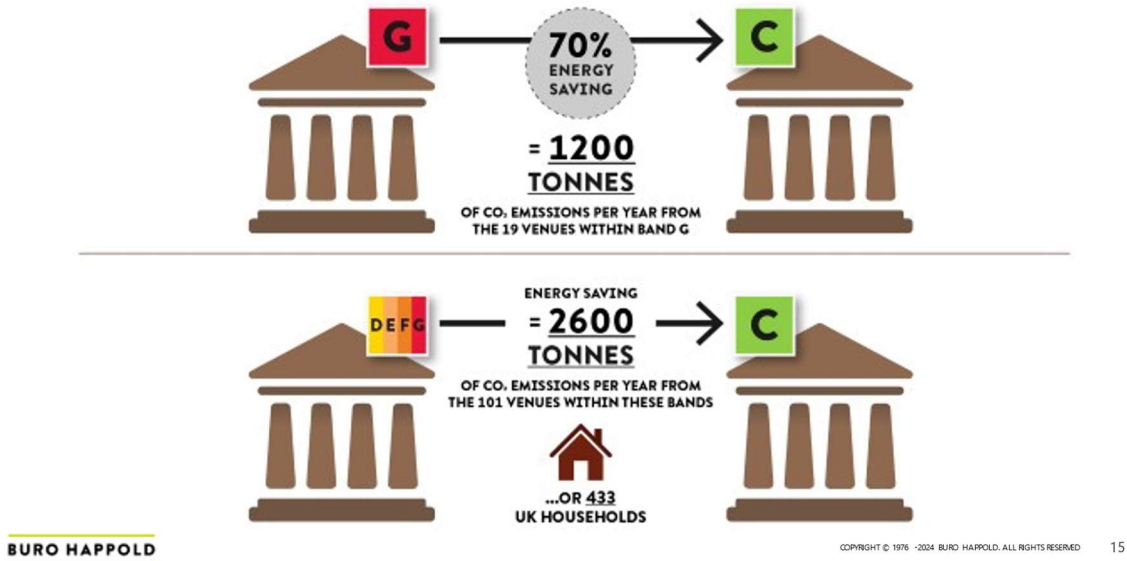
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Looking at energy usage by Electricity and Thermal usage, electrical usage was equivalent to 57,000 UK households and thermal use amounted to 228 million kWh per year, 84% of which comes from fossil fuels.

A building with an A rating uses 93% less electricity than a museum with a G rating.

2022 Scenario– Key Facts

Potential Savings



Using the DEC to look at potential CO₂ savings, the study showed by moving only the 19 museums in the bottom band G to band C would save 1,200 tonnes of CO₂, equivalent to a 70% energy saving. More impressively, if all museum venues in the sample scoring D or below were to improve their energy rating to a C, they would save 2,600 tonnes of CO₂. This is equivalent to 433 households just in savings from those bands.

There is potential for all buildings to make improvements, but the lower bands have further to go, for every move up a band there is a potential saving of around 10% per band.

Museum Case Studies

AW returned to the case studies, and noted in context that a recent Indigo report which polled over 20k cultural visitors showed that 70% believe that cultural venues have a responsibility to address the planetary emergency.

To develop the case studies, Buro Happold worked with six museums looking at particular buildings where engineers spent time at each looking at the opportunity for carbon savings.

The six case studies considered 3 categories of opportunities, as well as the costs of making those reductions.

The ideas for improvements were not an exhaustive list but common themes that occurred in at least 4 of the venues surveyed.

Quick Wins



Improve timing schedules and avoid plant operating outside of required periods

0.2-0.4%



Improve draught proofing

0.2-2.3%



Review temp/humidity records and investigate areas outside of target range

0.7%

Maintenance



Air Handling Units heat recovery

0.4-3%



Switching halogen lights to LED

0.3-5%

Installing lighting sensors/controls

0.1-2.8%



Installing heating controls

0.1-2.0%

Installing electric sub metering

0.2-0.8%



Improve airtightness





4.5%



Improving and repairing insulation

2-4%

Capital project

	Additional insulation	1.3-5.0%
	Window repairs/secondary glazing	2.7-6.8%
	Move to Air Source Heat Pumps	25.9-56%
	Introduce Photo Voltaic (PV) to available roofs	0.2-0.9%

Buro Happold identified that taking a broad-brush analysis, there is an opportunity to move one band in energy performance by taking up just the quick wins and around 50% of the maintenance projects. Implementation of all measures could provide the opportunity to move up at least three bands.

The case studies and improvement measures are still to be costed, so the presentation represented only the first stage of the study. Buro Happold are working with Flint + Partners to establish the costs of the different options to give the sector a better idea of the scale of the challenge and costs associated.

The next step is to complete and publish the case studies, Buro Happold want to provide some more detailed analysis and correlation between the DEC and how the museums can improve to give a broad picture of savings and carbon impact. A museums-specific volume of the Arts Green Book could be of value as it has been well taken up by the theatre industry. The carbon savings at the moment do not look at collections storage and they're acutely aware of the significant impact this has on carbon emissions.

Action 4

[Buro Happold] *Produce a full report with completed decarbonisation case studies and costings, to include recommendations for further discussion.*

Session 5: Funders

Speaker: Sufina Ahmed, Director, John Ellerman Foundation

Sufina Ahmed (SA) began the afternoon session, giving apologies for Chair of the Funders subgroup Caroline Mason CEO of the Esmée Fairbairn Foundation who had to send apologies.

SA provided a brief introduction to the work of the Funders subgroup thanking NMDC for including funders at an early stage in the process – indicating those members who attended and highlighting the representative mix of independent and public funders.

SA commented on how useful it was for funders to be part of the process – welcoming the way in which the various subgroups have been so proactive, progressive and ambitious in considering the types of solutions that could be designed in response to the climate crisis.

SA commented that hearing from the sector directly in this way makes it easier to consider the role funders have and is preferable to all working on things individually, as all like to have their unique approaches but working collectively and collaboratively with colleagues enables them to bring individual strengths to work more effectively together in the way that has been demonstrated by the COP methodology that everyone has been working through.

Throughout the various funders meetings that have taken place, discussion had centred around the role that funders can play and their perspective on what has been proposed by the various subgroups which they've been able to see in draft form.

In terms of perspective the funders did not want to be too myopic in focus and so welcomed the breadth and depth covered by the subgroups. Funders also had conversations about different topics including land management for biodiversity gains and the value of thinking about nature and climate together, discussions also looked at people both in terms of volunteers, staff and the audiences museums serve. Collections and curation were also a key point of discussion in the subgroup.

SA highlighted that fundamentally whatever funders decide to do has to be led by the sector, the solutions must be designed and curated by museums. The Funders subgroup set two questions over the break for participants to respond to. The subgroup would then use the feedback from the two questions, as well as the discussions over the day, to form the basis of the agenda for the next Funders subgroup meeting post-COP. They were looking forward to digesting all of the insights shared in the spirit of transparency, and the high trust approach everyone was sharing on the day was very much appreciated.

SA ended by thanking the subgroups for their work and to all who have participated. Thanks were made also to Nick and NMDC for ensuring the funders can contribute.

Funders' questions

1. How might funders better support and encourage environmentally responsible museums? – Slido summary from 20 responses:

- 50% of responses suggested that addressing environmental improvements should be included in funding requirements, either via minimum requirements such as asking all applications to have some element of climate action or planning, or a hierarchy of expectations – some of the responses also suggested challenging those that don't.
- 15% asked that funding be directed to programmes or projects that benefit and work with communities on climate awareness and adaptation.
- 15% asked for dedicated funds for decarbonisation and adaptation, and an additional 5% suggested funding should enable planning for capital development.
- 10% felt rewards and incentives would be useful.

- Other suggestions included the need to think more about a sustainable future rather than prioritising short-term goals, to give more flexibility on the use of money and suggesting the need for funders to better understand good approaches. Another response suggested moving from a reporting approach to using tools and insight.

2. What are the biggest gaps in current funding and barriers to action for museums on environmental sustainability and climate issues across areas including buildings, operations and public engagement? – Slido summary from 21 responses:

- 38% of responses referenced the need for knowledge, skills and capacity in the sector – noting this either as a barrier to progress or as an acute funding need. A further 2% made specific reference to the need for Carbon Literacy Training and funding for it, and funding for case studies, resources and coordination of best practice.
- 19% mentioned the need for capital investment and maintenance, with a further 9% noting old buildings and the difficulty in adapting them as a barrier. Another response noted that criteria that specifies the need for audience outcomes from infrastructure projects as a barrier. The need for seed-funding to develop projects to a stage ready to receive capital funding was also mentioned.
- 13% highlighted the need for more specific climate funding for resilience and adaptation work, or for moving to alternative heat sources.
- 14% noted the lack of available public funds and the limited size of funds currently available given the size of the challenge.
- 23% noted that funding is needed for developing decarbonisation plans (especially in some cases for non-national museums where there is less capacity) and for advice or specialist posts, with a further 8% noting that funding was needed for the on-going basics such as heating controls and insulation.
- Only a small number of responses mentioned need for funding for public engagement, and one response noted the need to prioritise adaptation over public facing investment.

Action 5

[Funders subgroup] *Meet again to discuss feedback from COP and agree potential areas for further discussion/action.*

Session 6: Scope 3 Challenges

Speakers:

Chair: Maggie Appleton, Chief Executive Officer, RAF Museum
Rachel Davies, Director of Operations, Ashmolean Museum
Adrian Fitzpatrick, Sustainability Manager, National Museums Northern Ireland
Melissa Painter, Head of Sustainability, V&A
Alex Rock, Director of Commercial and Operations, Derby Museums Trust

Maggie Appleton (MA) opened the session by introducing the four subgroup members joining her on stage and thanking the other members Paul Crofts from Black Country Living Museum and Lisa Wilkinson from Beamish, who were also attending (but not speaking) and Ruth Gill from National Museums Scotland who was absent on the day.

MA noted the scale of the topic – referencing the slide (below) – and the challenge of measuring and reducing Scope 3 emissions. The subgroup had taken a pragmatic approach, focussing on where the greatest impact could be made. They were also conscious of ensuring any proposed actions were manageable and scalable for museums of all sizes, and of trying to ensure the complexity of the issue does not discourage action.

Definition of Scope 3:

Upstream scope 3 emissions:

1. Purchased goods and services
2. Capital goods
3. Fuel- and energy-related activities (not included in scope 1 or scope 2)
4. Upstream transportation and distribution
5. Waste generated in operations
6. Business travel
7. Employee commuting
8. Upstream leased assets

Downstream scope 3 emissions:

9. Downstream transportation and distribution
10. Processing of sold products
11. Use of sold products
12. End-of-life treatment of sold products
13. Downstream leased assets
14. Franchises
15. Investments

From the Greenhouse Gas Protocol's Corporate Value Chain (Scope 3) Standard

Guidance and resources for museums

A first key observation by the subgroup was the large amount of guidance and toolkits already available, which presents a challenge for museums to navigate and to find the most relevant advice and resources for their organisation. Different guidance is needed for larger and smaller museums, those managing woodlands and parks, in urban or rural settings, and depending on what type of buildings they occupy.

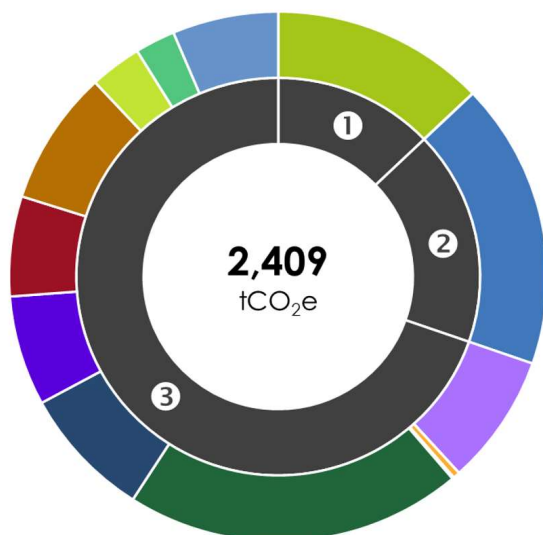
Recommendation:

The subgroup recommended that NMDC works with other sector bodies to develop signposting to existing resources for museums, including clear guidance on the most relevant resources for different types of organisations.

Rachel Davies (RD) then noted priority areas for action agreed by the subgroup, which primarily focussed on purchasing and travel, as these make up the majority of Scope 3 emissions for many museums.

Purchasing

RD referenced the work she leads at the Ashmolean – noting that unlike many museums they are lucky to have a small budget for this work – where they have been able to work with sustainability consultants to establish their carbon footprint and baseline CO2 emissions. This revealed that Scope 3 made up 70% of total emissions, with 60% of those coming from purchases.



SCOPE	CATEGORY	tCO ₂ e	%	
1	Fuels	311	13%	
	Fleet	<1	<1%	
2	Electricity	422	17%	
	T&D and WTT	192	8%	
	Upstream Fleet	<1	<1%	
	Waste	1	<1%	
	Water	3	<1%	
3	Purchases	490	20%	
	Retail	194	8%	
	Food & Beverage	162	7%	
	Investments	147	6%	
	Employee Commuting	198	8%	
	Home Working	76	3%	
	Business Travel	58	2%	
	Object Travel	154	6%	
	Total		2,409	100%

Ashmolean carbon baseline and decarbonisation pathway

The Ashmolean then set targets for reducing baseline emissions, created in line with the University of Oxford of which the museum is part, as well as guidelines from the Gallery Climate Coalition and Science Based Targets. Working subgroups have been set up to target action on different emissions streams. A desktop review was undertaken to assess which suppliers the museum was working with and their environmental credentials, which demonstrated that 50% of the museum's purchasing emissions are based on relationships with 45 suppliers. The Ashmolean's commercial team is now engaging with those suppliers and considering practical issues such as locality and frequency of ordering to try and reduce the environmental impact of how the museum spends its money.

Alex Rock (AR) responded from his experience at Derby Museums Trust, where there is not the same level of resource and capacity available to create detailed analytics and baseline data. However the Trust has focussed on sourcing locally across all areas of operations including cafes and shops, which is something all museums can do. Sourcing locally is a key value for the Trust, celebrating the work of local makers and producers as well as supporting the local economy and forming valuable relationships with local organisations and partners. There is a time and resource cost involved, and careful planning is necessary, but it can be a really important and easy way of making a difference not just to carbon emissions but to the local economy and community.

RD made reference to the [Act Green 2023](#) report which noted that cultural audiences expect organisations to be making progress with reducing their emissions.

Training

RD noted that staff training is also a key issue. At the Ashmolean they have been training all staff to engage in this challenge and particularly budget-holders, who can make real impact. The Ashmolean has worked with Museum Development MD to give 64 members of the team Carbon Literacy Training. This has been really powerful and the museum now has a team of sustainability champions who are really keen to take action, including by using their budgets – so whether it's what to sell in the shop or considering the menus in the café, staff can have informed discussions

and make a difference. AR agreed the Roots and Branches programme is really useful as it's based on Carbon Literacy Trust resources and is sector specific; Derby Museums Trust are rolling out training to staff in all areas as it has an impact across the whole organisation.

Sustainability plans

MA reported that the subgroup had discussed the importance of all museums having a sustainability plan, and that these need to be appropriate to the size and scale of the organisation. The subgroup wanted to ask the attendees to vote on some questions around this to inform further thinking, including how larger museums can support the wider sector:

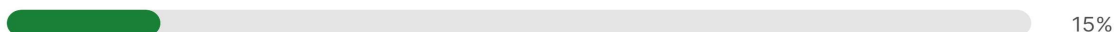
Does your organisation have a sustainability plan?

Multiple Choice Poll 82 votes 82 participants

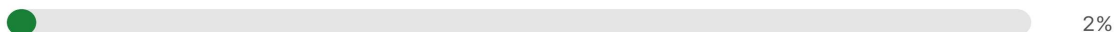
Yes - 61 votes



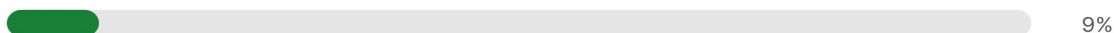
No - 12 votes



Don't know - 2 votes



N/A - 7 votes



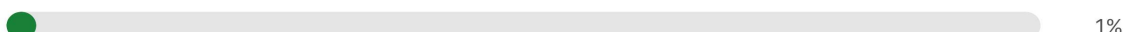
Is it reasonable to ask all museums to commit to having a sustainability plan?

Multiple Choice Poll 83 votes 83 participants

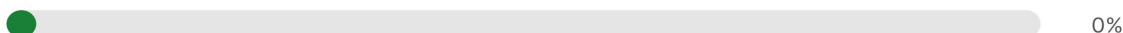
Yes - 82 votes



No - 1 vote



Don't know - 0 votes



What are your biggest scope 3 challenges? - Slido summary from 58 responses

- 24% mentioned visitor travel – both whether to and how to measure it, and how to influence this; 9% mentioned transport or geography more generally for operations such as staff and object travel.
- 12% noted purchasing as the largest challenge, a further 7% referenced the need to understand local supply chains and 8% noted that having control over purchasing was the biggest issue – for example where the museum is part of a larger organisation such as university or local authority. So a combined total of 27% overall referred to some element of procurement as the biggest challenge.
- The next largest set of challenges comes from data measurement and reporting – with 10% highlighting data as the largest challenge, a further 8% referencing measurement and the need for standards, and 3% referencing the difficulty of obtaining a baseline.

- 10% spoke about staff learning, expertise or internal knowledge, 7% noted the availability of resource to make, investigate and implement necessary changes as the major barrier, and 5% commented on the need for and difficulty of embedding organisational change.
- Over 8% suggested cost is the biggest issue, whether that be the cost of moving to new or local suppliers, the cost in terms of resources or the cost of alternative, more sustainable modes of transport.
- Other issues mentioned less frequently included waste, the storage of collections, digital storage, endowments and investing.

Business travel

Adrian Fitzpatrick (AF) outlined challenges at National Museums NI on measuring business travel. He quoted from a consultancy report: 'There is no specific criteria for SMEs on how and what they should include but this approach includes providing National Museums NI with flexibility to choose what Scope 3 emissions they focus on at a pace that is ambitious yet achievable and has reasonable levels of influence'. There is a need for behavioural change and people being encouraged to consider alternative travel means. AF noted that he had travelled to UK Museum COP by overnight ferry and train, meaning lower carbon emissions but a longer and more arduous journey than flying – the additional time required for sustainable travel is a challenge. The nature of National Museums NI's dispersed sites means that staff travel is inevitable, and there are multiple considerations (time, cost, ability to work while travelling) in choosing between car and rail journeys.

Melissa Painter (MP) agreed that this is also a challenging issue for the V&A. When baseline Scope 3 emissions were assessed, staff travel was about a third of all travel, behind object and visitor travel – however it is also something that the museum can work to reduce. The V&A has a sustainable travel policy which considers multiple factors including health and well-being of colleagues, but sustainability is at the core. The policy is for a 'travel hierarchy' which involves understanding whether travel is really necessary and considering alternatives e.g. can a meeting be attended virtually, or is there a central location to minimise travel for all delegates – and if travel is really needed, then what are the lowest carbon forms. The policy includes not flying domestically and an expectation of taking the Eurostar rather than flying to Europe whenever possible. One of the key challenges is compliance.

Capturing and measuring data around Scope 3 was another issue, and probably the biggest challenge is ensuring the accuracy of data and understanding what it means. A spend-based approach is useful to give rough estimates of carbon but can be difficult to translate into meaningful action and to set targets for reduction – e.g. what does a 30% carbon reduction mean for the number of flights taken.

MP also noted the need for 'nudges' at the point of interaction in order to affect behaviour change, for example when staff are making a choice about flights, who or what is supplying the information? There are tools available on travel platform providers to help staff understand the carbon impacts of their decisions. So a key challenge is understanding how we can motivate behaviour change and not just focussing on carbon calculations post-travel. MP added that the policy of no domestic flights does come at a cost, and that no decision around sustainability has an easy answer – there is a time implication and becoming greener isn't always cheaper.

MA then asked audience members to vote on a series of questions around business travel:

Would you commit to taking no domestic flights?

Multiple Choice Poll  82 votes  82 participants

Yes - 72 votes



No - 5 votes



Don't know - 5 votes



N/A - 0 votes



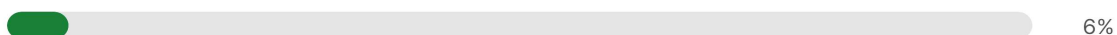
Would you commit to measuring and reducing your business travel?

Multiple Choice Poll  83 votes  83 participants

Yes - 74 votes



No - 5 votes



Don't know - 4 votes



If not, what are the barriers? – Slido summary from 24 responses:

- Time, transport infrastructure and cost seen as by far the biggest barriers to reducing business travel, with 25%, 20% and 16% referencing these respectively.
- 25% also noted that the nature of sites, whether dispersed museum sites or networks means that travel is necessary.
- 12% suggested that travel is necessary for the organisational mission, and additional 12% suggested that travel is either needed for an efficient organisation, as part of the model or seen as a perk.
- 8% noted compliance and translating targets into action as being where the issues lie.

Visitor travel

MA then introduced the 'even thornier issue' of visitor travel as the final topic on Scope 3. The subgroup had a lot of discussion on whether to recommend that all museums should be measuring visitor travel – with a key argument being that it can make up to 80% of total emissions, but because of the plethora of challenges faced in doing this, some organisations, including the Gallery Climate Coalition recommend that not all organisations need to do this.

AF reported that at National Museums NI they do measure visitor travel and have been since calculating their baseline emissions in 2018/19. One major issue is the museum sites outside Belfast which are not readily available by public transport, so many visitors come by car. National Museums NI therefore think it is important to measure visitor travel because they can have an influence over how visitors travel, e.g. by putting information about public transport options on the website. For the Ulster Transport Museum site there are opportunities to speak to the rail provider to encourage visitors to travel by train, and green ticketing options are currently being considered. The museum is looking

to increase visitor numbers by 300% while maintaining the same amount of car parking which is a challenge, but options to manage numbers include using booking systems and encouraging people to visit at certain times.

MP responded that at the V&A they have baselines and measured visitor travel and are pulling together a multi-site travel plan. Visitor travel is not something that they will look to off-set, particularly as visitors to South Kensington/London are often visiting a number of the cultural institutions and businesses. MP stressed that working with key partners is vital and understanding how your visitors get to your institution is really important in order to enable data-led conversations. In working with local travel planning authorities, whether that is the local authority, county council or regional government, it is also important to understand what their plans and targets are and how you can influence those, as well as what funding might be available e.g. for electric car charging points or accessible bike parking.

MA added that while it is important to understand and measure visitor travel if you can, the subgroup is not recommending that all museums should be doing this. They also had interesting conversations about museums' responsibility to encourage visitors to think about how they travel and positively influence those decisions.

MP noted that the right kind of messaging is key, as is working with partners – depending on locality there could be other maps or wayfinding, e.g. to advise visitors when a short walk can replace a public transport journey. A case-by-case approach is needed for promotion of both public transport and active travel. AF agreed that linking up with public transport or other local authorities on this is key.

MA then asked the audience to vote and share thoughts on measuring visitor travel within Scope 3 emissions, including whether funders should be making this a requirement or instead asking museums to focus on action to positively influence audience behaviour:

Do you agree that there should not be a sector wide expectation on museums to measure visitor travel a part of scope 3? (as per the Gallery Climate Coalition's advice)

Multiple Choice Poll 82 votes 82 participants

Yes - 40 votes



No - 18 votes



Don't know - 24 votes



Should funders be asking museums to report on visitor travel within scope 3 emissions, or focus on museums reporting the actions they are taking to influence positive visitor behaviour?

Multiple Choice Poll 82 votes 82 participants

Yes - report on visitor travel - 11 votes



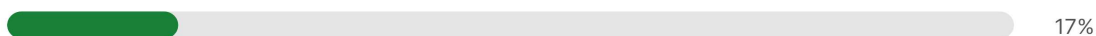
No - focus on actions to influence visitor behaviour - 49 votes



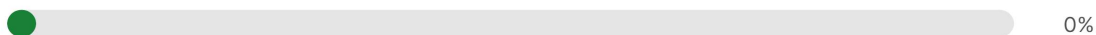
Neither - 1 vote



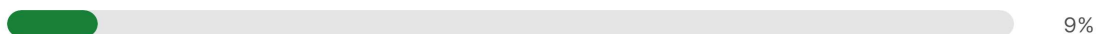
Both - 14 votes



Other - 0 votes



Don't know - 7 votes



MA noted the inconclusive results of the vote, which chimes with the subgroup's thinking that recommending all museums should measure visitor travel is not necessarily appropriate.

MA noted that the issue of off-setting was touched on by the subgroup – as a large and difficult issue there wasn't time to pick it up today but MA wanted to note it as something that needs further consideration. MP commented that it is important to remember that hitting net zero will require some off-setting. In a previous role at a local authority MP was involved in a borough-wide net zero commitment which included off-setting for all travel within the borough – so it is important to understand who is going to off-set. It needs to be a museum-by-museum decision. AF agreed that measuring and understanding emissions is the most important step; National Museums NI's baseline report recommends that off-setting should be a measure of last resort.

MA asked for any final comments from colleagues:

AR noted that the subgroup had quite a debate on visitor travel, and his view that visitors should be encouraged to visit and museums should not have to assume responsibility for visitor travel. Museums can work on a place-based approach with local partners to collectively influence change particularly around public transport infrastructure and accessible travel. RD noted the importance of creating a dialogue with the public too, and that there are multiple organisations with whom museums can partner to help influence visitor travel.

RD commented that we are all on a journey, nobody has all the answers and we need to work together to find collective solutions and learn from each other. Training in order to really engage all staff with this challenge is also vital.

Action Session 6

[Scope 3 subgroup] Continue to meet to work on further ideas for potential action and to share learning and best practice.

Session 7: Workforce and Skills

Speakers:

Chair: Andrew Mackay, Director, Tullie

Tilly Blyth, Head of Museum Studies, University of Leicester

Alison Criddle, MDO Environmental Responsibility, Museum Development North-West

Sara Kassam, Climate Champion Trustee, Museums Association, Sustainability Advisor for UK Sport

Angela Schlegel, Learning & Development Manager, Natural History Museum

Andrew Mackay (AM) opened the session by noting that much of the subgroup's presentation chimed with earlier sessions. A common theme of the subgroup's discussions was the need for deep, effective and urgent change across the sector, in terms of training and skills but also attitudinal change. The subgroup also talked about the need for signposting to resources, as already mentioned several times – there is a huge amount of information available but without clear guidance it can result in a lack of confidence in taking action. And similarly to the Scope 3 subgroup, they were very conscious of the need for scalability of any proposed actions and the lack of available resource at many museums.

AM outlined some of the actions being undertaken at his own organisation, Tullie House Museum and Art Gallery in Carlisle, where they see their role as having three strands. Firstly, changing what they do within the organisation, reducing carbon, and training and empowering the workforce to make a significant difference that is good for both the planet and the bank balance. Tullie also has an important leadership role, representing the Cumbrian Museum Consortium and working across the county not just with museums but with the wider arts and culture sector. And thirdly and perhaps most importantly is the public influence that museums can have by communicating messages about sustainability – Tullie was very pleased to win a recent Kids in Museums award for their 'Once Upon a Planet' project, which used the museum's collections to engage local communities and particularly young people with issues around climate change.

Carbon Literacy Training

Alison Criddle (AC) opened the discussion by asking for a show of hands on who was aware of Carbon Literacy Training before today, who as individuals was carbon literate, and whose organisations were currently undertaking Carbon Literacy Training? The vast majority of attendees confirmed yes to all questions.

AC noted that many attendees had undertaken Carbon Literacy Training with Museum Development (MD) and partners as part of the ACE/NLHF-funded Roots and Branches project, which had far outgrown its original remit:

- Over 1,000 people from 325 different organisations had now undertaken the training, with 125 of those doing additional 'train the trainer' courses using the Carbon Literacy Forum's toolkit to roll out training across their own organisations.
- AC noted there has been a real shift over the last 18 months in awareness and conversations across the sector on this issue, which had been really encouraging. Many of the comments made during UK Museum COP echoed issues raised in the training delivered by MD, which demonstrated the importance of connection and collaboration between colleagues. Roots and Branches training had been undertaken by a wide range of staff at all levels from volunteers to CEOs.
- Historic England have adapted the Roots and Branches toolkit into a course for heritage organisations, and colleagues in Wales are working on a Welsh language version. MD also worked with Art Fund to deliver Carbon Literacy Training across the sector as part of the Wild Escape project. MD's new Seeds for Action programme will maintain networks and create space for further connections and co-working in thematic areas.

AC highlighted questions about the approach to Carbon Literacy Training across the sector, including whether there should be a central funding pot and how it links to other types of workforce learning and development. AC noted that MD are committed to keeping the training and resources

live and up to date, and that as well as MD colleagues continuing to deliver online training, a small bank of freelancers is being built up in response to demand from the sector. How can this best be supported going forward? AM then listed recommendations from the workforce subgroup on Carbon Literacy Training.

Recommendations:

- **All NMDC members and all COP attendees should undertake Carbon Literacy Training.**
- **Within the next 12 months, all UK museums should ensure Carbon Literacy Training is undertaken by:**
 - **two board members**
 - **50% of senior leadership teams**
 - **and if possible 50% of the whole workforce.**
- **There should be more funding for Carbon Literacy Training to enable it to be rolled out across the whole UK museum sector.**

Formal training

Tilly Blythe (TB) introduced the next part of the session focussing on the future workforce by noting that the next generation desperately want to make change, so there is a real appetite for this work. The Workforce subgroup identified two key areas around formal learning and entry routes into the sector – postgraduate training and apprenticeships – and agreed that sustainability needs to become embedded and play a much bigger part in what is being offered to students in both areas.

Postgraduate training: TB noted that it is quite surprising how little current MA and MSc courses in museum/heritage/art gallery studies cover sustainability or environmental issues. Where it is included, it tends to be due to the enthusiasm of individual academics and sometimes only consists of a single session. The current museum studies MA at the University of Leicester includes a module on the green museum where students spend time thinking about the current crises in the natural environment, the reduction in biodiversity and the impact of climate change and the role museums can play in mitigating that impending disaster – although it is an optional module and only three weeks long. However the Leicester course is one of very few to include any dedicated focus on sustainability so this clearly needed to be expanded on, particularly as there is real demand from students.

The University of Leicester consulted museum and heritage sector leaders earlier this year on what they wanted from museum studies providers in terms of skills and training, what are the needs of the sector and current barriers to action? – and a clear message came back of the need for more training around climate change and the skills to support work in this area. TB was therefore pleased to say that Leicester will be offering a new MA on museum studies and environmental sustainability. The proposed programme is currently going through the university's approvals process but they hope to launch it in September 2024. Students will undertake four modules of the usual museum studies course but the final section will focus purely on environmental sustainability with a five month collaborative project working with the sector to enable change (rather than the usual format of dissertation and 8 week work placement). The new model will enable training that both supports cultural organisations in tackling the impacts of climate change through their practice as well as giving students a chance to learn through the real life problems that all museums are experiencing.

Apprenticeships: TB noted the importance of apprenticeships in offering an alternative route to postgraduate study and as a way to bring a greater diversity of different people into the sector. Apprenticeship students are funded through the Apprenticeship Levy – any organisation with over 300 members of staff has to pay into the levy but any organisation including small museums can utilise it. However, again there is currently not much on sustainability or climate change included within apprenticeship programmes.

There are various apprenticeships for the sector including museums and galleries technician, heritage engineering technician, cultural learning and participation officer, curator, cultural heritage conservator, archivist and records manager – and only the cultural heritage conservator apprenticeship currently include something on environmental conditions. Any apprenticeship

includes what is called 'knowledge, skills and behaviours' (KSBs) which are clearly defined by the relevant sector – so for example the curator apprenticeship was developed with input from 24 advisors from organisations like IWM, BFI, Tate, V&A and English Heritage who helped define the standard. The Workforce subgroup therefore felt that the sector needs to come together to influence those who are developing apprenticeships and ensure that environmental sustainability is a defined part of the standards.

Recommendation:

- **NMDC and sector partners to collectively lobby postgraduate training and apprenticeship providers for environmental and sustainability issues to be included in current training offers.**

Mentoring

AM noted that the Workforce subgroup discussed mentoring as a way to build a community of colleagues with knowledge and expertise, creating a support mechanism to give people confidence and avoid being overwhelmed by the amount of information available and fear of doing the wrong thing.

The subgroup therefore recommends the development of a mentoring scheme to provide support and sharing of knowledge and expertise across the whole museum ecology. AM noted this might be more appropriately led by other sector bodies such as the Association of Independent Museums as part of their Hallmarks Scheme or the Museums Association who are already providing resources for the museum workforce.

Recommendation:

- **Development of a cross-sector mentoring scheme to share knowledge and expertise across the museum sector.**

Recruitment

AM introduced the next proposal on how sustainability should be incorporated into recruitment, where there is an opportunity to influence new employees and embed change across organisations. There is a need to change the language used, and in order to become embedded throughout the whole recruitment process this needs to be a 'golden thread' through advertisements for vacancies, job descriptions and person specifications, as well as in contracts with freelancers and consultants.

Recommendation:

- **All museums should adapt their recruitment policies and processes to incorporate sustainable behaviours and actions.**

Learning and development

Angela Schlegel (AS) stated that the subgroup's proposed recommendation is that sustainability is included and embedded into Learning and Development (L&D) programmes and AS noted that at the Natural History Museum (NHM) their mission is to create advocates for the planet – everyone in this room is already an advocate, but what does that mean?

At the NHM their expertise in taxonomy, systematics and mineralogy drives research in areas such as securing the future of food, health and natural materials. NHM thinks at every turn about how sustainability can be part of all decision-making and ensuring the organisation operates throughout its strategy and policies in a way that is kind to the environment. Embedding sustainability into L&D is part of NHM's journey in developing staff awareness and providing training on the benefits of energy efficiency especially in key areas of the business. This includes experts demonstrating what they are doing through updates that everyone can understand. There is still more to do including around inductions and thinking about what sustainability means for everyone including managers. Some areas benefit from more specialised training such as timber procurement. There is a need to ensure

all colleagues can see the connectedness of what the museum is doing and what they can do as an individual employee.

Sara Kassam (SK), now at UK Sport and formerly head of sustainability at the V&A, noted that she has worked on sustainable L&D in sport, museums, higher education and local authorities, and there is lots of commonality. The key is harnessing the enthusiasm, creativity and expertise of employees and volunteers to embed sustainable practice across the organisation, supporting and empowering people to develop their interests and understanding in various aspects of sustainability. It is not just about Carbon Literacy as there are lots of other areas within sustainability and regenerative practice that can connect to people in different ways depending on their job roles and their passions.

The V&A L&D team created an outcomes-based learning programme, with an articulated framework so colleagues knew what they were going to learn. This included Carbon Literacy as well as other subjects, with some sessions run for particular departments, some open access and some organised on request. Between January 2021 and February 2022 via in-person and online sessions 822 hours of sustainability-focussed learning took place. The V&A is a big museum so this includes 1,000 people, but it was really encouraging to see the commitment and interest from staff across the organisation. The V&A programme looked at things like behavioural change theory, achieving the UN Sustainable Development Goals, net zero Science-Based Targets and circular economies. One really popular session for curators was on intersectional sustainability, while others included tackling the biodiversity crisis, looking at building performance with the estates team, and sustainable materials training for project and exhibition design teams. There are so many rich and exciting areas on which training can be provided.

SK noted that in her experience people want to know what they can do next, because they are often really passionate and want to feel confident they have the right knowledge to take action. Everyone is an expert in their own area, there just needs to be a 'sustainability overlay' to ensure staff are able to ask the right questions and know where to go for help – there are so many different professions within museums and so many different ways colleagues can take action on sustainability. We therefore have to create an open space for discussion via training programmes and help people come up with joint solutions.

SK also observed that people love coming together and having the opportunity to talk about what they do and don't know and to collectively discuss what to do next. Connections across departments are really valuable – people inevitably work in silos and this is a great way to get them to work together on issues they care about, to find commonalities and complement work being done in other parts of the organisation. In the same way that currently all staff undertake health and safety training in museums, we need to make sure everyone has tailored and stimulating sustainability-focussed training.

AS continued that while there will be some issues relevant to each workplace, a cross-sector training programme could have real benefits, enabling people to see what has been done at other organisations and to share experience, training and resources across the sector. The subgroup therefore proposes that NMDC should collaborate with colleagues across the sector on a new sustainability-focussed training programme from March 2024. Action and impact should then be assessed in a year's time. A proposal needs to be developed on what this would entail and potential costs, including an assessment of what museums are already doing that could be shared more widely and what kind of subjects people are interested in.

SK noted that the time for sharing best practice is over – we are all here today because we need collective solutions and there is an urgent need for action. Sustainability should not be an add-on, it is a core competency.

Recommendations:

- **All museums should embed sustainability into their L&D programmes.**
- **NMDC and sector partners to develop a cross-sector open programme of sustainability-focussed training in the 2024/25 financial year.**

AM thanked subgroup colleagues and noted the analogy with health and safety – new staff in all our organisations have a health and safety induction and we should be doing the same on environmental sustainability. AM invited questions and comments from the audience:

- Did the subgroup discuss governance – beyond Carbon Literacy Training, are trustees and boards equipped to support this kind of work and do we need to be more proactively bringing in expertise at board level? SK confirmed that the subgroup did discuss this although did not come up with a specific proposal. To take an example from UK Sport – national governing bodies for different sports are increasingly requesting training for trustees and decision-makers on environmental social governance. So beyond Carbon Literacy Training it would be useful to think about Environmental, Social and Governance (ESG) more holistically at board level. AM noted new Arts Council/Julie's Bicycle training for board members.
- The idea for a training programme is a good one – there is a lot of existing resource that could be turned into online tools or training to enable greater access.
- All museums that are funded either directly or indirectly by Government should be working towards net zero goals and contributing to the Government's targets. However museums are not required to report on this activity, nor is there any funding attached to the requirement to become more sustainable. There is therefore an opportunity for museums to make the case more loudly for their contribution to the things Government needs to do anyway, and for Government support for this work.

Slido questions:

What other sustainability-focused training have you undertaken during the last 12 months? – summary from 25 responses:

- Training beyond Carbon Literacy is quite limited, while some respondents mentioned specific and in-depth courses such as IEMA's Environmental Management course, there were few resources mentioned more than once.
- 8% had used Julie's Bicycle Climate Tools and associated training or participated in Trustee Training with smaller percentages mentioning other resources and networks such as Fit for the Future, AIM High Earth and LETI.
- 16% had done training in a specific area such as sustainable packing, sustainable procurement or venue energy management.
- Others noted no formal training but had learned from peers (8%), learned by doing, or sharing skills in an organisation.

What sustainability-focused training has been offered at your organisation that has had a great response? – summary from 26 responses:

- 58% mentioned Carbon Literacy as the best received or only sustainability focused training.
- 15% mentioned internal advocacy groups, task forces and green groups as the most successful mechanisms.
- Smaller numbers of responses mentioned training other than Carbon Literacy, with mentions of sustainable exhibition design, sustainable procurement and waste management. A small number noted Julie's Bicycle tools and AimHI Earth Sustainability training.
- 15% had done no sustainability focused training.

What aspect of sustainability would you be keen to learn more about? – summary from 22 responses:

- Many different topics emerged, demonstrating the need for broader topics to be covered by sustainability training.
- Most frequently mentioned were Scope 3 at 18%, with further desire to learn about specific elements of Scope 3 making up a large proportion (25%) of responses including waste, sustainable procurement, supply chains.

- Smaller numbers mentioned a variety of issues around understanding and measurement, including Carbon Literacy Training, setting baselines, developing solutions and sharing across organisations.
- Others mentioned digital sustainability, ethical funding, green claims and media training, 9% mentioned the need for education around offsetting and there were few mentions of nature-based solutions and systems change.
- 13% wanted training on how to engage visitors on sustainability.

What are the barriers/challenges in taking action to ensure the workforce is up-skilled and empowered in this area? – summary from 35 responses:

- 45% identified time as the main barrier, 45% responded that it was cost (most responses mentioned both together).
- A further 20% noted more generally that the problem is around capacity, resource and balancing priorities.
- Smaller numbers reported issues elsewhere with 11% mentioning the need for senior leadership support, 5% noting that succession planning to ensure that organisations retain the learning is an issue.
- Others mentioned the need for a wide range of skills that cannot be taught easily such as systems thinking, 5% mentioned the need to embed sustainability in HR practices and one response mentioned the need for a generational shift of priorities.
- A small number mentioned issues such as the need for training for all, the difficulty for freelancers to access training and the need for skilled staff to take the initial steps.

How can we rise to these challenges? – summary from 26 responses:

- By far the largest response reflected the need to face the challenge as a sector, with 38% highlighting the need to coordinate, collaborate and take collective action across museums and the wider heritage sector.
- 22% suggested that organisations needed to prioritise this work and to value sustainability and sustainability skills to move forward.
- 11% felt skills should be shared generally, with a further 10% mentioning specifics such as modular or compulsory training, or development of shared online training across the sector.
- 11% mentioned funding, and the need to incorporate sustainability into funding bids, or to find further funding for training and development. One response also suggested incorporating into Museum Accreditation.
- Other responses made various points such as a surveying the sector about needs, to share more case studies, for leadership to push this agenda and to influence decision makers.

Action 7

[Workforce subgroup] *Meet again to discuss feedback from UK Museum COP and agree how to take forward the Workforce subgroup recommendations.*

Session 8: Collections and Environmental Standards

Speakers:

Maria Balshaw, Bizot Group, Director, Tate & Chair, NMDC
Liz Johnson, Director of Museums and Cultural Property, Arts Council England
Reyahn King, Executive Director, Touring Exhibitions Group
Heath Lowndes, Managing Director, Gallery Climate Coalition
Eloise Stewart, Chair, UKRG & Senior Exhibitions Manager, National Portrait Gallery
Michelle Stoddart, ICON & Head of Conservation, Science Museum Group

Kathryn Simpson (KS), Policy and Projects Manager at NMDC introduced the session, thanking the panel and attendees for their participation in and contributions to UK Museum COP. KS noted this would be the final session before wrap-up.

KS noted that the aim of COP and the work leading up to it was targeted at tackling the museum-specific issues for sector decarbonisation and sustainability more broadly. The final session would therefore address the most museum-specific issue. As already referenced at the 2022 conference, environmental conditions were highlighted as one of the most important barriers to moving to a more sustainable footing and because management and care of collections are so integral to everything that museums do, the issue needed a joint sector approach.

KS noted that many initiatives had started since then to tackle this problem and during the development of COP, NMDC had been engaging with and encouraging a broad range of initiatives from various sector colleagues and trying to facilitate connections between organisations. The final panel would provide quick updates about key sector organisational initiatives that are working through these issues.

The organisations at COP: Arts Council England, Touring Exhibitions Group, Gallery Climate Coalition, UK Registrars Group, ICON, and finally BIZOT, are looking for ways to address and account for the impact of managing, displaying and touring collections. They are also developing guidance, research and leading the way with commitments for change. NMDC will continue to support their work and share learning across the sector.

Arts Council England – Government Indemnity Scheme Review

Speaker: Liz Johnson, Director of Museums and Cultural Property, Arts Council England

LJ provided an update of ACE's recent review of the Government Indemnity Scheme (GIS). LJ noted that GIS is a scheme that replaces the need for commercial insurance for cultural venues, it enables museums to borrow objects and art works. Last year the indemnity value was £21 billion pounds and without GIS many ambitious exhibitions wouldn't happen. Critically in straightened times it also saves the sector about £100 million pounds in the equivalent insurance premiums. ACE is committed to ensuring that the scheme maintains its international reputation as a trusted marker of quality and it is important to remember that GIS risk is shared between HMT – His Majesty's Treasury, the lender and the borrower and all parties must be content with the arrangements.

GIS was last reviewed in 2012 and the environmental conditions within it have been around for even longer than that. There has been a strong imperative coming from users to review it. In ACE's own strategy, environmental responsibility is also one of four Investment Principles which adds incentive to review it. The focus of the work was to look at relative humidity (RH), temperature and light and to take a desk-based approach to ask if the scheme was fit for purpose and looked for potential actions to reduce the climate impact of the GIS scheme. Through that review and through conversations at COP, LJ/ACE recognised a really strong keenness from the sector to reduce organisations' environmental footprint.

The desk research revealed three areas for further exploration; one – that internationally, more organisations are managing temperature, RH and light risks to collections on a case-by-case basis depending on the context of the exhibition and the objects involved. The next area the research found was that the greatest energy use in GIS display and storage is caused by mechanical control

of RH and temperature, no big surprise there but it bears saying. Finally the research also showed that the flex already existing within the scheme for appropriate management of those things is not widely understood.

As a side issue, LJ noted that it also became clear that there is a tendency to use the GIS guidelines in place of a general collections care standard, beyond the requirements of the scheme itself and so ACE will open a conversation with stakeholders about that and about what that means.

LJ noted the great collaborative effort from people via engagement today and asked if those present could support this work by contributing to the survey which was live on the recommendations of the review and some proposed actions. ACE needed to hear different perspectives on the options for replacing RH, temperature, and lux bands, as well as any potential unintended consequences of these decisions. The survey was open until 19th November.

ACE was also looking at a new application form for non-national museums that was already live and in the field. It is much clearer on what the flex is within the scheme and the form also only asks for the data needed to make a decision. In the New Year ACE would be re-presenting the guidelines to clarify what is a 'must', a 'should' and a 'could' in the requirements, giving greater clarity of areas that are essential and what is just advice. LJ thanked the partners who had collaborated on this work including ICON, ICOM UK, English Heritage, UKRG and of course NMDC.

Institute of Conservation (ICON)

Speaker: Michelle Stoddart, ICON Trustee and Head of Conservation, Science Museum Group

MS, a Trustee for ICON, introduced an environmental statement that had been signed up to by several heads of conservation across the UK. MS advised that the statement came out of the GIS discussions and wider work that was happening as ICON felt that something had to happen immediately. Conservation is a sector that likes a lot of scientific research before making recommendations so ICON wanted to publish this statement of intent and make sure the scientific research would support that.

The statement says:

'Professionals charged with the long-term care of cultural heritage, conservators and heritage scientists play a role in both reaching net zero targets and advancing the sustainability agenda. With their specialized expertise in preserving and managing assets they can drive significant reductions in energy consumption and emissions, effectively mitigating the effects of climate change.

The heads of conservation and scientific departments in national museums, galleries, libraries, and archives in the UK have taken a positive and progressive step by committing to a risk management approach to environmental requirements for collections materials. Balancing the care of and the access to collections with the demands of sustainability. The recommendations they make will be informed by their extensive knowledge and understanding of their collections ensuring they are both practical and effective. As skilled ethical practitioners, conservators can demonstrate that heritage preservation and sustainability are not mutually exclusive but rather interdependent and complementary.

Conservators and heritage scientists have the power to inspire sector wide colleagues to adopt more sustainable practices and work towards a net zero future in support of the Paris Agreement and the UK Net Zero strategy.

MS advised that the statement has been signed up to by a number of people, including many museums at COP, which was positive, and encouraged those with collections managers or heads of conservation that had not yet been involved but are keen to sign up to get in touch with MS/ICON. The aim of the statement was to encourage the sector to look towards sustainable ways of looking after their collections while increasing access and also acknowledging that one size does not fit all. It recognises recommendations around environment should be fit for purpose and each collection

may have different approaches. The statement will start to be accompanied by recommendations, for example those coming from the GIS review and scientific research. With current funding opportunities arising around heritage science in particular there is also a real opportunity for the sector to carry out scientific research that can change the sector and beyond.

Touring Exhibitions Group (TEG)

Speaker: Reyahn King, Executive Director, Touring Exhibitions Group

RK introduced TEG, which many organisations at UK Museum COP are members of. TEG exists to support the sector in making exhibitions and touring them. TEG is very new to the Arts Council fold, having become an Investment Principle Support Organisation (IPSO) in 2023, and as part of that TEG will be supporting environmental sustainability, specifically focussed on exhibition making. RK noted that TEG's most recent members survey found that 40% of members want support to develop more environmentally sustainable exhibitions but TEG wanted to dig a bit deeper into that number to find out what exactly it meant in practical terms.

Supporting the sector to produce more sustainable exhibitions is something that TEG will be doing as part of an overall review of all training. TEG's professional development manager, Dana Andrew, is leading a review of current training and TEG will be bringing out a new training offer to the sector next year that will include training around making more environmentally sustainable decisions when touring exhibitions.

TEG has plans to refresh other key resources for the sector including their website and online manual. TEG is also currently discussing with the Design Museum the potential to build on their excellent Environmental Impact Guide. Many TEG members, including smaller organisations, are keen to see really practical tools. The Design Museum developed the guide following the 'Waste Age' exhibition, it includes a decision tree and practical steps to make the right decisions for exhibitions so TEG is talking to them about how to adapt the guide for exhibitions that will tour.

RK noted that TEG is also planning to commission research to aggregate some of the work that is already being done on sustainable exhibition making. The research will aim to make it easier for people to navigate advice, resources and decisions. The research will look at what can be learnt from other sectors for potential parallels, such as the music industry, which has done a lot of research into the impact of touring concerts, the production of music and the most sustainable way to experience music. That research brief is not written yet and RK encouraged attendees to come forward with any burning ideas.

UK Registrars Group (UKRG)

Speaker: Eloise Stewart, Chair, UKRG and Senior Exhibitions Manager, National Portrait Gallery

ES provided a quick introduction to UKRG; UKRG is a forum for exchanging ideas and expertise between registrars, collections managers and museum professionals, with just over 500 individual members. UKRG also chairs the informal network of European Registrar Groups which has a conference every two years, not only bringing information to members but disseminating it across partners through an informal network of registrar groups across Europe.

ES continued that UKRG aims to establish and promote standards of good professional practice and support national and international standards in their areas of work. Over the past few years every event has had a sustainability angle on it, including bringing information to members on Carbon Literacy and sustainable practices. UKRG members are keen for change but there is a lot of information to wade through, which COP has recognised. The clarity of that information and where you go for it is important and something Maria will cover more under the Bizot section of the session.

UKRG members deal with both static collections storage and loans in and loans out, lending both nationally and internationally. UKRG has been part of the reference group for the Arts Council's GIS review as end-users and a critical partner. The European Registrar Group Network met recently and is also developing a declaration which includes practical solutions to deliver changes to

environmental parameters because sometimes that is the obstacle on a day-to-day practical, logistical level of just how to do this. UKRG is hoping to give that kind of information to members to really support those conversations.

Finally, one of the big challenges has been finding a reliable carbon calculator as an industry standard, so UKRG has been working with Heath Lowndes and Gallery Climate Coalition to build on their existing calculator.

ES noted through the European Network of Registrar Groups, UKRG have put together a career training framework that has recently been updated with virtual career training to help people understand what the different types of couriers are and how they can make the best decisions around what courier to send. UKRG is also putting together a framework for decision making and taking around justifications on why you need to send a courier so people have to really write that down and justify it at their own institution, helping members on a day-to-day level.

Gallery Climate Coalition (GCC)

Speaker: Heath Lowndes, Managing Director, Gallery Climate Coalition

HL shared a brief overview of GCC – a charity and membership organisation set up to provide guidance on environmental sustainability specifically for individuals and organisations working in the visual arts. The organisation now has over 1,000 members from more than 40 countries including artists, non-profits and institutions as well as commercial galleries and other art sector businesses. The idea is to align this cross-sector network to the same standards and targets to ensure all are working together and speaking the same ecological language as we transition to low impact operations. Membership is free and open to anyone willing to act in line with the principles of environmental responsibility.

HL noted that the first update links to UKRG's need for a carbon calculator. GCC is about to embark on a major redevelopment of their tool which has been planned for a while. HL confirmed that the full funding required had been secured to build the tool which had primarily been supported by a foundation in the US. The plan is to improve and expand upon the current tool, increasing accuracy and adding new functions to make it applicable for everyone in GCC's broad membership which has vastly expanded since it was originally built four years ago.

Crucially the tool will remain free and as user friendly as possible, allowing anyone to get a quick understanding of their carbon emissions, and to help inform decision making, provide tracking for specific projects like exhibitions, and annual retrospective carbon emissions reporting. Like the current tool it will be designed with the intention of simplifying carbon reporting processes and prioritising the most carbon intensive activities. It won't give the full auditing experience that you get with Julie's Bicycle (JB) tool, which is much more detailed and comprehensive. However, the metrics that underpin GCC's calculator will match those in the JB tool for consistency, and GCC is committed to working with JB to share data and analysis, so the calculator is a complimentary tool to JB's and as compatible with their methodologies as possible. GCC is looking for collaborators for this project, and as ES said they are speaking with UKRG about that and having conversations with the Design Museum amongst others. GCC want more input and more feedback, so this is an open call for anyone who wants to become a contributor or join a development workshop.

Secondly HL mentioned GCC's Sustainable Shipping Campaign, inviting anyone interested to get involved. It addresses the sector's impact relating to international freight, particularly the dependency on moving objects by aeroplane and the consumption of single use plastics in packaging materials. GCC asks members to prioritise low impact freight options wherever possible and to adapt schedules to accommodate the extended lead times that come with alternative methods. The campaign also calls on the shippers to include emissions data on their quotes and their invoices as standard. That is to aid the data collection and carbon auditing process as well as generally improve carbon understanding and Carbon Literacy. GCC is also asking the shippers to increase and proactively offer alternative services and consolidated routes.

The campaign has made good progress so far particularly in engaging shippers and lobbying insurance companies with their policies around insuring commercial galleries with for example, sea freight. However, GCC hasn't had much involvement from museums and the large non-profit institutions, perhaps because of the additional complexities around loan agreements and GIS but GCC is keen to hear from organisations to gain a better understanding about the challenges and what support is needed to move to sustainable operations. To echo someone on a previous panel, the more voices involved in the campaign the greater leverage to create more change and influence the system. HL signposted the website for more information and contacts.

Ki Culture

Finally, HL provided an update on behalf of Ki Culture one of GCC's regular collaborators, and with whom they partnered last December to co-host the first international conference on climate control. The idea for the conference was to address issues surrounding regulations for collections and explore opportunities to establish new smarter and better tailored standards for climate control which allow for regional variations, and in doing so reduce the emissions of institutions and energy bills.

Following that conference, a pilot programme was launched in collaboration with the Association of Danish Museums and Ki Culture is working with 10 of their members to implement updates to their climate control systems and collect data on the outcomes. The association will then use the findings to update their standards for every museum in Denmark which is exciting progress for that project. The next cohort of the pilot launches soon with a group of museums from Canada, the US and Norway and there are more trials in the pipeline with groups in Sweden, France and Austria and Germany. There isn't one in the UK yet, so HL issued an open invitation for anyone who would like to take part in a trail programme to get in touch with him or Caitlin Southwick from Ki Culture.

HL ended by noting that there would be a part-two of the climate control conference to look out for next year which would present case studies and conclusions.

Bizot Group

Speaker: Maria Balshaw Director, Tate and Chair NMDC

Maria Balshaw (MB), speaking on behalf of the Bizot Group of international museums, introduced the newly refreshed Green Protocol, and commented that this reflected the work that previous brilliant colleagues had just talked about.

The Bizot Group is named for Madame Bizot who was the founder of the group and until quite recently the only woman member. Bizot is an international group, until recently made up of largely European and North American museums, but over the last 5 years through advocacy from the members it has expanded to include museums across the African continent, Eastern South Asia and South America.

The Bizot Group had already agreed a Green Protocol in 2014 which some will have seen or used. Two years ago, with an expanded membership, the group agreed to review that protocol and surveyed members to see who was using it. MB and others were shocked to find that only 50% of the members were implementing the protocol themselves; a sign that there is still an enormous push needed to get even the most basic green principles enshrined in the way institutions, locally, nationally and internationally are run.

The group determined that a set of principles were needed to support the operation of museums across the global south as well as the north and that is what the Bizot Group believe the protocol now enshrines. Developed with working groups from across the globe, using Zoom (so no one flew anywhere), they tested all the areas that the Green Protocol covered and drew together the incredible body of research that many institutions were developing across the world.

MB advised that delegates could now access the summarised set of principles, a series of case studies and handbooks that had been pulled together in an open-source manner. They brought together the body of research that global colleagues had developed. One of the key issues faced

as an international group, which was also referenced during UK Museum COP, was the fact that too much is going on by too many different people and nobody is quite sure what the best practice is. MB thanked colleagues nationally and internationally that had assisted with that work.

MB noted the protocol says very little that is surprising, it advocates first of all that we take a risk- and evidence-based approach, to the needs of an object rather than the blanket conditions you might want to establish in a museum room. It advocates that we don't assume that air conditioning or high energy cost solutions are required for the long-term sensible care of a heritage or art collection. It asks that reducing carbon emissions is always set as a key objective for architects, designers, exhibition designers and engineers that are working within museums. It seeks to minimise waste and recycling when planning the design and build of exhibitions just as RK was talking about.

The big change is that it makes a strong case for assuming that 'freight by ship' rather than 'freight by air' would be the first option and enshrines a principle that underlines the whole protocol which is – green thinking first, knowing that sometimes individual risk assessments might dictate other conditions. The aim is to start in the place where you need to be rather than going there afterwards. Risk-based does mean that if there are super fragile objects you can find different solutions for them.

Bizot also advocates that we look as a sector at exhibition duration to unlock different patterns of regional, national and international tours, in order to consider the total carbon emissions from transport, the exhibition and the public benefit of what we do. All of that is straight forward. The parameters around climate control were already enshrined in the original Bizot Protocol and they echo what ICON have helpfully advocated for in this country.

Tate has proposed to stop working with museums that do not adopt these basic minimums and we debated that amongst the international group of Bizot members, many of whom have agreed that is the model that we should set. So there is serious clout and connection behind making a difference here.

GCC have done amazing work in persuading insurers and owners of objects that shipping is a safe method, it is worth noting that the current Hyundai Commission in the Turbine Hall, which is entirely made from reclaimed and recycled objects, came to Tate very slowly and appropriately by ship. It did not feel congruent to show El Anatsui's work having flown it here. So we have to think differently but it is a very visible demonstration that it is possible if you build it into your planning cycles.

MB noted a 5-minute pause for table discussions before asking delegates to vote on adoption of the revised principles. MB strongly advocated adoption as there is still lobbying work going on with colleagues across the globe that didn't adopt the protocol and aren't willing to go beyond the very basics. Given the amazing work that has been going on by colleagues across the UK there was a need to loudly lead by example.

The Bizot Green Protocol – 2023 Refresh September 2023

1. Declaration of intention

We acknowledge the need for our museums to contribute to effecting change in our ways of working and addressing with a sense of urgency the climate and nature crises.

With the Bizot Green Protocol, the Bizot Group recognizes that:

- museums need to approach long-term collections care in a way that is environmentally sustainable.
- this necessary shift requires proactive and strategic engagement at all museum levels.
- 'greener museum practices' call for a systemic and collective effort and the large adoption of a 'greener practice first mindset', which implies that we have to opt out from a greener practice as this may not always be possible to apply rather than discarding it in the name of habit. As such, collaboration, trust and reciprocity are at the heart of the directions set out in the Protocol and its associated handbooks.

Our approach is evidence based and has been shaped by the expertise and practice of museum professionals across the museum fields (ie. Restoration, conservation science, facilities management,

security, registrars, exhibitions, sustainability managers) as well as climate science and international reports such as those published by the IPCC¹.

The Bizot Green Protocol is composed of guiding principles, guidelines relating to climate controls and a series of handbooks to provide evidence, shared practice and tools.

We commit to refresh our work every five years to ensure we incorporate the latest knowledge and technological advances and, in turn, support museums to deliver their mandate in the most sustainable way possible.

2. Context for the 2023 refresh

In November 2014, the Bizot Group agreed on the Bizot Green Protocol comprising a series of guiding principles and new standards for environmental control. The Protocol was subsequently adopted by a number of national organisations (e.g. NMDC in the UK; AAMD in the US; Council of Australian Museum Directors).

In December 2022, the Bizot Group launched a working group of 54 museum professionals representing various museum expertise areas and organised in relevant subgroups to work on a refreshed Bizot Green Protocol to reflect the further shifts in knowledge, evidence, technology and appetite for change and add a series of handbooks to the existing Protocol to ease its implementation. The main outcome is some additional wording around transport and virtual couriers in the wake of new practices successfully tested during the COVID-19 pandemic, as well as a series of handbooks that provide scientific evidence, testimonies of museums having implemented the Protocol, and guidelines and practical tools to facilitate its adoption and implementation.

3. The Guiding Principles

Museums should review policy and practice, particularly regarding loan requirements, storage and display conditions and building design and air conditioning systems, with a view to reducing carbon footprints. Museums need to find ways to reconcile the desirability of long-term preservation of collections with the need to reduce energy use and carbon consumption.

Museums should apply whatever methodology or strategies best suit their collections, building and needs, and innovative approaches should be encouraged.

The care of objects is paramount. Subject to this:

- environmental standards should become more intelligent and better tailored to specific needs. Blanket conditions should no longer apply. Instead, conditions should be determined by the requirements of individual objects or groups of objects and the climate in the part of the world in which the museum is located;
- where appropriate, care of collections should be achieved in a way that does not assume air conditioning or other high energy cost solutions. Passive methods, simple technology that is easy to maintain, and lower energy solutions should be considered;
- natural and sustainable environmental controls should be explored and exploited fully;
- when designing and constructing new buildings or renovating old ones, architects and engineers should be guided significantly to reduce the building's carbon footprint as a key objective;
- the design and build of exhibitions should be managed to minimise waste and recycle where possible.

Transport has a significant impact on carbon emissions². To reduce this impact, museums should adopt the principle of 'greener option first' – in other words the low-carbon emission options (such as transport by sea, road or train, and virtual couriers) when planning the movement of people and objects. This principle of 'greener option first' translates into a series of elements to be carefully considered before discarding the more environmentally friendly option. This principle is based on the notion of reciprocity (so the whole ecosystem can move towards 'greener' practices), collaboration and professional trust.

¹ IPCC - The Intergovernmental Panel on Climate Change - <https://www.ipcc.ch/>

² See benchmark research from GCC and report made by STICH, Sarah Nunberg and Matthew Eckelman <https://stich.culturalheritage.org/life-cycle-assessment-of-museum-loans-and-exhibitions/>

Working towards affirming shipping by sea, road or train as the future 'preferred option' for long distance object movement

While shipping by sea, road, or train is not always possible, museums should adopt the following steps to move the ecosystem towards these 'greener transport practices' or lower carbon emission options:

- To systematically ask transport agents to provide a quote for transport by sea, road or train where such transport is available.
- To systematically ask transport agents for an invoice with clear carbon emissions.
- To record incidents and data emissions by mode of transport and analyse this on an annual basis
- To advise the art shipper to actively seek to consolidate shipments.
- To advocate for reciprocity in not requesting exclusive shipments or "last on, first off" and advocate for flexible timescales for releasing object for loans.

Affirming virtual couriering as safe and practical and the 'preferred option' when moving objects

While virtual couriering may not always be possible, museums should work to reduce the need for couriers through a process of risk identification and mitigation, with use of couriers as last resort if no other method of mitigating risks can be identified. Museums should follow these steps in decision making:

1. Presumption against courier
2. Virtual courier
3. Local (bookend) courier
4. Shared on-site courier
5. On-site courier

Working towards extending exhibition duration to unlock the international pattern of tours and reduce total carbon emissions from transport. We invite therefore museums to explore collectively longer exhibition runs as a factor to reduce their carbon footprint.

4. The Bizot Green Guideline

For many classes of object containing hygroscopic material (such as canvas paintings, textiles, ethnographic objects) a stable relative humidity (RH) is required in the range of 40 – 60% and a stable temperature in the range 16 – 25°C with fluctuations of no more than $\pm 10\%$ RH per 24 hours within this range. More sensitive objects will require specific and tighter RH control, depending on the materials, condition, and history of the work of art. A conservator's evaluation is essential in establishing the appropriate environmental conditions for works of art requested for loan.

Slido questions:

Do you support the principles of the refreshed Bizot Green Protocol?

Multiple Choice Poll  57 votes  57 participants

Yes - 57 votes



No - 0 votes



Do you agree that NMDC should formally endorse the Protocol?

Multiple Choice Poll  57 votes  57 participants

Yes - 55 votes



No - 2 votes



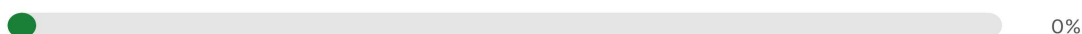
Will you commit to implementing the principles of the Protocol at your museum?

Multiple Choice Poll  57 votes  57 participants

Yes - 35 votes



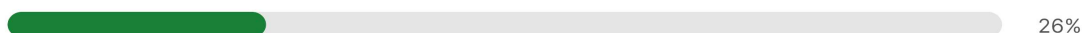
No - 0 votes



Don't know - 7 votes



N/A - 15 votes



MB congratulated the audience on the first 100% vote of UK Museum COP and the great endorsement of the principle, noting it was refreshing to see agreement. The feedback would be taken back to the 58 international members of the Bizot Group.

Addressing Arts Council colleagues, MB noted that one of the things that influenced director level discussion amongst the Bizot group was their knowledge that the UK was reviewing Government Indemnity Standards, because sometimes internationally museums say their government can't do or won't let them do certain things, the fact that the UK Government funding that supports museums and galleries was looking at this principle really made a difference.

MB noted that there is a strong sense that people want to be able to adopt these things but there is a still a huge amount of fear so requested attendees to be advocates for this. The GIS needs to absolutely enshrine the Bizot Protocol and that will then influence global practice which is very important. MB then handed over to the Chair Nick Merriman again to bring together the many actions of today.

Action 8

[NMDC members] *Formally endorse the Refreshed Bizot Green Protocol.*

Action 9

[NMDC staff] *Continue to convene the group and champion the work of sector bodies working towards reducing the impact of collections.*

Session 9: Chair's Summing Up and Final Q&A

Speaker: Nick Merriman, Director Horniman Museum and Gardens, Chair UK Museum COP

Global Call to Action

Nick Merriman (NM) thanked the previous panel and before summing up asked the audience to vote for endorsing a call to action to advocate for a 'Joint Work' proposal for climate action (see appendix III) co-organised by Julie's Bicycle (JB). NM noted 100% agreement so far but asked more people to add their votes.

Summing up

NM moved to summing up – noting significantly and importantly that UK Museum COP was the first time the leaders of the UK museum sector had come together as a group to examine action on the climate crisis. NM noted that in some informal discussions with attendees, some felt more progressive and radical, and more could have been achieved, whereas some are a little bit concerned for example about balancing climate issues with heritage.

NM commented that the day had made clear that individual organisations and individuals were at different stages. Some have put a huge amount of resource into this work and are international leaders in mitigating the climate crisis. Some, usually not through lack of will but lack of resources, are barely on the journey and feel sometimes a bit confused. Acknowledging that everyone is at different points, the aim of COP was to try and bring everyone together and find a way through what is often a very muddling situation. The last session helpfully tied together lots of strands that have been going in slightly different directions around collections.

NM noted that COP had brought us to a stage beyond the Whitworth (Environment Conference) in 2022, to a stage more focussed on practical actions benefiting from the support of the different working subgroups. Noting that the day moved the conversation from the general to the more particular and action focussed.

Ethics: the ethics statement aimed to outline - 'What role does the museum sector have in here?' The proposal was that we have this particular role because of our fairly unique long term position. (NM referred to the Slido results) 95% endorsing this, so the subgroup will take that away and make the tweaks as discussed and issue this statement.

Heritage Buildings: the Heritage buildings session involved much more discussion and clarification so the subgroup will go away and discuss further. The results were less conclusive about whether climate should take precedence in legislation and planning so the subgroup will reflect and then engage further with the sector on that.

In funding terms, Option B, which suggested that any **new** central government not **all** central government funding be used towards climate action, had a bit more consensus. But as discussed, there is a lot more clarification needed, so the Heritage subgroup will reflect on this and find a way to come back to NMDC with some refinements of the proposition.

To summarise the other actions proposed – a change in legislation and planning guidance is needed and anybody dealing with a heritage building and museums will understand that there has got to be some movement there, otherwise the targets can't be met.

There is also a need to quantify and understand the funding needs, which will require new public funds. The sector does need to understand the figures and the arguments around cost benefits of investment. There is also the proposal to have new specialist staff in strategic organisations, central coordination of activity, possibly a single reporting structure, although there were some caveats about that. Certainly an end to duplication and trying to move forward together, shared with the public and highlighting biodiversity and certainly not damaging biodiversity. Again the concerns raised about the differences in legislative systems across nations and the focus on England also need to be addressed.

Decarbonisation Case Studies: NM referenced the useful series of case studies from colleagues at Buro Happold which would be circulated in due course. NM proposed the idea that Display Energy Certificates could also be used or referred to in Accreditation, for example, developing an improvement plan for those who are at G, F and so on. The case studies clearly showed that investment in improving the energy certification of museums at those lower levels could have massive benefits in terms of carbon output saving.

Funders: funders were avowedly in attendance to listen, the subgroup had met several times and would continue to meet and reflect on what they had heard today.

Scope 3: NM highlighted the session had produced a whole series of useful mini case studies; the Ashmolean's great work on getting a handle on Scope 3 and the vital importance of procurement, museums looking at decarbonisation don't place enough emphasis on procurement, but it can be the way to make a massive difference in terms of reducing carbon emissions. Similarly, the importance of training and that can include Carbon Literacy Training. The vital importance of having a sustainability plan and the final result from the Slido vote showed 74% already have one in place, acknowledging organisations present that are not museums or galleries. 99% agreed it is reasonable to ask all museums to commit to having one, that is something for NMDC to take forward as an action.

NM noted that 88% were committed to reducing domestic flights. Northern Ireland might be an issue but NM cited a colleague who had done 'the hard yards' on attending COP.

A great majority committed to measuring and reducing business travel. Acknowledging that it can be hard but NM suggested considering individual carbon budgets (especially for directors) or an organisational carbon budget.

Measuring visitor travel was still a vexed issue. Most agreed that 'there should not be an expectation on museums to measure visitor travel as part of Scope 3' and there were lots of reasons in the comments from the Slido vote not to. In answer to 'Should funders be asking museums to report on visitor travel' – the majority decided no, it's more important to focus on actions to influence visitor behaviour. 17% agreed on doing both (reporting on and influencing visitor travel), just 13 % saying yes to reporting visitor travel. It could easily be something for a future meeting on public engagement and to looking at how to influence visitor travel choices with our limited levers.

Workforce and Skills: NM confirmed there was a great show of hands on the question of those who had undertaken Carbon Literacy Training. 47%, nearly half, are already carbon literate. 12% were in the process of training so there was still some scope for improvement. NM noted concerns around embedding carbon climate issues and climate awareness in higher education and training. The role of climate training in apprenticeships and how museums can help develop those. There was also an ask around NMDC, University Museums Group and UK Museum COP to come together to develop a scheme. Sustainability mentoring was a really good idea, an organisation would need to take that up which could be NMDC, AIM, or the Museums Association. Finally, the recommendation that sustainability is incorporated into recruitment processes.

The very specific ask on sustainability being embedded into learning and development plans was warmly welcomed and there will be a commitment to develop an open programme of shared training for NMDC members at the beginning of next financial year.

Collections: the final Collections session was a good example of unity of purpose amongst specialists who have done a lot of work on this. Supporting the Bizot Green Protocol was strongly endorsed. There was a slight dropping off of numbers voting on NMDC specifically endorsing it and implementing it at attendee's organisations. More thought needs to go into making the 2023 refreshed protocol more common parlance, and NMDC can take the lead in making sure it is implemented.

Next steps

NM moved on to summarising the next steps before opening up to the floor for more suggestions on next steps and comments.

1: All attendees as individuals to go back and implement some of the ideas discussed today in your own organisation and connect with people here today who might be able to help you.

2: In terms of the museum sector as a whole there are some things that have already been noted and that the NMDC executive team and colleagues will take forward including:

- Develop a press release and a rapid programme of press engagement immediately around the declarations.
- Produce a full written report on the conference, bringing together the discussions, the issues voted on, the actual figures of voting and links such as the GIS survey. A complete package based on the recording (the audio of which won't go further), will be shared with all delegates in due time.
- The NMDC team will take away and progress issues raised, including the development of a training plan etc. We anticipate that some if not all of the working subgroups will continue to meet to reflect on the outcomes and feedback from their particular areas of work. NMDC will find a way to come back to the sector to report on progress.
- Report the overwhelming endorsement of the Global Call for Action from Julie's Bicycle, and communicate that when it goes open and public on the 8th of November.
- NMDC with sector partners will take forward the production of a guide to the various toolkits and the shared training programme.
- Broadly set out a museum sector programme and ask for an incoming new government. If there is no new culture money the only areas where there might be new money is to support the green economy. So any recommendations that are made on investment in decarbonisation, changes to planning etc. should be made with that in mind.

Audience comments and suggestions

Before welcoming suggestions from the floor, NM noted there might be ideas for future conferences, perhaps on an annual basis, they could look at biodiversity, public engagement or other areas. Finally NM commented on the need to diversify the range of people in the room who are particularly committed to climate action, particularly as the museum sector isn't very diverse. NM then asked for any comments about next steps or view on what had been during the day:

Audience comments included:

- The need to consider how 'green' the funding is that we're all using to support our initiatives, and can we move to funding and investment that are supporting portfolios funding the changes we want to make. NM noted that it has been congruent that funding is ethically sourced but there is an onus on museums to ensure the funding they seek is ethical. As many NMDC members are funded by government, investment comes from taxation, not from oil and gas or from climate depredations.
- The environmental cost of digital, now that we're all moving towards a more digital world. It was also noted that there is progress being made on digital footprints, there are some international case studies where people are displaying websites in different formats so the user can select a less carbon intensive website and images can be removed if they're not needed. Other examples where the website decides whether there is high use and it self-selects and removes images. NM noted that it is something the working subgroups should take away and look at.
- The MA is doing a review of the Code of Ethics at the moment so this conversation should link up. On a related note, a question was asked about whether the Collections subgroup will keep going and if it will be looking at wider issues around disposal and sustainability of the size of collections and holdings. NM responded that this subgroup would continue and progress actions and consider other issues.

- The conversation around visitor travel should continue as the wording on the Slido question may have slightly steered the decision, so there is more to unpick. Measurement is an issue, especially when looking at national and international travel, as this is always based on exit surveys and makes offsetting difficult since the results aren't accurate. However there is the opportunity to talk to visitors and look at the impact of their travel choices.
- Once the work by Buro Happold is complete – there is a need to look at skills gaps and what kinds of trades are needed to implement changes. Some London Councils have looked at the Retrofit challenge in Local Authorities and are increasing energy efficiency in homes, so there is evidence about the gaps in trades. Even if funding is delivered we need to be able to implement it, without skilled trades we will be held back. NM agreed there was also a need to look at heritage skills and mitigation skills for the sector.

Maria Balshaw, Chair of NMDC made two final comments, one that MoMA had introduced an assessment of business travel, which allocates per department or division, a carbon budget and they allow trading. It has become like a bartering system within the organisation but they are really firm at a high level of not wishing to exceed limits. It puts the onus on the individual but also provides creative realisation of goals within certain limits which seems healthy.

MB noted a bigger picture comment about the need for a change in behaviour amongst sector leaders specifically on travel, whereby there is an opportunity to lead by example. Flying around the world constantly isn't sustainable either for the environment or for the individual. MB referenced the Art Power List, which was often synonymous with a set of individuals who travel extensively. As leaders of organisations MB highlighted the need to change personal behaviour to enable organisations to move in the right direction. MB stated the importance of measuring personal travel and noted hers is already half of what it was.

NM closed off with one final point which hadn't come up other than in reference to the flooding at Derby Museum but that should be added to the agenda, adaptation and mitigation as the climate crisis is evidently manifest around us.

NM finished the session thanking the NMDC team, particularly Suzie and Kathryn who worked flat out behind the scenes, all of the working subgroup members who have put a huge amount of work in preparation and also the Tate team, right across the board, in making UK Museum COP happen. NM gave final thanks to everyone for attending and participating.

Action 10

[NMDC staff] Report the agreement to sign Julie's Bicycle Global Call to Action and NMDC added as a signatory.

Action 11

[NMDC members]

- Including wider sector, to be encouraged to sign up to Julie's Bicycle Global Call to Action.
- All attendees as individuals to take what has been discussed to implement in their organisations and connect with others at COP who can help.

Additional actions for NMDC to pursue:

- Progress the actions and recommendations of COP in collaboration with sector colleagues and NMDC members and develop mechanisms for reporting and holding the sector to account on progress.
- Consider further issues to take away for future discussion: environmental costs of digital, adaptation and resilience to climate change beyond mitigation, biodiversity (in more focus) and public engagement.
- Work with museums and sector bodies on collections issues.
- Work with the sector to further develop a set of asks for an incoming government.

APPENDICES

Appendix I: UK Museum COP Press Release

Date of issue: 6 November 2023

UK MUSEUM LEADERS COME TOGETHER FOR UK MUSEUM COP AND ISSUE FIRST EVER JOINT COMMITMENT TO TACKLE CLIMATE CHANGE

Representatives of UK museums, sector bodies and funders took part in the first **UK Museum COP** at Tate Modern this week organised by the National Museum Directors' Council (NMDC).

The event secured consensus from museum leaders on collective action to decarbonise the sector and mitigate the impacts of the climate and biodiversity crises.

The museum leaders today issued their first ever joint commitment for collective action:

"As leaders of the UK museums, we feel a responsibility to speak out about the current climate and biodiversity crises and call upon UK politicians and businesses to accelerate action to mitigate this crises before it is too late. We are already around or beyond crucial tipping points: global temperatures are higher than they have ever been since humans emerged as a species, and extinctions are occurring at around a thousand times the normal rate. There is an existential threat to the world we have become accustomed to.

Museums are institutions with a long-term view. Many have collections relating to the Earth's five previous mass extinction events, and we are now in the midst of the sixth, the Anthropocene. UK museum leaders feel they have an ethical obligation to take action to alleviate that damage.

We will:

- Use relevant collections, programmes and exhibitions to engage audiences with the climate crisis and inspire them to take positive action,
- Introduce more sustainable collections management,
- Develop and implement decarbonisation plans which include relaxing carbon-hungry environmental parameters,
- Undertake measures to mitigate the impacts of extreme weather and adapt to new challenges,
- Increase biodiversity in our green spaces.

Like all organisations across the country, museums need assistance with decarbonisation, mitigation and adaptation. We call upon businesses, funders, current and future governments to facilitate this, and maintain and deliver on commitments to achieve net zero carbon emissions and protect our natural environment."

The UK Museum COP was the culmination of work by a series of subgroups each tasked with considering a different key issue for museums and proposing actions and recommendations to increase momentum in tackling barriers to sustainability. The areas of focus were: ethics; heritage buildings, adaptation and planning; Scope 3 challenges; workforce and skills; funding; and collections and environmental conditions.

Key recommendations:

- Urgent changes to planning legislation and guidance, and increased investment to ensure the sustainability of heritage buildings,
- Development of a new central resource linking to current advice and guidance on sustainability, including clear signposting to appropriate resources for different types of museums,
- Sustainability to be incorporated into Learning and Development programmes and recruitment, development of a mentoring scheme to share knowledge, and a cross-organisational training programme to be rolled out in 2024,

- Inclusion of environmental sustainability in key routes into the sector such as Museums and Heritage studies and apprenticeships,
- Carbon Literacy Training to be sustained, expanded, and strategically funded,
- All museums to adopt a 'greener option first' principle in all areas of their practice, including more intelligent and lower-energy environmental conditions for collections, more sustainable exhibition design and transportation of objects.

Nick Merriman, Chief Executive, Horniman Museum and Gardens & COP Chair, said:

"Museums have a special place in the debate about the climate and biodiversity crises because they can take a long-term view, beyond the short-term cycles of politics and economics. The fact that the whole museum sector has come together to stress the urgency for action is hugely significant. We will now work together to implement the actions we have agreed."

Maria Balshaw, Director, Tate and Chair, NMDC, said:

"The NMDC was delighted to convene the first UK Museum COP at Tate Modern this week to agree actions museums and galleries can and should take to address the climate and ecological crises. Museums and galleries have a unique perspective as institutions that have to take a long-term view with their mission to preserve collections and stories for the long future. The conference agreed a series of vital actions to reduce the environmental impact of museums and show how they can inspire positive action for our public."

Representatives from the following organisations attended the event: Arts Council England, Art Fund, Association of Independent Museums, Beamish: The Living Museum of the North, Birmingham Museums Trust, Bizot Group, Black Country Living Museum, Bowes Museum, Brighton and Hove Museums, Bristol City Museum & Art Gallery, British Film Institute, British Library, Buro Happold, Department for Culture Media and Sport, Derby Museums Trust, Design Museum, Esmée Fairbairn Foundation, Fidelity UK Foundation, Gallery Climate Coalition, Garfield Weston Foundation, Hampshire Cultural Trust, Historic Buildings and Places, Historic England, Horniman Museum and Gardens, ICOM UK, Imperial War Museums, Institute of Conservation, John Ellerman Foundation, Julie's Bicycle, Leeds Museums and Galleries, Llywodraeth Cymru/Welsh Government, Manchester Museum, Museum Development North-West, Museum of the Home, Museums Association, Museums Galleries Scotland, National Army Museum, National Galleries Scotland, National Lottery Heritage Fund, National Museum Directors' Council, National Museums Liverpool, National Museums NI, National Museums Scotland, National Museums Wales/Amgueddfa Cymru, National Portrait Gallery, National Trust Scotland, Natural History Museum, Renew Culture, Royal Air Force Museum, Royal Albert Memorial Museum, Royal Armouries, Royal Botanic Gardens Kew, Royal Museums Greenwich, Science Museum Group, Sheffield Museums, Tate, The Ashmolean Museum, The National Archives, The National Gallery, Touring Exhibitions Group, Tullie, Tyne and Wear Archives and Museums, UK Registrars Group, University of Cambridge Museums, University of Leicester, V&A, Wallace Collection, Wolfson Foundation and York Museums Trust.

Press Enquiries:

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Appendix II: Subgroups and Stakeholders

Subgroups

Ethics

- Nick Merriman, Chief Executive, Horniman Museum and Gardens (Chair)
- Helen Barker, Director of Collections, Programme and Interpretation, Beamish
- Andrew Lovett, Director, Black Country Living Museum
- Sally MacDonald, Director, Science and Industry Museum
- Michael Terwey, National Trust Scotland
- Sara Wajid, Co-CEO, and Niels de Vos, Chair of Trustees, Birmingham Museums Trust

Heritage Buildings, Planning and Adaption

- Hedley Swain, Chief Executive Officer, Brighton & Hove Museums (Chair)
- Kathryn Blacker, Chief Executive, York Museums Trust
- Alex Burch, Director of Public Programmes, Natural History Museum
- Hannah Fox, Director, Bowes Museum
- David Hopes, Head of Leeds Museums and Galleries
- Steve Miller, Head of Norfolk Museum Service
- Nick Ralls, Chief Executive, Ironbridge Gorge Museum Trust
- Sonia Solicari, Director, Museum of the Home

Funding

- Caroline Mason, Chief Executive, Esmée Fairbairn Foundation (Chair)
- Sufina Ahmad, Director, John Ellerman Foundation
- Philippa Charles, Director, Garfield Weston Foundation
- David Hall, Chief Executive, Foyle Foundation
- Darren Henley, Chief Executive, Arts Council England
- Eilish McGuinness, Chief Executive, National Lottery Heritage Fund
- Paul Ramsbottom, Chief Executive, Wolfson Foundation
- Moira Sinclair, Chief Executive, Paul Hamlyn Foundation
- Jenny Waldman, Director, Art Fund

Scope 3

- Maggie Appleton, Chief Executive Officer, RAF Museum (Chair)
- Paul Crofts, Chief Operating Officer, Black Country Living Museum
- Rachel Davies, Director of Operations, Ashmolean Museum
- Adrian Fitzpatrick, Sustainability Manager, National Museums NI
- Ruth Gill, Director of Public Programmes, National Museums Scotland
- Melissa Painter, Head of Sustainability, V&A
- Alex Rock, Director of Commercial and Operations, Derby Museums
- Lisa Wilkinson, Sustainability Manager, Beamish

Workforce and Skills

- Andrew Mackay, Director, Tullie (Chair)
- Tilly Blyth, Head of Museum Studies, University of Leicester
- Ali Criddle, MDO Environmental Responsibility, Museum Development North-West
- Kaye Hardyman, Museum Development North-West
- Hannah Hartley, Environmental Action Manager, Manchester Museum
- Sara Kassam, Climate Champion Trustee, Museum Association
- Sara Harman, Major Projects Programme Manager, Ashmolean
- Angela Schlegel, Learning and Development Manager, Natural History Museum

Stakeholders

Collections and Environmental Conditions stakeholders:

- Anais Aguerre, Bizot Group Secretariat
- Christian Baars, National Museums Liverpool and ICOM UK
- Alistair Brown, Heritage Fund

- Aoife Fannin, Gallery Climate Coalition
- Reyahn King, Touring Exhibitions Group
- Jack Kirby, Science Museum Group and Disposals Project
- Liz Johnson, Arts Council England
- Heath Lowndes, Gallery Climate Coalition
- Michelle Stoddart, ICON and Science Museum Group
- Eloise Stewart, National Portrait Gallery and UKRG
- Melissa Painter, V&A and Bizot Group Green Protocol Refresh
- Sarah Posey, Arts Council England
- Deborah Potter, Tate and Bizot Group Green Protocol Refresh
- Ed Purvis, National Portrait Gallery and NMDC Heads of Collections Management
- Anna Siddall, Arts Council England GIS Review
- Caitlin Southwick, Ki Culture

Additional stakeholders and consultee thanks to:

- Association for Independent Museums
- English Civic Museums Network
- Historic England
- Historic Houses and Places
- Historic Royal Palaces
- Local Government Association
- Museums Association
- National Trust
- Pip Laurenson, University College London
- Visit Britain

Appendix III: Global Call to Put Cultural Heritage, Arts and Creative Sectors at the Heart of Climate Action, Julie's Bicycle

The process to organise this Call to Action campaign was launched on 28 September 2023 during the European Cultural Heritage Summit held in Venice, Italy at the European Heritage Hub Forum "Reimagining the Anthropocene: Putting Culture and Heritage at the Heart of Climate".

A bold but necessary path towards mobilising creative solutions for tackling the climate crisis.

We, the undersigned, ask the national governments who are parties to the UN Framework Convention on Climate Change (UNFCCC) and its Paris Agreement to adopt a 'Joint Work on Culture and Climate Action' decision (JWD) at the COP.

This decision would reflect a commitment from the UNFCCC to begin a consultative process to understand the full contribution of culture - including cultural heritage, arts and the creative sectors - to climate action. The process would examine what culture-led climate responses are already happening, where and by whom; share recommendations for scaling out culture-based solutions; and help ensure that culture is fully integrated into the future work of the Convention.

Culture has unparalleled capacity to enable change.

The world's diverse cultures touch everyone, everywhere; encompassing the full range of voices, perspectives and tools to communicate urgency, mobilise action, and champion sustainable and justice-led ways of living. Through cultural participation, safeguarding, dialogue, experiences, narratives, and stories; and through creative images, events and offerings, culture inspires action, especially when fortified by respect for cultural rights.

Harnessing the power of diverse cultural values and ways of knowing, education and storytelling, art and craft, tangible and intangible heritage, and design and creativity can in turn guide and scale that action to create the systems change needed to tackle the twin climate and biodiversity crises.

Tangible and intangible heritage as well as traditional knowledge enhance resilience and offer time-tested, low-carbon, circular and regenerative technologies and solutions across sectors including the built and natural environment, agriculture, energy, and care for habitats and communities.

Anchored in shared human values of solidarity, care and respect, the collective effort of artists, creative activists, designers, culture and heritage institutions and civil society bringing together both professionals and volunteers, as well as scholars and holders of ancestral wisdom, enlightened policy makers, and communities and audiences, challenge dominant paradigms and offer visions and examples of sustainable futures, freed of reliance on fossil fuels, restoring biodiversity, and championing social justice.

Culture-based climate action promotes local solutions to universal problems, filling gaps in current climate planning through strategies that are inclusive, rights-based, place-specific, demand-side, and people-centred, within a framework that recognises the interdependence of all living things.

Despite insufficient emphasis on the key role of culture in much official climate policy and funding, artistic and heritage voices are on the forefront of work for triple transformation (green, digital, and social), pursuit of 1.5-degree pathways, and systems change. A persistent lack of formal policy recognition, however, undermines the vital contribution of culture and ultimately the effectiveness of global climate action.

A "Joint Work" is a recognised process by which the COP can request the UNFCCC Secretariat and its subsidiary bodies to jointly address a critical, gap issue – in this case the intersections of culture and climate action. It would pave the way to the adoption at a subsequent COP of a landmark work programme putting culture and heritage at the heart of climate policy, planning and action.

Such a future work programme would bolster attention to the socio-cultural enabling conditions for transformative climate action and support more effective mitigation and adaptation. At the same

time, it would address critical issues of loss and damage to culture and heritage already recognised in the Sharm El Sheikh Implementation Plan adopted at COP 27. Last but not least, it would support global efforts to put culture at the heart of climate resilient sustainable development.

Integrating cultural voices into international climate policy will elevate locally-led heritage, artistic and creative approaches that offer scalable solutions to the climate crisis. It will also better support the work of Indigenous Peoples who have long championed a culture of care for Mother Earth. All in all, it would enable the global cultural community, which is rich and diverse, to speak with one clear and united voice thus mobilising the global network of cultural, heritage, artistic and creative advocates, civil society, institutions and public bodies at all levels to support the UNFCCC in its vital mission.

To tackle climate change, we must unlock the transformational power of culture - from arts to heritage - to help people imagine and realise low carbon, climate resilient and just futures.

We the under-signed join the call that delegates to the UN Climate Conference adopt a Joint Work Decision that would finally put the world on the path to recognising culture as an indispensable pillar of a more effective and a more just climate action.

For more information: [Julie's Bicycle website](#)

Appendix IV: UK Museum COP Actions and Recommendations

Action 1

[Ethics subgroup] Make the minor amendments to the statement as discussed.

[NMDC staff] Make the statement public and share with the press (note the above is the final agreed version with amendments).

Action 2

[Heritage subgroup] Discuss feedback on statement from COP.

Action 3

[Heritage subgroup] Take forward actions in two categories:

1. Actions for museums:

- A quantification and understanding of funding needs.
- An understanding of the cost-benefits of investment.
- An end to duplication, all moving forward together.
- Everything undertaken shared with public.
- And none of this at the expense of biodiversity.

2. Collective calls for funding and legislation change:

- A change in legislation and planning guidance now.
- New public funds now.
- New specialist staff in strategic organisations.
- Central coordination of all activity through a new executive role.
- A single reporting structure.

Action 4

[Buro Happold] Produce a full report with completed decarbonisation case studies and costings, to include recommendations for further discussion.

Action 5

[Funders subgroup] Meet again to discuss feedback from COP and agree potential areas for further discussion/action.

Action 6

[Scope 3 subgroup] Continue to meet to work on further ideas for potential action and to share learning and best practice.

Action 7

[Workforce subgroup] Meet again to discuss feedback from UK Museum COP and agree how to take forward the Workforce subgroup recommendations.

Action 8

[NMDC members] Formally endorse the Refreshed Bizot Green Protocol.

Action 9

[NMDC staff] Continue to convene the group and champion the work of sector bodies working towards reducing the impact of collections.

Action 10

[NMDC staff] Report the agreement to sign Julie's Bicycle Global Call to Action and NMDC added as a signatory.

Action 11

[NMDC members and COP attendees]

- *Including wider sector, to be encouraged to sign up to Julie's Bicycle Global Call to Action.*
- *All attendees as individuals to take what has been discussed to implement in their organisations and connect with others at COP who can help.*

Additional actions for NMDC to pursue:

- *Progress the actions and recommendations of COP in collaboration with sector colleagues and NMDC members and develop mechanisms for reporting and holding the sector to account on progress.*
- *Consider further issues to take away for future discussion: environmental costs of digital, adaptation and resilience to climate change beyond mitigation, biodiversity (in more focus) and public engagement.*
- *Work with museums and sector bodies on collections issues.*
- *Work with the sector to further develop a set of asks for an incoming government.*

Recommendations

Scope 3 Subgroup Recommendation

The subgroup recommends that NMDC works with other sector bodies to develop signposting to existing resources for museums, including clear guidance on the most relevant resources for different types of organisations.

Workforce Subgroup Recommendations

Carbon Literacy

- All NMDC members and all COP attendees should undertake Carbon Literacy Training.
- Within the next 12 months, all UK museums should ensure Carbon Literacy Training is undertaken by:
 - two board members
 - 50% of senior leadership teams
 - and if possible 50% of the whole workforce
- There should be more funding for Carbon Literacy Training to enable it to be rolled out across the whole UK museum sector.

Formal Training

- NMDC and sector partners to collectively lobby postgraduate training and apprenticeship providers for environmental and sustainability issues to be included in current training offers.

Mentoring

- Development of a cross-sector mentoring scheme to share knowledge and expertise across the museum sector.

Recruitment

- All museums should adapt their recruitment policies and processes to incorporate sustainable behaviours and actions.

Learning and Development

- All museums should embed sustainability into their Learning and Development programmes.
- NMDC and sector partners to develop a cross-sector open programme of sustainability-focused training in the 2024/25 financial year.

About NMDC

The National Museum Directors' Council (NMDC) represents the leaders of the UK's national collections and major regional museums. Our members are the national and major regional museums in England, Northern Ireland, Scotland and Wales, the British Library, the National Library of Scotland, the National Archives, the British Film Institute and Royal Botanic Gardens Kew. In 2022/23 NMDC's member institutions received 60 million visitors.

NMDC acts as an advocate on behalf of members and their collective priorities and provides them with a valuable forum for discussion and debate and an opportunity to share information and work collaboratively. While our members are funded by government, the NMDC is an independent, non-governmental organisation.

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