Sustaining Great Art

Environmental Report

2015/16

ARTS COUNCIL ENGLAND

Contents

Cover photo: Cornelia Parker's War Room, The Whitworth. Photo © David Levene

Foreword

Arts and culture not only respond to the world around us; they also influence our individual and collective experiences, and shape the direction we take. Through discussion and through our own behaviour, the creative community can help change society for the better. This is the intention of the environmental sustainability programme that Arts Council England runs in collaboration with Julie's Bicycle.

The partnership with Julie's Bicycle goes back to 2007. Together, we have learned how we can support the sector in practical ways and in developing leadership and strategic thinking around sustainability. The Arts Council lays great emphasis on the need to improve the resilience of arts and cultural organisations – on their ability to adapt to environmental, economic, technological and social change, and make the best use of available resources. We see sustainability as being intrinsic to resilience. It's not only environmentally responsible; it makes economic sense.

Our collaboration with Julie's Bicycle is introducing us all to new ways of working. Our funding supports not only the mechanics of compliance – the environmental reporting tools, help and support – but also thought-leadership. We're proud that we were the first cultural funding body in the world to ask our funded organisations to act on their environmental impact. The efforts of arts organisations across England have been an inspiration to the arts globally. This wouldn't have been possible without the goodwill of the sector and the experience and expertise of Julie's Bicycle. It has become a very effective partnership.

This report explores the findings of the environmental sustainability programme from 2015 to 2016. It shows how the sector has moved forward over the programme's first four years. There are increasing levels of engagement and improved environmental performance, leading to significant financial savings. Moreover, the theme of environmental sustainability is producing some inspired creative programming, which speaks to the unique role of the sector.

All this comes at an important point for the international sustainability agenda. Last December, COP21 and the resulting Paris Agreement – a global agreement by 195 countries to maintain global warming below two degrees Celsius – set a precedent for international co-operation.

So it is wonderful to see arts and cultural organisations leading a constructive and progressive conversation about the effects of climate change, raising awareness and showing through their own management how we can find real solutions to the global challenges of sustainability. There is always more to do – and we know that the sector is up for the challenge. People have a deep passion for this. So let's keep up the good work, and show ourselves to be leaders in our organisation, in our sector – and in society.

We all believe that art and culture can make the world a better place; this programme shows how our actions can make a real difference.

Darren Henley OBE, Chief Executive, Arts Council England

Executive summary

On 10 December 2015, almost 200 countries came together and committed to act on climate change. And less than a year later the resulting Paris Agreement[1] came into force with a commitment to limit global temperature rise to below two degrees Celsius. It was a singular demonstration of political consensus that climate change is urgent and must be collectively addressed.

This international agreement is in no small part down to the efforts of communities campaigning and lobbying for a strong framework, including the arts and culture. And success, especially at the political level, is contingent on the ongoing support and pressure of people on governments to maintain a steady flow of political will and investment which will make achieving the targets of the Paris Agreement possible.

Tackling climate change has never been more urgent: at the time of writing it looks likely that 2016 will be the hottest year on record, setting a new high for the third year running. And 16 of the 17 hottest years will have been during this century.

So it is within this context that **Arts Council England's environmental programme has become an internationally recognised demonstration of successful policy and climate action from the cultural sector**.

Begun in 2012, it is part of the Arts Council's 2010-20 strategic goal of resilient, environmentally sustainable arts, museums and libraries. Over this time it has generated the largest data set of cultural environmental impacts in the world, showing a 4.5% average annual reduction in energy use emissions, corresponding to £8.7 million savings on energy.

The first phase (2012-5) established a critical mass of engaged National Portfolio Organisations (NPOs)[2] with common baseline data and environmental policies. It also captured the imagination of many people and new, sustainable arts practices began to take root. In this second phase (2015-8), the programme wants to raise ambition and support leadership, reinforcing national and international climate change targets and building on the great work of many cultural organisations.

1. Reached at the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) in Paris, 2015.

2. Arts Council England's National Portfolio Organisations are regularly funded organisations that play a vital role in helping Arts Council England to meet its mission of great art and culture for everyone. The National Portfolio Organisations in this report include: National Portfolio Organisations, Major Partner Museums, Bridge Organisations and National Youth Music Organisations.

Delivered by Julie's Bicycle, the programme aims to:

Help Arts Council England's NPOs to meet their funding requirements around impact measurement[3] and action-planning

Support and champion the sector's sustainable development

Deepen understanding of the sector's environmental performance

Support the development of Arts Council England's approach to environmental sustainability

Now a year into this phase, we have already seen better policy- and action-planning supporting funding applications; financial savings and innovation; on-site generation and green energy tariffs supporting the clean energy transition, and new networks, partnerships and collaborations strengthening the work of individual organisations as leadership becomes increasingly distributed and diverse. With 98% of current Arts Council England NPOs currently involved with the programme and two-thirds already programming environmentally themed work, a cultural shift which prioritises climate change and sustainability is well under way.

The last 12 months have been critical for climate and for culture. The Sustainable Development Goals[4] together with the Paris Agreement will accelerate the global shift to clean and affordable energy for everyone, celebrate culture and diversity, and encourage sustainable collaboration across sectors, disciplines and countries and at all levels. In this systemic context, the arts have specialist and sorely needed leadership capacities: to influence, through creative expression and participation, to shape new narratives, and to craft cultural values commensurate with the scale of this challenge.

> *"For us sustainability is at the heart of what we do, enshrined in our mission and business plan and embedded in how we think and act."*
>
> *Sian Alexander, Executive Director, Lyric Hammersmith*

3. Measurement of impacts is done through the IG Tools: www.ig-tools.com. Organisations choose from energy, waste, water, materials, business travel, touring travel and accommodation and audience travel. 2015/16 is the first year of a new approach to environmental reporting, where organisations report on impacts most relevant to their specific activities, rather than focusing on energy and water as in the first phase of this programme (2015-8).

4. www.un.org/sustainabledevelopment/sustainable-development-goals

Key findings

The sector continues to reduce its environmental impacts: greenhouse gas emissions from **energy use decreased by 17%** between 2014/15 and 2015/16 despite a growth in cultural activity. Generation of on-site renewable energy also increased by 23% in the same period.

Environmental action is making the sector more resilient including savings of **£5.1 million** during 2015/16 (compared to taking no action) and improved staff wellbeing in 71% of reporting organisations.

The sector is taking action in multiple ways, increasingly engaging audiences and other stakeholders in the process (including through creative programming, sustainable touring and direct campaigning), guided by what is most relevant and meaningful to each organisation. **37% of organisations have produced, programmed or curated work on environmental themes**, with a further 28% planning to do so.

People are working together, with collaborations and partnerships developing across disciplines and expertise, within and beyond the sector, locally and nationally. **45% of reporting organisations found their environmental action plans useful** for developing new partnerships.

The sector's work is having an international impact, with more knowledge-sharing taking place between cultural organisations internationally, and other funding bodies considering new policy inspired by Arts Council England.

98%
of current Arts Council England NPOs are involved in this programme

Conclusion

This report demonstrates the ongoing success of light-touch policy to prompt environmental understanding and meaningful actions that reinforce national and international climate targets. It also has a cultural resonance beyond the technicalities of data and accountability: more engaged than ever before, arts organisations are more literate, more imaginative, more active, more ambitious, and joining the dots across activities, purpose and mission. All of this is contributing to Arts Council England's strategic goal to support sector resilience, demonstrating the inseparability of economic, social, cultural and environmental sustainability. The cultural dimensions of the climate crisis are central to our understanding of the solutions. This programme has already demonstrated a powerful practice of change: real, practical actions which are igniting our creative moral imagination.

Nothing less than that.

Programme and response 2015/16

Above: Alvin Ailey American Dance Theater in Alvin Ailey's Night Creature. Photo: © Alvin Ailey American Dance Theater / Gert-Krautbauer

What Julie's Bicycle did...

19

Nineteen **case studies**

Two **fact sheets:**

Green Electricity

Commuting Survey Template

A contribution to the Arts & Humanities Research Council's **Cultural Value Project report 2016**

150

delegates

An international symposium of 150 delegates at **ArtCOP21**, the biggest arts advocacy event at the United Nations international climate negotiations in Paris in December 2015

970

Thirty **events**, **webinars** and **live chats** with 970 attendees including a major national conference **How to be a COPtimist – Culture, Creativity and COP21'**

Funding Watch: a new online listing of environmental funding sources

Online reporting tools, helpdesk support and sector benchmarks

18

Eighteen **blogs**

5

Five **videos**

12

Twelve **podcasts**

Seven practical guides:

1. **Fit for the Future: Investing in Environmentally Sustainable Buildings**
2. **Communicating Sustainability**
3. **Team Engagement**
4. **Water Management for Buildings**
5. **Waste Management in Buildings**
6. **Business Travel, Commuting and Delivery Services**
7. **Audience Travel**

Engagement is higher than it's ever been…

98%

98% of 685 Arts Council England NPOs were involved with the programme at the end of 2015/16. These include 51 new organisations required to report from 2015. This is compared to 90% of organisations at the end of the first year of the programme, 2012/13.

30% increase

80% provided an environmental policy compared to 50% in 2014/15.

6% increase

75% provided an environmental action plan compared to 69% in 2014/15.

1% decrease

97% of organisations **registered on the online reporting tools**, the Creative IG Tools, compared to 98% in 2014/15 and 87% in 2012/13.

8% increase

88% consider themselves engaged in environmental sustainability, compared to 80% in 2014/15 and 48% in 2012/13.

4% decrease

88% reported on their environmental impacts compared to 92% in 2014/15:

54% met all reporting requirements outlined in their funding agreement.

20% exceeded reporting requirements.

14% were unable to meet reporting requirements but provided reasons for this.

Left: Tree of Codes, MIF15. Photo: Ravi Deepres

…and participants value the programme

4%
increase

88% think reporting makes a positive difference to the sector compared to 84% in 2014/15.

7%
increase

82% think reporting makes a positive difference to their organisation compared to 75% in 2014/15.

81%

81% agree that reporting requirements have helped them understand their impacts.

Below: Man Made Youth Company. Photo: © Man Made Youth Company / Donata Kukyte

Key findings

Methodology

The findings in this report were drawn from several sources:

- Environmental reporting on the Creative IG Tools from 538 Arts Council England NPOs.
- Evaluation survey to which 206 (30%) of NPOs and MPMs (Major Partner Museums) responded.
- Case studies of individual organisations demonstrating best practice.

For the methodology analysis, see **Appendix 1.**

Above: The Last Adventures, Forced Entertainment. Photo: Hugo Glendinning

1. The sector continues to reduce its environmental impacts

The continued reduction of environmental impacts across the arts demonstrates that the cultural sector is making a tangible – material – difference. These findings demonstrate that with the right tools and support, the cultural sector is making great progress.

Right: Hollow by Katie Paterson and Zeller & Moye. Courtesy University of Bristol and Situations. Photo: © Max McClure

Overall, greenhouse gas emissions are reducing.

Annual greenhouse gas emissions dropped by 10% to 92,200 tonnes CO_2e in 2015/16 from 2012/13[5], despite an increase in the number of organisations reporting, reporting on a broader range of impacts[6], and an increase in cultural activity.

2012/13

2015/16

10% drop

Action-planning is driving continual improvement.

93% reporting organisations found action plans useful in managing and reducing impacts compared to 92% in 2014/15.

93%

Energy use is the sector's biggest environmental impact, and it reduced significantly in 2015/16.

Energy represented 95% of the sector's environmental impacts in 2015/16[7]. Energy use decreased by 15% between 2014/15 and 2015/16, corresponding to a drop of 17% in emissions-related energy use.

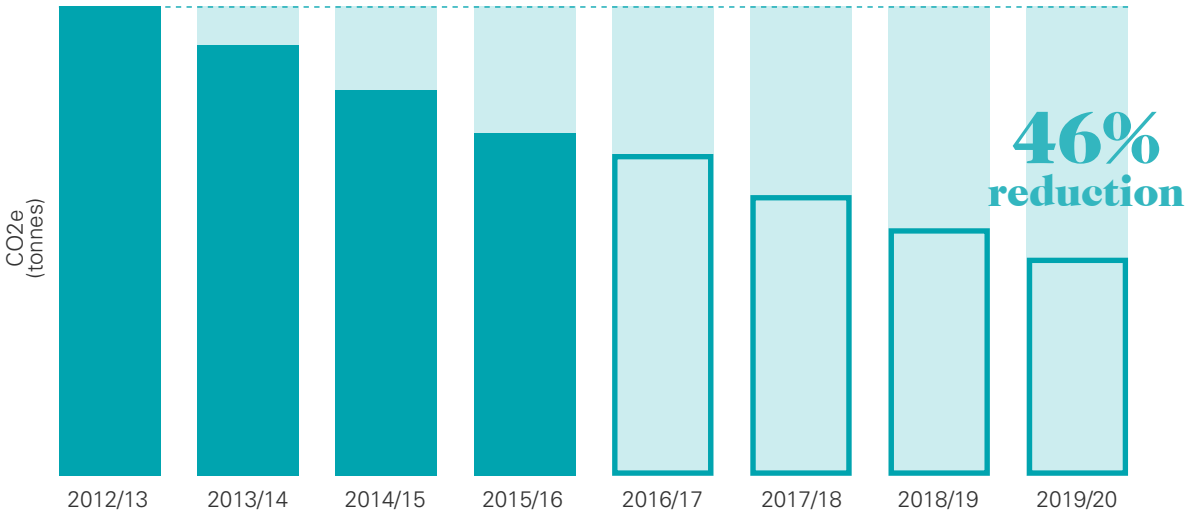
2014/15

2015/16

17% drop

A total of 26,900 tonnes CO_2e emissions from energy use have been avoided since 2012.

If this rate of reduction continues, 2019/20 emissions would be 46% lower than in 2012/13, **a combined cumulative saving of 160,900 tonnes CO_2e.**



These carbon reductions have also contributed to significant financial savings, detailed in **section 2.**

5. The first year of Arts Council England's environmental reporting initiative. The overall 10% reduction was achieved despite fluctuations in emissions between individual years, notably a 9% increase between 2013/14 and 2014/15 and a 17% decrease between 2014/15 and 2015/16. These fluctuations are due mainly to changes in the carbon intensity of the UK grid energy supply which increased by 11% between 2013/14 and 2014/15 and decreased by 7% between 2014/15 and 2015/16.
6. This year, Julie's Bicycle revised the methodology for calculating emissions and cost savings. For further information on the methodology, see Appendix 1 and for more detailed results, see Appendix 2.
7. Other impacts such as business travel were under-reported in comparison. From previous research we know that audience travel is a significant environmental impact. It has not been included in this reporting initiative because it is not directly under the organisations' control.

Case study

Established in 2011, the **London Theatre Consortium** adopted the Mayor of London's 2007 climate strategy target of reducing emissions by 60% by 2025[8]. As not-for-profit theatres with little money to invest in new buildings, they focused their efforts on reducing energy-use emissions. In 2015/16 a five-year review by Julie's Bicycle demonstrated that their collective actions had reduced energy emissions by 15%, saved £265,000 on energy bills, and put them well on the way to achieving London's 60% reduction target and targets set under the UK's Climate Change Act.

> *"Peer support and knowledge exchange have had a phenomenal impact as we recognise that, if we help each other with the questions, we can come up with far more creative solutions."*
>
> *Emma Rees, Director, London Theatre Consortium*

Below: Royal Court. Photo: Helen Murray

8. London Climate Change Action Plan 2007. http://news.bbc.co.uk/1/hi/england/london/6399639.stm

A shift to renewable energy is under way.

23% increase

On-site renewable energy generation increased by 23% between 2014/15 and 2015/16 and has tripled since 2012/13.

14%

14% of 2015/16 electricity use was on **green tariff** or renewable energy supply contracts.

Case study

Tate Modern's new extension uses a range of low- and zero-carbon energy technologies. One of the most visible sustainability features is an array of solar photovoltaic panels on the roof of the Boiler House. The solar panels helped Tate facilitate a new sponsorship relationship with Solarcentury.

Get to grips with green energy procurement

- **Read the Green Electricity factsheet**
- **Catch up on the webinar in partnership with Good Energy**

Top right: Turbine festival 2015
Photo: © Tate / Diana Agunbiade-Kolawole

2. Environmental action is making the sector more resilient

The environmental programme forms part of Arts Council England's 2010-20 strategic goal of resilient, environmentally sustainable arts, museums and libraries. While this report focuses on environmental sustainability, it demonstrates that environmental action is delivering against other aspects of organisational resilience too. Economic, social, cultural and environmental sustainability are deeply connected and mutually reinforce a resilient arts community.

Over time, environmental action is saving the sector millions of pounds and has the potential to save much more.

56%
of organisations reported financial benefits in 2015/16 compared to 51% in 2014/15.

A **4.5%** average annual reduction in energy use emissions has saved

£5.1 million
in energy costs in 2015/16, and...

£8.7 million
since 2012/13, the first year of Arts Council England's programme.

If this rate of reduction continues, 2019/20 emissions would be **46%** lower than in 2012/13, a combined cumulative saving of 160,900 tonnes CO_2e and **£54 million** over eight years.

Above: Switching the town centre Christmas lights on at Experience Barnsley. Photo: © Barnsley Museums
Left: 2015 FutureEverything / FutureEverything Singapore

Investing in environmentally sustainable buildings

By aligning its £243 million capital grants programme with its goal of resilience and environmental sustainability between 2012-5, and including environmental reporting in the funding process, Arts Council England has been a major driver for green capital improvements. In 2015 alongside a programme of activities, Julie's Bicycle published Fit for the Future: Investing in Environmentally Sustainable Buildings. The programme provided guidance on how to maximise environmental outcomes during the design and implementation of capital projects.

The guide includes case studies of eight capital projects, representing a total investment of £176 million, £55.5 million of which was funded through Arts Council England.

Since publishing the guide, Julie's Bicycle has started to assess the impact of a number of individual Arts Council England-funded projects. There is a clear growing demand among organisations now planning investments to build environmental sustainability into their capital projects.

- **Read Fit for the Future: Investing in Environmentally Sustainable Buildings**
- **Watch the webinar**
- **Catch up on the Fit for the Future conference**
- **Find funding on Funding Watch**

Case study

When **Nottingham Playhouse** embarked on a £1.9 million development to improve their building, it received £1 million from Arts Council England's Capital: Large Grants programme. To make up the remaining £0.9 million cost, it had originally planned to borrow money from commercial lenders with borrowing costs of £38,000. However the city council, which owns the building, provided a £230,000 loan towards improving energy efficiency, costing just £469 in interest, and waived rent on the building for 13 years. The work was completed in Summer 2015.

Building improvements included double glazing, insulation, energy-efficient lighting, solar panels and a zoned Building Management System. An audit carried out by Julie's Bicycle in 2016 comparing the building before (2012) and after (2015) the investment, showed that it had reduced energy use by 30%, emissions by 145 tonnes CO_2e and energy costs by £19,000.

Left: Le Patin Libre at Somerset House. Photo: Dance Umbrella 2015
Below: Sage Gateshead. Photo: © David Tiernan / The Sage Gateshead

Renewable and low-carbon energy supply is reducing dependence on the national grid and investing in the long term.

Larger organisations are decreasing dependence on grid energy supply by investing in low- and zero-carbon on-site energy generation and supporting lower carbon district energy schemes.

Case studies

Somerset House Trust has upgraded its energy systems to support its expansion and maintain its historic building. To minimise cost and risk it turned to Energy Performance Contracting (EPC). This involved an energy services company designing the new systems while guaranteeing energy performance and annual savings of £235,000, which Somerset House used to pay back the initial investment. Since 2015, two high-efficiency gas boilers and a gas-fired combined heat and power (CHP) plant are its primary source of heat and electricity. The CHP plant uses waste heat created during power generation to heat the building, and can run independently in the event of a power failure.

Sage Gateshead is part of Gateshead Council's Town Centre District Energy Scheme, a gas-fired combined heat and power energy centre which will generate electricity while capturing and supplying waste heat to buildings. The process is twice as efficient as conventional power stations, producing just half the greenhouse gas emissions that would come from drawing the same supply from the grid. Construction of the centre is due to finish in 2016, and the scheme could reduce heating costs by over 7% and electricity costs by 4%.

Environmental action plans and policies are supporting business development

63% use environmental data to inform planning and decision-making.

75% found policies useful in supporting funding applications compared to 70% in 2014/15.

45% found action plans useful to new partnerships and collaborations. For more insight into how working together is supporting environmental action and innovation, **see section 4**.

Environmental action is having a positive impact on staff wellbeing

71% reported team morale benefits compared to 67% in 2014/15.

Going green is demonstrating positive values to audiences and stakeholders

38% reported reputational benefits compared to 43% in 2014/15.

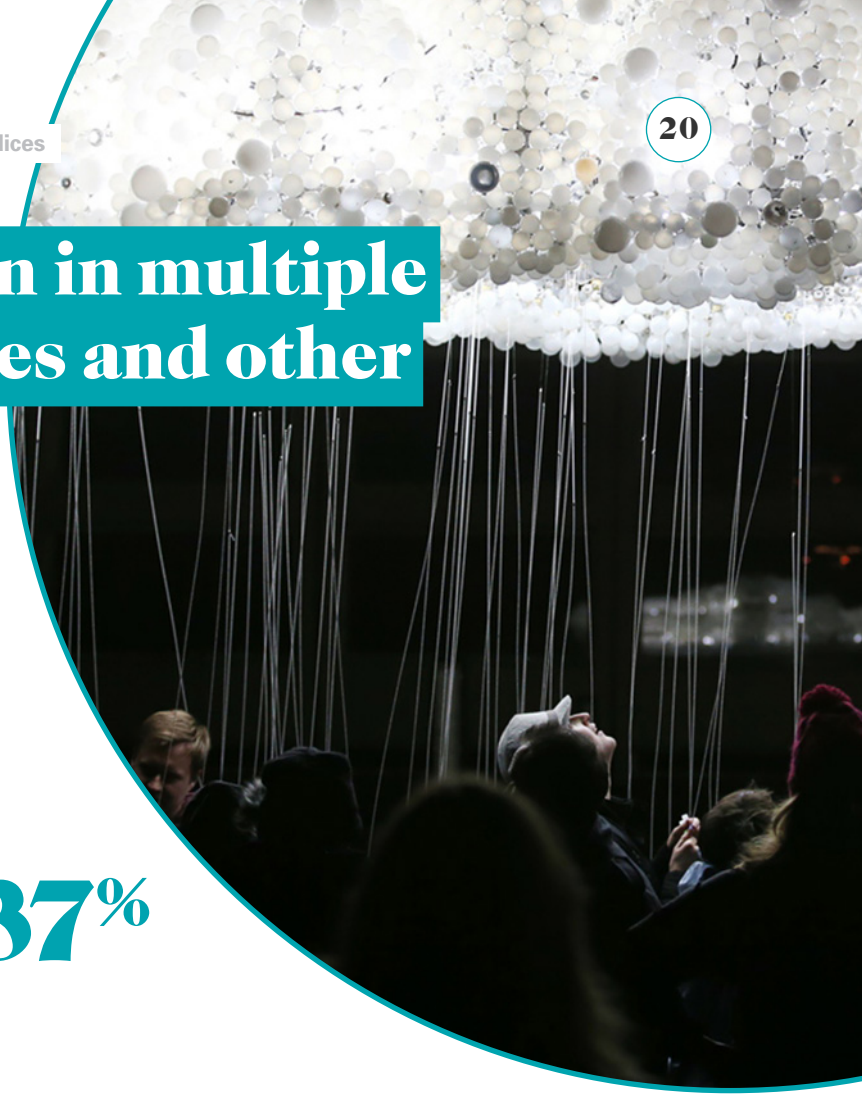
Top right: Revelations by Alvin Ailey. Photo © Alvin Ailey American Dance Theater / Christopher Duggan

To help the arts community celebrate their successes, Julie's Bicycle produced a number of resources on communicating sustainability in 2015/16 including best practice case studies.

Read the Communicating Sustainability Guide

Catch up on the webinar

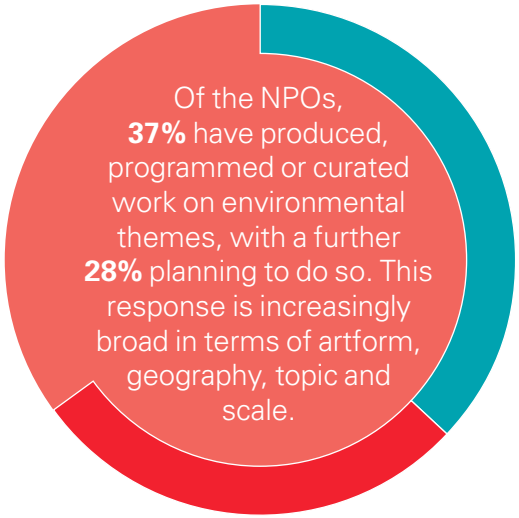
3. The cultural sector is taking action in multiple ways, increasingly engaging audiences and other stakeholders in the process



From sustainable production to direct campaigning, environmental action comes in many different guises.

Arts Council England's environmental programme provides a critical supporting framework with themes including capital investment, communicating sustainability, creating resilient museums, sustainable collections management, building water management, touring, sustainable production, artistic practice, team and stakeholder engagement, global climate negotiations, cultural value and environmental sustainability.

The sector is articulating a creative response to environmental sustainability and climate change on a level not previously seen.

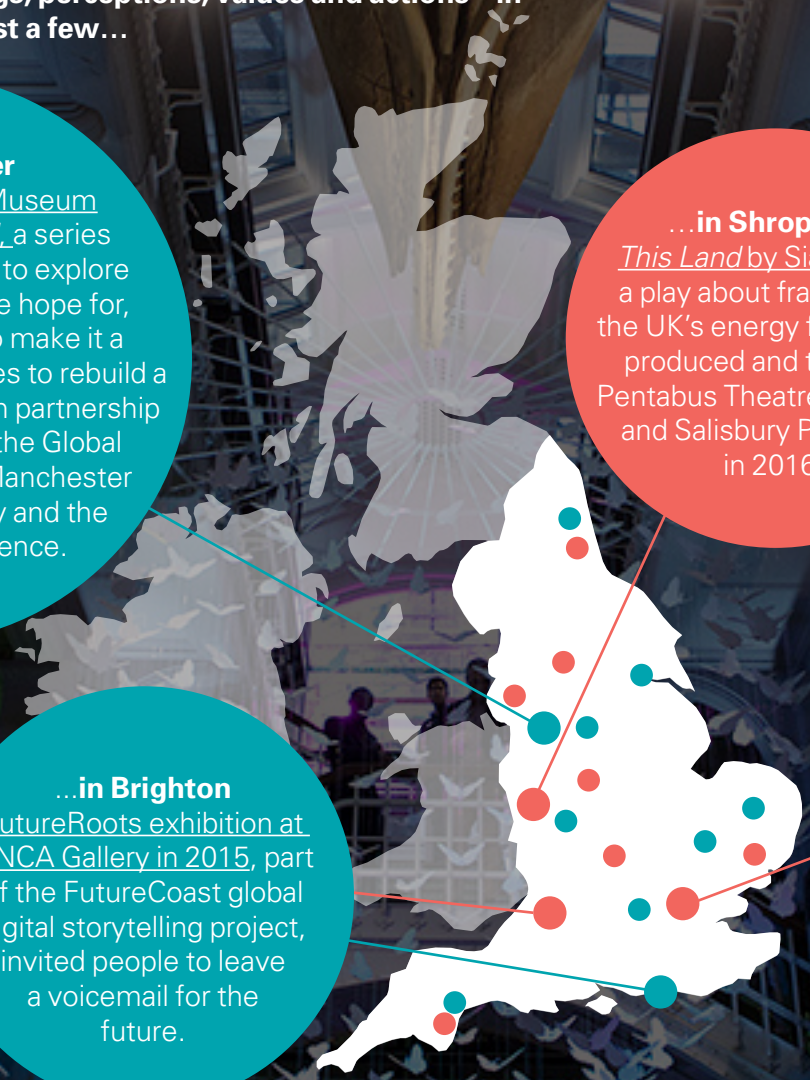


37%

28%

Top right: Lumiere. Photo: Lee Dobson
Bottom left: Kala Utsav, Kala Sangam. Photo: Brian Slater

Across the country, a significant number of organisations are programming work on environmental themes, engaging more people and exploring the different dimensions of climate change – feelings, perceptions, values and actions – in increasingly diverse ways. Here are just a few…



…in Manchester
in 2016, Manchester Museum curated *Climate Control*, a series of exhibitions and events to explore what kind of future people hope for, and what it would take to make it a reality, including opportunities to rebuild a model Manchester. It was in partnership with the Tyndall Centre, the Global Development Institute, Manchester Climate Change Agency and the European City of Science.

…in Shropshire
This Land by Siân Owen, a play about fracking and the UK's energy future, was produced and toured by Pentabus Theatre Company and Salisbury Playhouse in 2016.

…nationwide
Cape Farewell produced ArtCop21, a festival of culture and climate change, in partnership with Paris-based organisation COAL, which aggregated over 500 cultural events focused on climate change worldwide (76 events across England) to give voice and visibility to the cultural movement around the Paris COP21 climate talks in December 2015.

…in Bristol
Deep Above, a film about climate change by Adam Chodzko, supported by Invisible Dust, was launched at the Watershed in 2015.

…in Brighton
FutureRoots exhibition at ONCA Gallery in 2015, part of the FutureCoast global digital storytelling project, invited people to leave a voicemail for the future.

…in London
Artsadmin's 2 Degrees Festival of art and climate change in June 2015 at Toynbee Studios and around East London attracted 3,000 people to performances, installations, workshops and talks, including Brett Bloom's Petro-subjectivity, the Laboratory of Insurrectionary Imagination, Climate Action Speed Dating, Dark Mountain, Capitalism Works for Me! and TREExOFFICE.

Above: Climate Control Exhibition, Manchester Museum. Image © Paul Cliff

Above right: The Environmentalists, Young Everyman Playhouse. Photo: Brian Roberts
Below left: Warsan Shire performs at Free Word Centre

Cultural expression on climate change has the potential to shift values and perceptions.

Julie's Bicycle ran a Cultural Value and Environmental Sustainability dialogue in partnership with the **Arts & Humanities Research Council** (AHRC), which aimed to explore the ways in which cultural work is influencing values and behaviours around climate change, and identify opportunities for further research. The day, held in October 2015, provided insights for the AHRC's research publication Understanding the Value of Arts & Culture: The AHRC Cultural Value Project (2016).

Content and method are increasingly coming together, sending a powerful message about the ethics and commitment of artists and cultural organisations.

> *"Choosing personally to take sustainability into my practice has made me a better designer."*
>
> *Paule Constable, Tony and Laurence Olivier Award-winning Lighting Designer*

Case studies

Young Everyman Playhouse (YEP)'s 2016 production of *The Environmentalists* explored climate change in content and production, and took place in Liverpool Everyman's award-winning sustainable building, using LED lighting and reused/recycled set and costumes. Audience members were encouraged to walk, cycle and use public transport to travel to the theatre. The production included 'offsetting' through environmental pledges and actions by staff members and their families for the week of the show. YEP now plans to do this with all its productions.

Free Word is Europe's only centre for literature, literacy and free expression. It's home to a vibrant community of resident and associate organisations whose work includes creative writing and campaigning. Free Word has been taking practical environmental action, reducing energy use and engaging with employees and visitors in the process. Living Dangerously: Stories of Climate Change is one of its current programming themes. From spoken word competitions to conferences bringing writers and scientists together, it puts the imagination of storytellers at the heart of urgent conversations about climate change. Other works have looked at themes of global citizenship, food and feminism.

Case studies

Innovations in sustainable production and touring are being tested across the sector, with small organisations often able to adapt and share learning faster than larger organisations.

Sage Gateshead is developing a new touring model as a part of the 2015-6 green touring initiative Take the Green Train. Funded by Creative Europe and run by Europe Jazz Network and Julie's Bicycle, the project looked at the sustainability of events organised for the jazz and music community including a train tour of Europe witn Evan Parker. Sage Gateshead developed a 'green rider' for incoming artists as part of flagship events like the Gateshead International Jazz Festival. The venue also secured headline sponsorship for the festival from local cycling shop Team Cycles.

The **Paraíso School of Samba** invested £19,000 in an electric tug to accompany its three hand-pushed floats and an electric truck to carry the sound system, thus avoiding air and sound pollution, as well as the emissions generated by traditional tugs. It is also resourceful with materials, recycling everything until it falls apart, and repurposing fabrics into new costumes and float décor each year. Its approach has already given groups like Emergency Exit Arts and Shademakers the inspiration to use similarly sustainable tugs and floats. Some festivals have even begun to specify electric vehicles as their use becomes more established.

Left: Sage Gateshead.
Photo: Mark Savage

The sector is rethinking ethical funding in the context of fossil fuel investments and sponsorship.

Organisations including **Live Art Development Agency**, **Artsadmin**, **Home Live Art** and **Platform** have produced guidelines, hosted conversations and campaigned on ethical and fossil fuel-free funding and sponsorship. These initiatives, combined with campaigns such as **Fossil Funds Free**, to which 306 arts and cultural professionals have already signed up, are changing attitudes and perspective around sources of funding in the context of climate change and environmental degradation.

Increasingly organisations are stepping up to take leadership roles within the sector and beyond.

Twenty-four NPOs[9] have committed to a leadership role on environmental sustainability in their Arts Council England funding agreements, and are taking action on a range of issues, from connecting with the natural environment to exploring climate change in their creative work. They include award-winning sustainable venues like **Whitworth Art Gallery** and **Liverpool Everyman**; **Live Art Development Agency**, who have led conversations on ethical funding for the sector; **Contact Theatre**, who are championing the role of young people in creative climate leadership; **Chrysalis Arts**, who developed the first Public Art Sustainability Assessment, and **Ironbridge Gorge Museum Trust**, who aim to make their UNESCO World Heritage Site the greenest in the world.

Above: Cornelia Parker's Cold Dark Matter, The Whitworth. Photo © David Levene

9. Artsadmin, Barbican Centre, Battersea Arts Centre, Blast Theory, Bow Arts, Chrysalis Arts Development, Contact Theatre, Free Word, Glyndebourne, In Between Time , Ironbridge Gorge Museum Trust, Live Art Development Agency, Liverpool Everyman, London International Festival of Theatre (LIFT), Manchester Partnership Major Partner Museum, National Theatre, Orchestras Live, Pentabus, Performances Birmingham Ltd, Sage Gateshead, Seven Stories, Siobhan Davies Dance, Tobacco Factory Theatres, Young Vic.

4. People are increasingly working together to address environmental issues

More organisations have been coming together to share resources, knowledge and solutions.

Policymakers, public bodies, businesses and other communities have begun taking note of the sector's collective potential, and increasingly these collaborations are being developed with civic bodies, charities and other stakeholders beyond the cultural sector.

Industry networks and associations have formed, such as the What Next? climate change sub-group, ongoing regional networks like the London Theatre Consortium and Manchester Arts Sustainability Team, and sector initiatives such as the Sustainability in Production Alliance and the festival sector's Powerful Thinking network.

45%
of reporting organisations are using their environmental policies and action plans to build new partnerships and collaborations.

Right: Peterborough Environment City Trust cycle-powered main stage at The Green Festival 2015. Photo: Chris Avery

Below: Tobacco Factory Theatres, Bristol

Case studies

When Bristol's **Tobacco Factory Theatres** installed solar photovoltaic panels in 2011, it was the second largest solar installation on a cultural building in the country. The panels generate the equivalent of one third of the organisation's electricity and, between 2011-5, generated enough to power 32 homes for a year, avoiding 61.5 tonnes CO_2e. In 2015 it went one better, partnering with Good Energy to supply the theatre with electricity from 100% renewables.

> *"Our relationship with Good Energy is about more than just supply. In 2015 we promoted them to our audiences and encouraged more people to make the switch to renewable energy, advertising a £40 ticket voucher to those who made the switch to their 100% renewably sourced electricity."*
>
> *David Dewhurst, Operations Director, Tobacco Factory Theatres*

Manchester Arts Sustainability Team (MAST) is a network of cultural organisations collaborating on a city-wide cultural response to sustainability. It has become one of the city's most successful examples of environmental improvement and civic engagement on climate change – from achieving emissions reductions in line with city targets and engaging with audiences on climate change, to actively supporting the work of the Manchester Climate Change Agency and the development of the city's sustainability strategy Manchester: A Certain Future.

> *"The cultural community of Manchester must continue to play their strong role in defining the future of this city."*
>
> *Simon Curtis, MAST chair and Head of Production, Royal Exchange Theatre*

Contact Theatre (a MAST member) partnered with Transport for Greater Manchester (TfGM) to support its work on sustainable staff travel. Activities include a digital toolkit, a trial of TfGM's free loan bike scheme and the funding for an all-electric van. As a member of MAST, Contact has supported the city's carbon literacy programme, and explored environmental issues by taking part in national events like Our City, Our Planet and staging performances such as *Climate of Fear*.

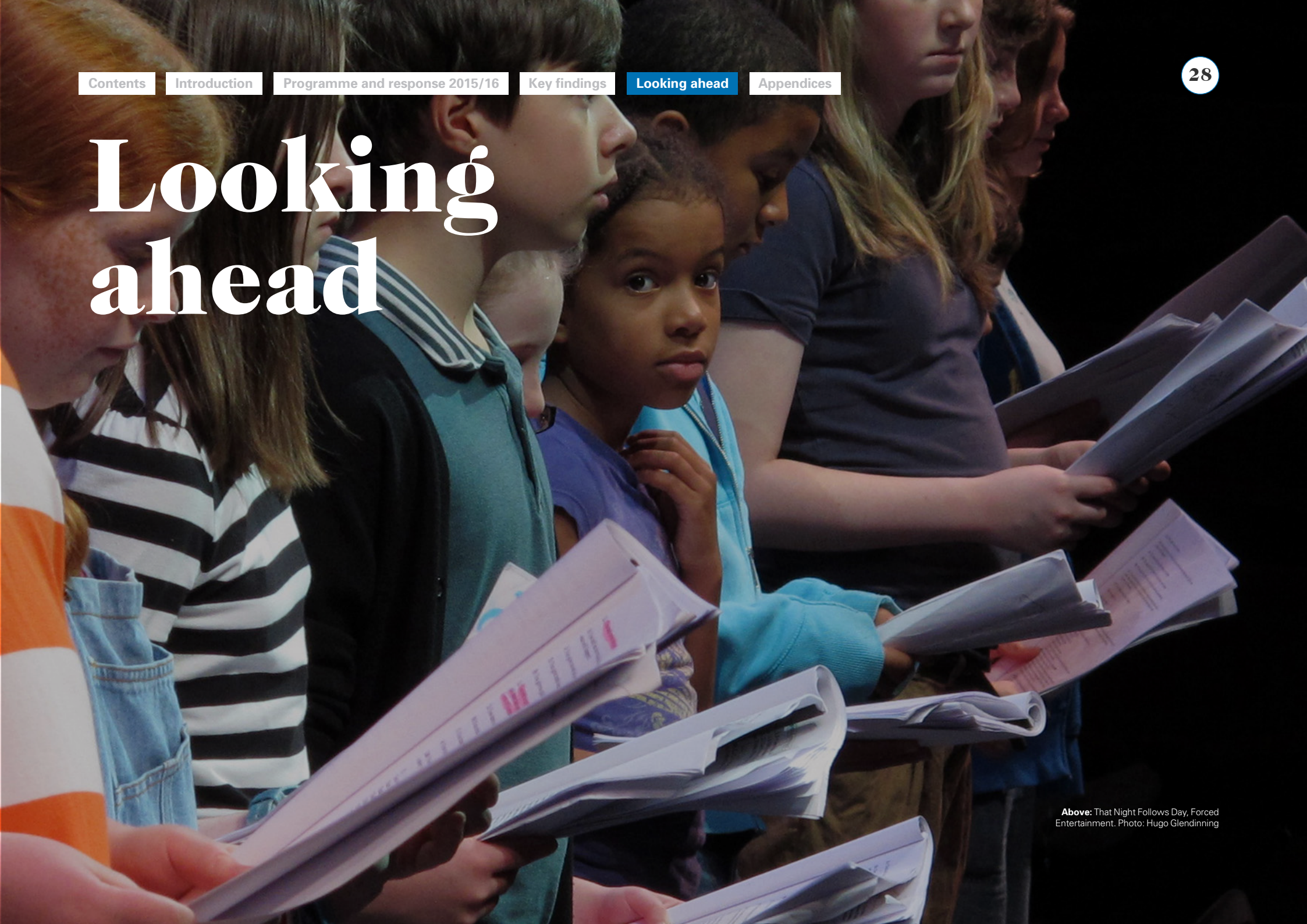
5. The sector's work is having an international impact

This programme is internationally recognised as an outstanding example of successful, light-touch policymaking. For the third consecutive conference (2012, 2014, 2016) it has been profiled at the International Federation of Arts Councils and Culture Agencies. Arts Council England presented at the ArtCOP21 professional workshop in December 2015 to 150 cultural policymakers, funding bodies, networks, organisations and artists.

International interest in this work has continued to prompt a broad range of responses. Many have been creating and collaborating on solutions with international partners. Several European Union (EU)-funded projects and networks are sharing learning, including Imagine 2020 (LIFT and Artsadmin), Take the Green Train (Europe Jazz Network), EE Music Culture and Green Art Lab Alliance (Julie's Bicycle). The leadership of UK-based organisations has been a driving force behind many of these initiatives. Cape Farewell, Tipping Point, Platform, Julie's Bicycle and others are pioneers of a global movement which puts the arts and culture at the heart of change.

This activity recognises that climate change is a shared global issue, and Arts Council England, with Julie's Bicycle, is contributing to a growing international dialogue about culture and cultural policymaking as drivers of sustainability.

Looking ahead



Above: That Night Follows Day, Forced Entertainment. Photo: Hugo Glendinning

Programme recommendations

In line with the 2015-8 aims of the programme, Julie's Bicycle will be:

1. Supporting Arts Council England NPOs to meet their funding requirements

We will continue to support environmental impact measurement and the development of meaningful policies and action plans, taking into consideration the diversity of size, type and activity of each organisation.

2. Supporting and championing the sector's sustainable development

We will continue to build momentum on energy-saving and efficiency, switching to clean energy and ethical finance for the creative sector.

We'll build partnerships and collaborations, enrich and support those that exist, and connect the dots between the sector and emerging sustainable suppliers.

3. Deepening understanding of the sector's environmental performance through benchmarking, research and evaluation

We'll deepen our understanding of the role of capital investment in environmental sustainability. We'll use these insights to inform investment planning and evaluation processes, and share them with other funding bodies.

We'll meet the demand for environmental knowledge and support for those planning capital investments.

We'll support the sector and organisations in learning what's needed to meet the targets under the UK Climate Change Act and global aim of limiting warming to two degrees Celsius under the Paris Agreement. We'll also develop ways to achieve it.

4. Developing Arts Council England's approach to environmental sustainability at operational, planning and policy development levels

We'll share what has been learnt, encouraging the connection between taking environmental action and inspiring cultural shifts. We'll share the value of the sector's action and leadership on climate change:

- internally within Arts Council England
- with other funding organisations, local authorities and policymakers, and
- with the broader arts and creative sector.

We'll take our lead from the creative movement at the UN climate talks in Paris, COP21, and put the cultural community at the heart of climate action at the highest levels of policymaking.

What can the sector do?

Taking inspiration from the insights above, here are our recommendations for you:

1. Be the biggest change

Establish more in-depth and regular impact monitoring and measurement to inform more timely and targeted action.

Focus on where you can make the most impact, for example energy management, investment, divestment, business travel, touring transport, programming, and artist or community engagement.

2. Put environment at the heart of your work

Reflect and embed your environmental values throughout your business strategy, planning and decision-making, and embed environmental sustainability at the heart of your creative practice.

3. Use less energy and use clean energy

Prioritise absolute energy use reductions and shift to clean energy.

Refer to the Fit for the Future guide for guidance and examples on putting environmental sustainability into capital projects.

Fit for the Future ▶

Search Funding Watch for funding opportunities.

Funding Watch ▶

Read the Green Electricity factsheet to get a better understanding of green options available and questions to ask when choosing your energy supplier.

Green Electricity Factsheet ▶

Use our Communicating Sustainability guide to inform thinking.

Communicating Sustainability Guide ▶

4. Communicate your environmental commitments and achievements more widely

Make environmental issues inspiring, empowering and relevant personally and locally by tailoring environmental communications to fit with your brand and identity.

Engage with peers, audiences, artists, communities and funders to shape and share your stories.

Continue sharing stories of creativity, optimism, action and best practice with peers across disciplines to scale up solutions and encourage the conditions for creative thinking.

Already doing any of these? Let us know. We want to help tell your story, and share your learnings and leadership with the sector.

About Julie's Bicycle

Julie's Bicycle is a London-based charity that supports the creative community to act on climate change and environmental sustainability. We believe that the creative community is uniquely placed to transform the conversation around climate change and translate it into action.

We provide the creative community with the skills to act, using their creativity to influence one another, audiences and the wider movement. We run a rich programme of events, free resources and public speaking engagements, which contribute to national and international climate change policy development.

Julie's Bicycle supports the Paris Agreement goal to limit global warming to well below two degrees Celsius by focusing on energy, the major source of carbon emissions for the cultural sector. More than 2,000 companies use the Creative IG Tools, our suite of carbon calculators, and our certification scheme, Creative Green, is the recognised benchmark for sustainability achievement within the creative industries.

We have a deep engagement with the arts and cultural sector, working with organisations and independent professionals across the UK and internationally to embed environmental sustainability into their operations, creative work and business practice.

www.juliesbicycle.com

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Appendix 1.

Methodology

Greenhouse gas (GHG) emissions are a measure of climate change impact. Different activities release different GHGs, for example burning coal to generate electricity releases carbon dioxide (CO_2), landfill waste releases methane. Each GHG has a different global warming potential, for example methane's is 20 times greater than CO_2 per unit of gas. Carbon dioxide equivalent (CO_2e) is used to express the climate impacts of an activity in a single measure. CO_2e emissions are calculated by applying carbon conversion factors, published annually by the government, for example kg CO_2e per kilowatt hour (kWh) of electricity used or tonne of landfill waste. The conversion factors for UK grid energy reflect its carbon intensity, or the amount of CO_2e emissions generated depending on the mix of fossil fuels, renewables and nuclear energy used.

The methodology used by Julie's Bicycle to calculate greenhouse gas emissions and energy costs for 2015/16 reporting has undergone a number of changes since 2014/15. The table below compares the 2015/16 with the 2014/15 methodology and results. Detailed data analysis results, including the impact of changes in grid carbon intensity, is provided in **Appendix 2**.

	Current Methodology applied across 2012/13-2015 data and reporting	Results 2012/13-2015/16	Previous methodology applied across 2012/13-2014/15 data and reporting	Results 2012/13-2014/15
Carbon conversion factors	Conversion factors of the year in question applied to data of the year in question. This means the carbon intensity of the UK grid energy supply influences the level of emissions reductions achieved and results represent what was achieved on both the supply and demand side to reduce emissions.		2014/15 conversion factors applied across all years of data. This means that results show what was achieved on the demand slide to reduce emissions	
Average energy tariffs	11p per kWh electricity and 3p per kWh gas		11p per kWh electricity and 3p per kWh gas	
Baseline year	2012/13		2012/13	
Annual emissions and emissions reductions against the baseline year	Based on all impacts reported on under new 2015 2018 reporting requirements i.e. energy, water, waste, travel and production. Covering the whole reporting group - each year the group's composition changed and number of reporting organisations increased.	Emisions reduction = 10,600 tonnes CO_2e over 4 years	No comparable analysis	No comparable results
	Based on energy and water impacts - the most consistently reported impacts since 2012/13. Covering the whole reporting group Net savings i.e. savings made overall taking both increases and decreases into account.	Emissions reduction = 13,700 tonnes CO_2e over 4 years Annual average emissions reduction = 4.5%	Based on energy and water impacts. Covering only organisations which had provided this data for at least two years i.e. 2012/13-2013/14-2014/15. Net savings i.e. savings made overall taking both increases and decreses into account	Emissions reduction = 12,700 tonnes CO_2e over 3 years Annual average emissions reduction = 5%
Energy cost-savings	Applying average electricity and gas tariffs to net savings in electricity and gas use - kWh	Energy cost savings = £2.9m over 4 years	Applying average electricity and gas tariffs to net savings in electricity and gas use - kWh	Energy cost savings = £2.3m over 3 years
Energy use emissions avoided	Business as Usual energy use emissions over 4 years i.e. 2012/13 emission remaining constant each year MINUS Energy use emissions over 4 years applying a 4.5% year-on-year saving from the 2012/13 baseline Assuming grid carbon intensity remained constant i.e. applying 2012/13 conversion factors each year	Emissions avoided = 26,900 tonnes CO_2e over 4 years	No comparable analysis	No comparable results
Energy costs avoided	Business as Usual energy use costs over 4 years i.e. 2012/13 energy costs remaining constant each year MINUS Energy use costs over 4 years applying a 4.5% year-onyear saving from the 2012/13 baseline. Applying average electricity and gas tariffs to 2012/13 electricity and gas use - kWh	Avoided energy costs = £8.7m over 4 years	No comparable analysis	No comparable results

Appendix 2.

Data analysis results

2.1 Total emissions

Table 1. Total emissions by source of impact 2012/13-2015/16

	tonnes CO_2e			
Source of impact	2012/13	2013/14	2014/15	2015/16
Electricity	74,168	74,858	79,595	63,882
Gas	25,534	22,818	27,018	22,331
Oil and diesel	186	69	80	511
Water	774	775	730	557
Waste	1,243	1,279	1,706	2,558
Touring travel	242	664	707	581
Business travel	643	932	784	1,765
Materials	26	14	25	54
Total	**102,816**	**101,409**	**110,645**	**92,238**
Organisations	469	474	481	538
2015/16 vs. 2012/13 change tonnes CO_2		**-10,578**		
2015/16 vs. 2012/13 change %		**-10%**		
Year on year change tonnes CO_2		**-1,407**	**9,236**	**-18,407**
Year on year change %		**-1%**	**9%**	**-17%**

2.2 Energy and water emissions

Table 2. Energy and water emissions 2012/13-2015/16

	tonnes CO_2e			
Source of impact	2012/13	2013/14	2014/15	2015/16
Electricity	74,168	74,858	79,595	63,882
Gas	25,534	22,818	27,018	22,331
Water	774	775	730	557
Total	100,476	98,451	107,343	86,770
Organisations	469	474	481	538
Year on year change tonnes CO_2		**-2,025**	**8,892**	**-20,573**
Year on year change %		**-2%**	**9%**	**-19%**
2015/16 vs. 2012/13 change tonnes CO_2		**-13,707**		
2015/16 vs. 2012/13 change %		**-14%**		
Annual average change %		**-4.5%**		

Table 3. Total emissions by activity and source of impact 2012/13-2015/16

		2012/13			2013/14			2014/15			2015/16		
Activity	Source of impact	Nr. orgs reporting	Individual reports	Tonnes CO2e	Nr. orgs reporting	Individual reports	Tonnes CO2e	Nr. orgs reporting	Individual reports	Tonnes CO2e	Nr. orgs reporting	Individual reports	Tonnes CO2e
Venues	Energy, water, waste and business travel	469	294	96,822	474	312	94,938	481	318	103,454	538	340	83,965
Offices	Energy, water, waste and business travel		234	5,498		234	5,597		238	6,036		337	6,957
Festivals	Energy, water, waste		19	227		23	196		22	423		25	678
Events	Energy and waste		0	-		0	-		0	1.54		11	2
Productions	Materials		26	26		17	14		22	25		35	54
Tours	Travel and transport		38	242		33	664		41	707		54	581
			611	102,816		619	101,409		641	110,647		802	92,238

2.3 Energy use and energy costs

Table 4. Energy use 2012/13-2015/16

Energy use	2012/13 kWh	2013/14 kWh	% change 2013/14 vs. 2012/13	2014/15 kWh	% change 2014/15 vs. 2013/14	2015/16 kWh	% change 2015/16 vs. 2014/15	% change 2015/16 vs. 2012/13	% annual average change
Electricity	149,492,225	154,803,554	4%	148,088,351	-4%	127,673,929	-14%	-15%	-5%
Normalised gas	137,863,493	123,984,245	-10%	146,067,428	18%	121,067,393	-17%	-12%	-4%
Onsite renewables	101,426	193,003	90%	256,177	33%	314,519	23%	210%	70%
	287,457,144	**278,980,802**	-3%	**294,411,955**	6%	**249,055,841**	-15%	-13%	-4.5%
		-8,476,342		**15,431,154**		**-45,356,114**			

Table 5. Energy use and energy costs trends 2012/13-2015/16

	kWh change 2013/14 vs. 2012/13	Energy cost change 2013/14 vs. 2012/13	kWh change 2014/15 vs. 2013/14	Energy cost change 2014/15 vs. 2013/14	kWh change 2015/16 vs. 2014/15	Energy cost change 2015/16 vs. 2014/15	kWh change 2015/16 vs. 2012/13	Energy cost change 2015/16 vs. 2012/13
Electricity	5,311,329	£584,246	-6,715,203	-£738,672	-20,414,422	-£2,245,586	-21,818,296	-£2,400,013
Normalised gas	-13,879,249	-£416,377	22,083,184	£662,496	-25,000,035	-£750,001	-16,796,100	-£503,883
Total	-8,567,920	£167,869	15,367,981	-£76,177	-45,414,457	-£2,995,587	-38,614,396	**-£2,903,896**

2.4 Comparison of energy use and energy use emissions

Energy use emissions decreased by 13,500 tonnes CO_2e between 2012/13 and 2015/16, an annual average reduction of 4.5%. There have however been significant fluctuations in energy use emissions over the four years. These fluctuations have happened for two reasons:

1. Changes in the carbon intensity of the UK grid energy supply – so although electricity use in kWh actually decreased by 4% between 2013/14 and 2014/15, an increase in carbon intensity of the UK's electricity supply of 11% meant that electricity use emissions increased by 6%.

2. Carbon emissions are calculated using weather normalised data – in other words, gas consumption has been adapted based on outside weather conditions and seasonal changes – so while in absolute terms gas use decreased by 11%, normalised gas use increased by 18%.

Table 6. Energy use

Energy use	2012/13 kWh	2013/14 kWh	% change 2013/14 vs. 2012/13	2014/15 kWh	% change 2014/15 vs. 2013/14	2015/16 kWh	% change 2015/16 vs. 2014/15	% change 2015/16 vs. 2012/13	% annual average change
Electricity	149,492,225	154,803,554	4%	148,088,351	-4%	127,673,929	-14%	-15%	-5%
Gas	183,582,875	165,100,880	-10%	146,844,383	-11%	122,224,153	-17%	-33%	-11%
Normalised Gas	137,863,493	123,984,245	-10%	146,067,428	18%	121,067,393	-17%	-12%	-4%
Onsite renewables	101,426	193,003	90%	256,177	33%	314,519	23%	210%	70%

Table 7. Energy use emissions

Energy use emissions	2012/13 tonnes CO_2e	2013/14 tonnes CO_2e	% change 2013/14 vs. 2012/13	2014/15 tonnes CO_2e	% change 2014/15 vs. 2013/14	2015/16 tonnes CO_2e	% change 2015/16 vs. 2014/15	% change 2015/16 vs. 2012/13	% annual average change
Electricity	74,168	74,858	1%	79,595	6%	63,882	-19.7%	-13.9%	-4.6%
Normalised Gas	25,534	22,818	-11%	27,018	18%	22,331	-17.3%	-12.5%	-4.2%
Onsite renewables	0	0	NA	0	NA	0	NA	NA	NA
	99,701	**97,676**	-2%	**106,613**	9%	**86,213**	-17.3%	-13.5%	-4.5%

2.5 Avoided energy use emissions and costs

Table 8. Avoided energy use emissions 2012/13-2015/16

Year	Business as Usual emissions with 2012/13 baseline - tonnes CO_2e	Emissions based on 4.5% year-on-year savings from 2012/13 baseline - tonnes CO_2e	Difference BAU vs. 4.5% tonnes CO_2e
2012/13	99,701	99,701	-
2013/14	99,701	95,215	4,487
2014/15	99,701	90,728	8,973
2015/16	99,701	86,242	13,460
Total	**398,805**	**371,886**	**26,919**

Table 9. Avoided energy costs 2012/13-2015/16

Year	Business as Usual energy costs with 2012/13 baseline	Energy costs based on 4.5% year-on-year savings from 2012/13 baseline	Difference BAU vs. 4.5% £
2012/13	£20,580,050	£20,580,050	
2013/14	£20,580,050	£19,653,947	£926,102
2014/15	£20,580,050	£17,885,092	£2,694,957
2015/16	£20,580,050	£15,470,605	£5,109,445
Total	**£82,320,198**	**£73,589,694**	**£8,730,505**

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