



# Sustaining Great Art and Culture

Environmental Report 2018/19



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# Glossary

**Accelerator Programme** – a strand of Arts Council England’s environmental programme to advance sustainable practice through two cohorts of 10 projects each

**Arts Council England** – the national development body for arts, culture and creativity across England

**Beyond Carbon** – a new option on the Creative Green Tools for organisations to report on environmental action and engagement beyond their carbon footprint

**Carbon footprint** – a measure of climate change impacts based on the use of energy, travel, waste etc. most commonly given in tonnes of carbon dioxide (CO<sub>2</sub>)

**Carbon neutral (or net zero carbon)** – to not cause an increase in greenhouse gas emissions by reducing and avoiding emissions and balancing out, capturing or offsetting those that cannot be avoided

**Circular economy** – designing out waste and pollution, keeping products and materials circulating within the economy at their highest value for as long as possible, and allowing natural systems to regenerate; the opposite of a ‘take-make-use-dispose’ linear economy

**Colour Green, The** – an Arts Council and Julie’s Bicycle produced podcast series exploring diverse voices within the environmental and creative sectors

**Creative Green Tools** – a set of free online tools developed by Julie’s Bicycle for cultural venues, events, offices and tours to report on their environmental impacts, calculate their carbon footprint and track progress over time

**Declaration of climate and ecological emergency** – a public declaration and commitment to action by individuals, organisations, cities, countries etc. either on their own terms, or as part of a group

**Divestment** – moving money away from fossil fuels through choosing banks, pension funds, sponsors etc. which do not invest in or make money from fossil fuels

**Green Print** – a sustainability roadmap for the cultural sector from 2022 drawing together expertise and innovation pioneered by the sector

**Intergovernmental Panel on Climate Change (IPCC)** – the United Nations (UN) body for assessing and reporting climate change science and its implications for policy-makers

**Julie’s Bicycle** – a charity supporting the creative sector to act on climate and environment and Arts Council England’s environmental programme delivery partner

**National Portfolio** – organisations which receive funding from Arts Council England over the 2018-22 period, comprising 828 organisations

**New creative ecology** – what a cultural sector with environmental values and principles at its heart looks like – from governance and strategy to cultural buildings and creative practice

**Paris Agreement, The** – a global commitment, negotiated within the United Nations (UN) Framework Convention on Climate Change and signed in Paris in 2016, to keeping the increase in global average temperature to well below 2 degrees Celsius

**Spotlight Programme** – a strand of Arts Council England’s environmental programme on energy management and carbon reduction

**Sustainable Development Goals (SDGs)** – 17 goals around sustainability towards 2030, at the heart of the United Nations 2030 Agenda for Sustainable Development

**Zero carbon** – an activity, product, organisation, city, country etc. which does not emit any greenhouse gas emissions

# Foreword



**In early 2020, the Arts Council will publish its new ten-year strategy, setting out the organisational priorities and policies that will shape our work until 2030.**

**During its development**

**we have been reflecting on the achievements made over the past decade, identifying key focuses for the future.**

We know that the climate and ecological crisis sits right at the heart of the cultural sector's agenda. The impact and urgency of climate change has never been more keenly felt, with unprecedented warnings from the scientific community on levels of global warming, loss of biodiversity and depletion of natural resources.

This year, Glasgow will host the 26th UN Climate Change Summit, the first to be hosted in the UK, bringing together scientific experts, politicians, policy advisors, business leaders and citizens from around the world. Against the backdrop of the international sustainability agenda, the unique role of arts and cultural organisations in supporting the shift in attitudes needed to address climate change becomes increasingly apparent.

Looking back over the last ten years, museums, libraries and arts organisations have taken some big strides. In 2012, the Arts Council made a simple policy intervention: a requirement that National Portfolio Organisations (NPOs) should have up-to-date environmental policy and action plans in place, and annually submit data on their environmental impacts – supported by an [Environmental Programme](#) delivered by Julie's Bicycle – which has had a staggering effect.

Our 2017/18 annual environmental report showed significant achievements, with a 35% reduction in carbon emissions and 23% reduction in energy consumption since the programme's inception – resulting in £16.5 million savings in energy costs.

However, the success of this programme goes far beyond the technicalities of data collection and carbon reduction; over the past decade cultural organisations have demonstrated imagination, ambition and passion – embedding climate action into the core of their operations, developing creative solutions, forging partnerships and sparking desperately needed conversations on sustainability through workshops, exhibitions, events, productions and performances.

The 2018-22 programme aims to respond to the sector's raised ambition, with [Spotlight](#) and

[Accelerator](#) offering new pathways for greater impact and innovation. It also offered us an opportunity to refresh our environmental dataset, with a Portfolio containing 20% more organisations than the 2015-18 Portfolio, including 184 new NPOs. Despite 22% of organisations being new to environmental reporting, I'm delighted to see that the same proportion of NPOs submitted robust environmental data this year; this report contains a clear snapshot of the Portfolio's current environmental impacts, providing us with a solid foundation to track progress – breaking the carbon footprint of the sector down by discipline for the first time and offering a roadmap for reduction over the next ten years.

We believe that arts and culture can truly make the world a better place, building a more environmentally responsible future. The stakes are high, and this area of work is more important than ever before, but as we embark on the next decade I am confident that the cultural sector will continue to thrive, drive change and make a real difference.

**Sir Nicholas Serota**

Chair, Arts Council England

# Introduction



**We must stop heating our atmosphere. We must replenish and restore nature. We must do both with a hand to the past and the future. And at breakneck speed.**

These are our responsibilities as we step in to the new decade. In the lead up to the 2020 [United Nations climate summit](#) in Glasgow, culture can ignite and reflect public concerns on the climate crisis to give COP26 the vitality climate talks often lack, and support the UK's diplomatic efforts to coax countries into doing the right thing. Because COP26 is a once-in-a-generation event. We now know that the carbon reduction pledges made by governments under the [Paris agreement](#) fall dismally short, and will condemn the world to a rise of more than [3°C by 2100](#). To prevent this, countries must reduce their greenhouse gases by over 7% annually for the next decade – closing that gap is the task of COP26. Since the 1992 Rio Summit, the battleground of climate politics has lost territory to global economic structures that rely on the extraction, contamination and disposal of nature's precious resources, meaning the talks have done little to stem the flow

of distressing data. Recently four UN Reports – [Climate](#), [Land](#), [Biodiversity](#), [Oceans](#) – have exposed the scale of destruction. Each shocking report was decoded, headlined and shared, with UK councils, local authorities, the NHS, Parliament, and many culture, music, architecture and heritage movements declaring a 'climate and ecological emergency'.

How much progress has the UK made? Since the Climate Change Act (2008) greenhouse gas emissions are 44% below 1990 levels and the UK has set a target of net-zero by 2050, but we are not on track. The [Committee on Climate Change 2050](#) roadmap demands completely decarbonized electricity generation and massive re-forestation. 2050 is not fast enough: somewhere between Extinction Rebellion's 2025 and CCC's 2050 there lies a zero carbon sweet spot.

The UK is one of the most [nature depleted countries](#) in the world. Disappearing nature is disappearing culture, taking with it words, crafts, knowledge and traditions. Cities and towns are every bit as fragile as the countryside; the loss of industry as a result of climate change can be as devastating as flooding and we need green jobs, skills, services, materials and supply chains.

The creative economy must keep pace with this transformation – even drive it. The 2018-22 Arts Council England Environmental Programme includes [Spotlight](#), offering pathways for NPOs to become net zero carbon; an [Accelerator](#) for new and innovative ideas and partnerships; events on [climate justice](#); and a 2022 Creative Green Print, that draws together expertise pioneered by the sector.

Culture has a carbon footprint, and data matters. This report shows why. It also highlights, through the range of responses, that there should be no opposition between what art is and how art does: reducing emissions prompts creativity and activism, and vice versa.

Like fireflies, creative ideas are everywhere, highlighting how culture is bound to energy, finance, economy and nature, with a pivotal role to play in climate justice, place-making and community. Sustainable practice is helping to reframe cultural leadership, offering regenerative solutions and giving back more than we take. Which is why culture's voice must be heard at COP26.

**Alison Tickell**

Founder and Director, Julie's Bicycle

# 2018–22 Environmental Programme

**Arts Council England’s Environmental Programme launched in 2012, when it became the first cultural body in the world to make environmental reporting, policies and action plans part of funding agreements for NPOs. In partnership with Julie’s Bicycle this pioneering policy has helped to develop the sector’s understanding, agency and leadership on environment and climate.**

## Aims:

1. support NPOs in meeting their funding requirements on environmental reporting, policies and action plans
2. demonstrate what positive environmental change the sector can achieve and the value this brings
3. develop the Art Council’s own capacity to support and drive positive environmental change

## What’s new in 2018-22?

In response to increasing ambition from the sector on environmental issues, the 2018-22 programme has evolved significantly:

There are currently 828 organisations in the 2018-22 portfolio, **20% more** than in 2015-18, including 184 new organisations

**‘Beyond carbon’:** a new online option for organisations to report on environmental practice beyond their carbon footprint

Plans to develop a **Green Print** from 2022: a roadmap for sustainability drawing together expertise and innovation pioneered by the sector

**Spotlight:** a new programme focused on building energy management and carbon reduction for 30 of the Arts Council’s biggest NPOs

**Accelerator:** a new programme to advance sustainable practice through two cohorts of 10 sector-led projects

A new focus on diverse voices within the environmental and cultural sectors, demonstrated in 2018 through **the Colour Green podcast** and **Common Ground symposium**

## Who is reporting and how?

The Arts Council’s National Portfolio includes organisations from across England, delivering work encompassing Combined Arts, Dance, Libraries, Literature, Museums, Music, Theatre and Visual Art. Some organisations are based in performance venues, others are office-based, touring or mobile. All organisations (no matter their size, location or cultural focus) are asked to report environmental data using the Creative Green Tools – capturing the portfolio’s environmental impacts and resulting carbon footprint, as well as allowing NPOs to track progress and reduction over time. With the addition of the ‘Beyond Carbon’ survey, NPOs also have the option to report on environmental action and engagement beyond their carbon footprint.



In 2018-19,

**89%**

of NPOs reported,  
**the same level as in  
2017-18**, even though  
**22% of organisations  
were new to  
environmental  
reporting.**<sup>1</sup>

**747**

NPOs reported  
on environmental  
impacts across

**646 venues,**

**508 offices,**

**105 events,**

**256 tours** and

**76 productions**

**352**

(or 42%) of NPOs  
used the  
'Beyond Carbon'  
option to report on  
environmental  
practice  
and engagement

<sup>1</sup> 766 NPOs or 91% engaged with reporting overall. 747 or 89% submitted environmental data on the tools and 19 or 2% were exempted from reporting this year for reasons such as building closure.

## Benefits of environmental action and engagement

**'Beyond Carbon' results revealed direct organisational benefits:**

- 81%** saw improved team morale
- 77%** reported that having an environmental policy is useful in supporting funding applications
- 66%** reported financial benefits
- 50%** reported reputational benefits

## Value of the environmental programme

**The Julie's Bicycle and Arts Council NPO survey of the environmental programme revealed thoughts around the overall value of the programme:**

- 77%** believe the programme can make or has made a positive difference to their organisation
- 86%** believe the programme can make or has made a positive difference to the sector as a whole
- 75%** believe it is very important for the Arts Council to continue to ensure environmental support for NPOs



**As the prominence of climate change has grown in the public arena, so too has our ambition to use our collections, estate and position at the heart of our local community to both make and inspire change. The annual Arts Council environmental report is really useful because it allows us to benchmark our data against the sector average, as well as providing practical case studies which we use for inspiration. On top of this, Julie's Bicycle has a great set of tools and guidance about things like waste and green travel plans, which mean that we don't have to reinvent the wheel when we want to focus on a particular area for improvement.**



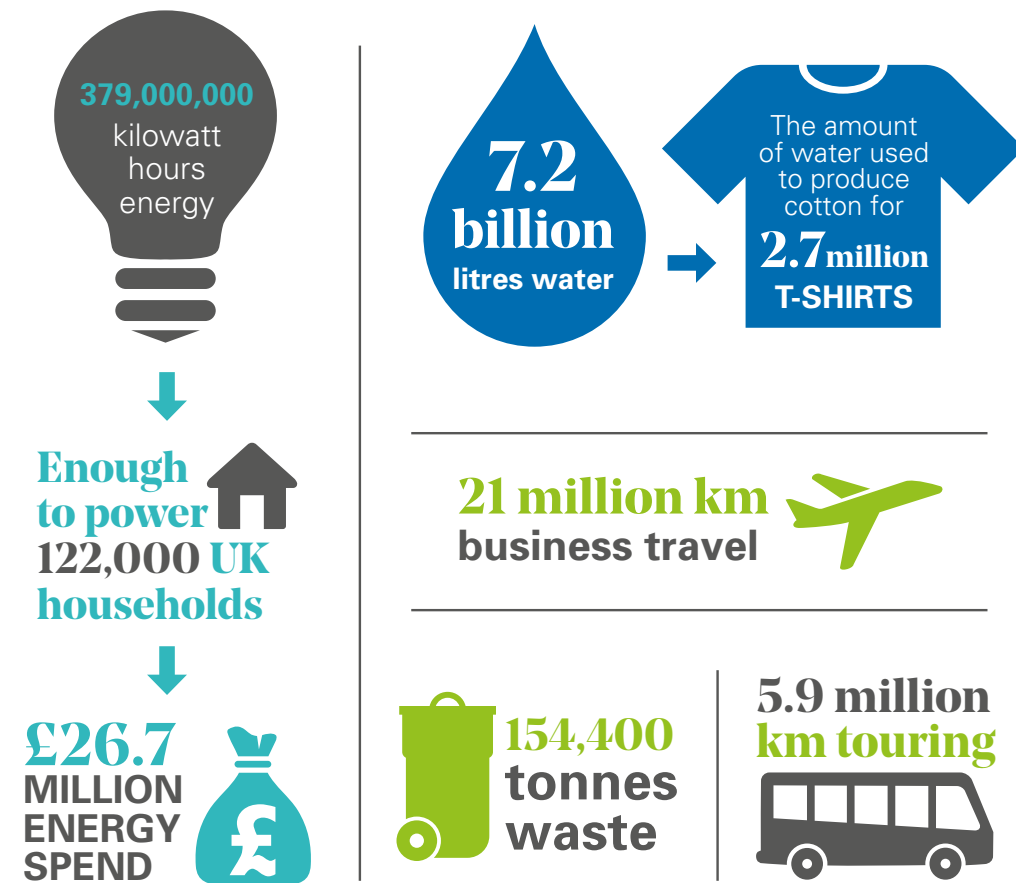
Kirsten Walker, Director of Collections Care and Estates and Chair of the Horniman's Climate and Ecology Action Group, **Horniman Museums and Gardens, London**



# What is reporting showing us?

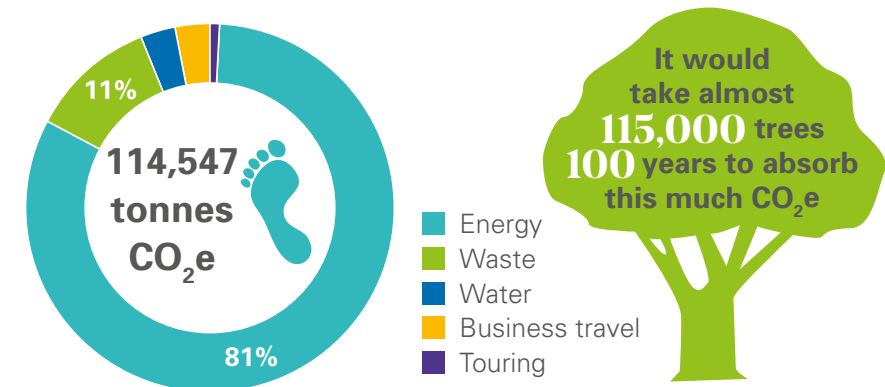
## An environmental impact snapshot for 2018/19

This snapshot is based on the most commonly reported impacts – energy, water, waste, business travel and touring across 747 organisations<sup>2</sup>.

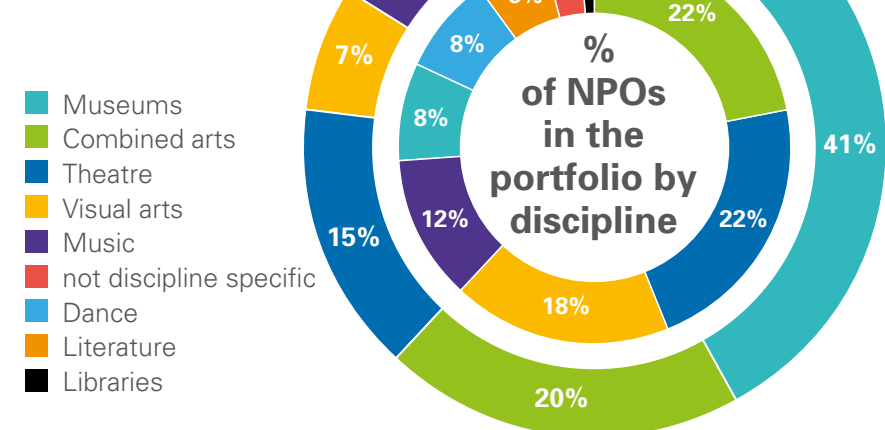


<sup>2</sup> Bottled gas, diesel (for generators), production materials and audience travel data were excluded as there was a very low level of reporting on these impacts. In addition, where audience travel data is reported it is generally based on rough estimates.

## Total carbon footprint 2018/19 by source of impact



## Total carbon footprint 2018/19 by discipline



## Spotlight

The **Spotlight Programme** is focused on energy management and carbon reduction for some of the portfolio's biggest buildings and energy users. 30 Band 3 organisations (organisations that receive over £1million in annual funding from the Arts Council) – making up a third of all reported energy use and energy use emissions – are signed up and being supported by Julie's Bicycle to:

- assess and strengthen building energy management and monitoring
- set measurable energy and carbon reduction targets in line with science
- make informed decisions about how to reach these targets
- exchange and learn from each other, in particular through two annual **peer learning events**



**Whole group 2018/19**  
747 organisations – approx. 1150 sites

**Spotlight group 2018/19**  
30 organisations – 80 sites

**31,109 tonnes**  
**CO<sub>2</sub>e**  
generated by energy  
use **£8.7 million**  
energy spend

**39% of purchased electricity**  
on green tariff

**93,153 tonnes**  
**CO<sub>2</sub>e**  
generated by energy  
use **£26.7 million**  
energy spend

**32% of purchased electricity**  
on green tariff

This group of 30 is a test bed for developing a model that can be scaled up across the wider cultural sector and a pathway to zero carbon cultural buildings. Through Spotlight, Julie's Bicycle has been able to identify the basis for this model and a pathway to zero carbon buildings by 2050:

- **use energy as efficiently as possible**
- **electrify buildings – switching from gas to heat pumps**
- **use green electricity (on-site, local, procured)**

**Potential avoided emissions and costs if 30 Spotlight organisations (across 80 sites) follow the zero carbon 2050 pathway: annual 2% reduction in energy use, electrification of buildings and the continued decarbonisation of UK grid electricity**

**over 4 years to 2021-22:  
12,300 tonnes CO<sub>2</sub>e  
and £0.5 million**

**over 11 years to 2029-30:  
122,100 tonnes CO<sub>2</sub>e  
and £6 million**

**If this is replicated across the portfolio (747 organisations across approx. 1150 sites)**

**over 4 years to 2021-22:  
36,500 tonnes CO<sub>2</sub>e  
and £1.5 million**

**over 11 years to 2029-30:  
364,300 tonnes CO<sub>2</sub>e  
and £18.9 million**

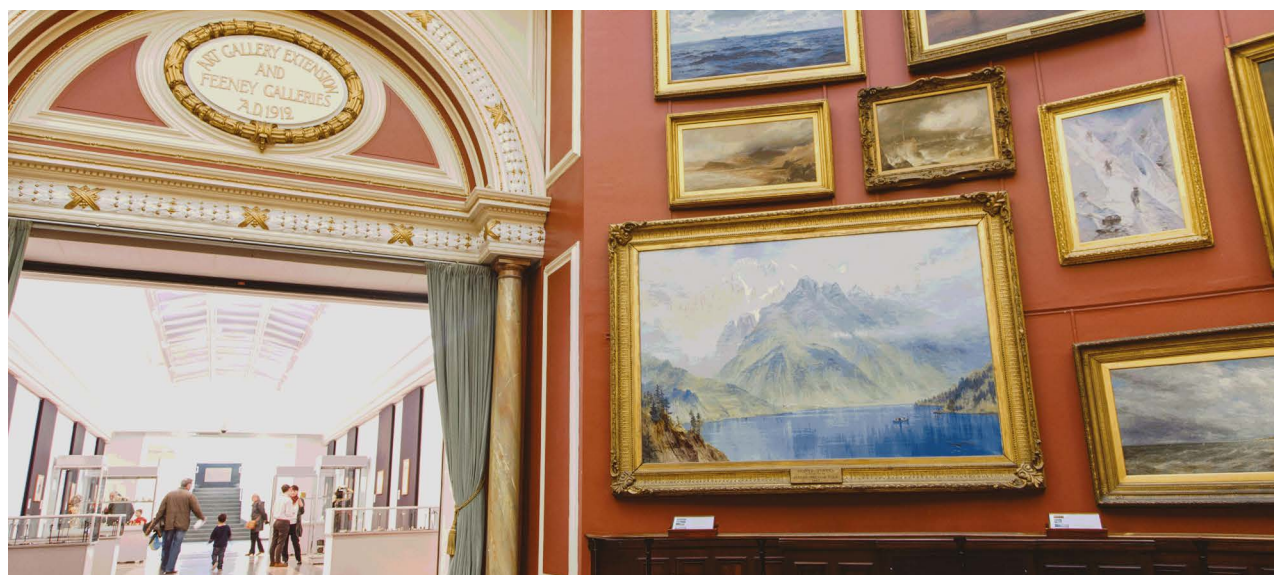


Climate change isn't something we can tackle alone..... Spotlight has brought us together with other organisations across the Council and Leeds' cultural sector, such as Opera North and Sustainable Arts in Leeds. It has provided a useful space to consider the unique qualities cultural organisations can bring to making a difference locally and globally.

[Read More](#)



Lisa Broadest, Head of Operations,  
**Leeds Museums and Galleries**





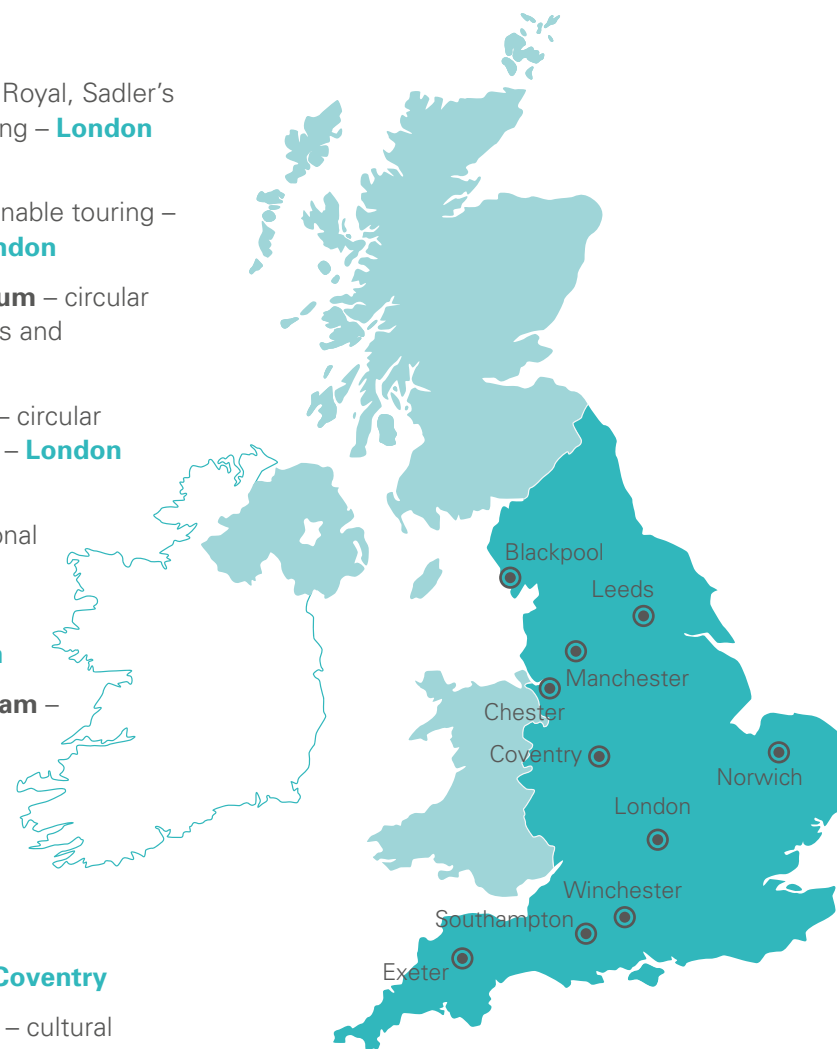
# Accelerator

The [Accelerator programme](#) is supporting two cohorts of ten organisations or consortia to actively explore and develop ambitious ideas on environmental practice into deliverable projects, sharing results and solutions with their peers and the wider sector. Insights and learning from the Accelerator Programme will become a critical part of the Green Print, a roadmap for a sustainability driven cultural economy.



## Accelerator Cohort 1

- 1 **New Adventures**, Norwich Theatre Royal, Sadler's Wells consortium – sustainable touring – **London** and **Norwich**
- 2 **Metta Theatre consortium** – sustainable touring – **Exeter, Chester, Blackpool** and **London**
- 3 **Artsadmin and Bow Arts consortium** – circular economy approach to artistic process and production – **London**
- 4 **Festival Republic and Boomtown** – circular economy approach to festival waste – **London** and **Winchester**
- 5 **East Street Arts** – becoming a regional hub for environmental good – **Leeds**
- 6 **London Theatre Consortium** – carbon reduction roadmap – **London**
- 7 **Manchester Arts Sustainability Team** – zero-carbon culture roadmap – **Manchester**
- 8 **Philharmonia Orchestra** – building environmental themes into artistic programming – **London**
- 9 **Talking Birds** – becoming a hub for demonstrating and driving action in **Coventry**
- 10 **We Are The Square Southampton** – cultural collaboration on climate change in the city – **Southampton**





- 19 people from Cohort 1 took part in the first Accelerator climate leadership course in 2018, a three-day residential programme, facilitated by Julie's Bicycle, exploring what climate change means for the sector and the tools and skills needed for Accelerators to carry out their projects.
- Over 100 representatives from both NPOs and the broader sector took part in 2019's Accelerator Cohort 2 development workshops
- 2019's [Accelerator peer exchange](#) event brought Cohort 1 and those interested in Cohort 2 together to share and exchange learning and insights
- There has been a 60% increase in applications between Accelerator Cohort 1 and Cohort 2

### Stories from the sector:

The **London Theatre Consortium** (LTC) is developing a roadmap for achieving a 60% carbon reduction by 2025 in line with London targets, alongside continued development of the role that LTC theatres can play in tackling wider environmental issues. With support from Julie's Bicycle through the Accelerator Programme, LTC has begun to explore pathways to achieving its target and develop collaboration with the Greater London Authority's Culture and Environment teams.

[Read more](#)



# Voice from the movement



**Baroness Lola Young is an independent Crossbench peer in the House of Lords, before which she was Head of Culture for the Greater London Authority. She has sat on the boards of many cultural organisations, including the**

**National Theatre, Southbank Centre and Historic England. This year Lola worked with Julie's Bicycle and Arts Council England on [The Colour Green podcast](#), in conversation with artists and activists of colour, and delivered the keynote speech for [Common Ground: Culture, Climate and Social Justice](#).**

## **How did you get involved in the climate movement?**

My parliamentary work has included a lot of work around modern slavery and supply chains, and more around environmental sustainability of late – in particular through my work with the fashion industry, for which environmental sustainability is just as big an issue, if not more so in some respects, than modern slavery. I've thought for some time 'what's happening with people of colour?' as you don't see many representations of people of colour in the movement, so that was a concern.

## **What has changed in the last twelve months in this space?**

Extinction Rebellion and David Attenborough's Blue Planet series have helped raise climate change to the top of the agenda. We're experiencing increasing levels of urgency and people are saying 'Look something needs to be done! There is a climate emergency... we really have to get on top of this right now'.

## **What do you think creatives, artists and the cultural sector can bring to the climate movement?**

We're talking about people who innovate, who are creative, people with imagination, who can prompt us to think the unthinkable, think the unthinkable themselves, present us with different ways of thinking and doing, and that's exactly what we need.

## **What are some of the most impactful examples you have seen of the difference the sector can make?**

For me, the work of Julie's Bicycle is paramount. I say this not just because I'm working with them but because what they've done is to raise this to a whole new level in a coherent and strategic way – in terms of how the Arts Council thinks about distributing its funding and how arts organisations think about their practice, as well as the content of their work. I think without Julie's Bicycle other developments would have been slower to come to fruition. 'What Next?' Climate Change is another important group, which has been very much inspired by and prompted by their work.

## **You touched on the lack of diversity in the environmental movement, and the creative and cultural sector – how do you think this can change?**

We need to get beyond being defensive and work together so we can engage as many people as possible. If we think about diversity in its true sense: of being a diverse range of people, whether that's cultural, ethnicity, class, gender... the movement hasn't really got it, so there's lots that can be done. When we recorded The Colour Green podcast, we deliberately set out to find artists and creative people of colour who'd been thinking about this but maybe approaching it differently. It's important too for the mainstream environmental movement, in thinking through their strategies and how they go about their campaigns. For example, when Extinction Rebellion talk about going somewhere to get arrested that's highly problematic for black people as we can't stop getting arrested!

## **Where do you think the sector should put its focus going forward?**

Just as we've had that struggle for diversity within the creative and cultural sector – a struggle which is by no means over – the struggle for equality and ending discrimination is linked to the struggle for sustainability, so I think people need to recognise how those different things interact with each other.



# Key findings

## Methodology

The findings in this report were drawn from several sources:

- Environmental reporting on the Creative Green Tools from 747 NPOs.
- ‘Beyond Carbon’ responses – a new option on the Creative Green Tools for organisations to report on environmental action and engagement which goes beyond carbon and costs – completed by 352 NPOs.
- Annual evaluation survey on value of the programme which 168 NPOs completed.
- Case studies of individual organisations demonstrating best practice.

For the methodology analysis, see **Appendix 3**.

# What progress looks like

## Developing understanding and skills

- A solid understanding of environmental impacts developed through engagement with the Arts Council's Environmental Programme
- Increased environmental training and professional development, particularly programmes run for and led by the sector
- Environmental knowledge reflected in engagement activities and creative outputs, which help others develop their own understanding of these issues and the actions they can take

## Taking action

- A wide range of environmental action, with practical action and creative responses increasingly going hand-in-hand
- Improved building energy management, replacing fossil fuels with low and zero carbon alternatives, and increasing action on plastics, food and biodiversity
- A growing concern around travel (no capital) impacts, one of the most challenging areas to address

## Increasing collaboration

- Recognition that collaboration is essential to taking environmental practice to the next level, in order to address the urgency and scale of action needed
- Increased collaboration within cities, where there is a growing understanding of the crucial role culture can play in addressing the climate and ecological crisis

## Signs of a new creative ecology

- Climate change and environment are becoming more of a governance issue, being taken on at trustee and board level
- Some organisations are now starting to develop ambition and strategies in line with climate change and environmental science and international policy commitments, notably the Paris Agreement
- Emerging areas of focus including circular models for creative practice and investment and sponsorship decision-making

## Creative opportunities

- A huge increase in engagement, artwork and creative responses, building understanding, advocating for and mobilising positive environmental change and embracing the sector's potential to support the cultural shift needed to address the climate and ecological crisis



## Key findings

### Developing understanding and skills

- **80%** say environmental reporting helps better understand impacts
- **28%** offer staff opportunities for environmental training and professional development
- **24%** facilitating environmentally-themed activities and campaigns for local communities

### Taking action

- **54%** have installed energy efficient lighting and controls
- **64%** taking steps to eliminate single-use plastics
- **29%** committed to sustainable food sourcing
- **70%** actively promote virtual communications technology as an alternative to travelling

### Increasing collaboration

- **35%** collaborate with their peers on finding and sharing environmental solutions
- **25%** collaborate with neighbourhood or city decision makers on finding and sharing solutions to environmental issues

### Signs of a new creative ecology

- **38%** have director or board level representatives with a specific environmental remit
- **47%** trialling sustainable production or exhibition methods
- **29%** with an ethical sponsorship or partnerships policy

### Creative opportunities

- **49%** have produced, programmed or curated work exploring environmental themes
- **50%** have developed new creative or artistic opportunities as a result of environmental initiatives

## Developing understanding and skills

From producing webinars on environmental reporting and circular economy briefings, to leadership training for the Accelerator cohort and peer-learning on energy management for Spotlight participants, Arts Council England's environmental programme supports increased environmental understanding and skills development across NPOs.

Many organisations are also developing a more in-depth understanding of specific environmental impacts and issues – for example, doing energy and waste audits, carrying out surveys to identify what matters most to staff and audiences, and delving deeper into specific issues such as alternatives to single-use plastics.



**80%** agree or strongly agree that annual environmental reporting helps to better understand environmental impacts

**53%** use environmental impact data to inform planning and actions

### Stories from the sector:

The **National Theatre (London)** goes into granular detail on energy use across its sites – how much, when, where and why – using this to inform its energy actions. Recently, they've also begun looking at production materials – how much, what type and how they are sourced – as well as the carbon footprints of touring shows. [Read more](#)

**Artsadmin** and **Bow Arts (London)** are working to develop a circular economy approach to artistic process and production, under the Accelerator Programme. They conducted a [survey](#) to better understand current practice, which showed that artists consider sustainability mainly in the sourcing and disposing of materials, and are planning a workshops on circularity for artists.



Environmental sustainability is a thread that runs through every aspect of Collective Encounters work, it influences every decision we make.



Collective Encounters, Liverpool



Opportunities for developing environmental knowledge and skills are increasing – through internal and external training and professional development courses. There are also some great examples of the sector ‘doing it for itself’, with the creation of new environmental training programmes run for, and led by, the sector.

**28%** offer staff opportunities for environmental training and professional development

### Stories from the sector:

All staff at **HOME (Manchester)** receive Carbon Literacy training, delivered by two accredited trainers on the HOME team. They deliver this training to other organisations and have supported fellow members of the Manchester Arts Sustainability Team to develop their own training. [Read more](#)

In 2018 the **London Theatre Consortium (LTC)** organised its first [Artists Climate Lab](#), a week of artist-led professional development on climate art and sustainable practice for a cohort of theatre-makers. [Read more](#)





This growth in environmental understanding is reflected in NPOs' engagement activities and creative outputs, which are contributing to helping others – artists, audiences and local communities – develop their own understanding of environmental issues and the actions they can take.

### Stories from the sector:

The **New Carnival Company (Isle of Wight)** organised a 2019 Mardi Gras parade themed 'Biosphere Island', partnering 28 schools with a local environmental organisations to learn about and present work supporting the island's application to be recognised as a UNESCO Biosphere Reserve. [Read more](#)

Dance-circus company **Motionhouse (Leamington Spa)** has done several productions over the past 10 years, seen by more than 195,000 people, exploring our relationship with the natural environment – from *Cascade*, set on a submerged house amid rising flood waters, to *Wild*, exploring our disconnect with nature.

**49%** producing, programming or curating work exploring environmental themes



We are delighted to be a champion for environmental sustainability in our work with school and community groups across the South of England. Working with Julie's Bicycle, and the annual Arts Council England environmental reporting process, guarantees that we, as a small outdoor arts development company, are clearly seen to be practising what we preach!



New Carnival Company

**24%** facilitating environmentally-themed activities and campaigns for local communities





# Taking action

From one-to-one support on developing action plans and producing guides on green touring, biodiversity and the circular economy, the Arts Council's Environmental Programme supports NPOs to take action at all stages in their environmental journey. While putting important effort into practical actions around reducing use of energy, water and waste, the sector is now also demonstrating a greater breadth of activity – with practical action and creative responses increasingly going hand-in-hand.

**54%** have installed energy efficient lighting and controls

**32%** of purchased electricity is on a green tariff contract

**32%** have installed water saving devices



## Stories from the sector:

In recent years, **Watts Gallery Artists' Village (Surrey)** has focused heavily on energy, from improving insulation, window glazing and solar shading to installing new high efficiency boilers and LED lighting. They also generate renewable energy on site via ground source heat pumps and a solar thermal hot water system. Environmental awareness and responsibility are deeply rooted in the Watts Gallery Trust's ethos. The Trust exists to conserve and continue the legacy of G F and Mary Watts, for whom environmentalism was a key concern – G F Watts for example played a key role in establishing the Royal Society for the Protection of Birds.

[Read more](#)

The **Horniman Museum and Gardens (London)** has a long track record of practical environmental action: reusing water from its Aquarium filters to water plants in the gardens, providing water refill points as part of the #OneLess campaign, charging for plastic bags and using proceeds to fund conservation research. Environmental issues are now also increasingly reflected in visitor engagement, for example through its Green Visitor Guide, and creative programming, for example its 2019 Beat Plastic Pollution display – where they introduced more than 150 items of single-use and waste plastic into their permanent aquarium exhibits. [Read more](#)

Key areas where the sector is increasingly taking action include plastics, food and biodiversity.



The Arts by the Sea festival is rooted in our unique park and seaside location, which has a direct impact on our programming and on the environmental sustainability message that underlies the festival every year. Julie's Bicycle helped us update our Environmental Policy and develop a range of activities and messaging, utilising the festival as a platform to highlight environmental issues alongside our core artistic content.

[Read more](#)



Andrea Francis, Festival Director,  
Bournemouth Arts by the Sea

**64%** taking steps to eliminate single-use plastics

**29%** committed to sustainable food sourcing

**20%** acting to protect and increase site biodiversity

### Stories from the sector:

**Midlands Arts Centre (Birmingham)** takes a local and sustainable approach to catering. Serving a variety of FairtradeTM products and sourcing from their local community where possible, the organisation has changed their suppliers for alcohol, coffee and disposables from large organisations to local companies. They also provide used coffee grounds as garden fertiliser to customers, nearly all their disposable serve ware is plant-based and they offer a discount for customers who use reusable coffee cups.





Improving building energy management and taking fossil fuels out of buildings is key to reducing one of the sector's biggest environmental impacts. The **Spotlight Programme**, which will establish achievable yet ambitious energy management and carbon reduction targets for some of the portfolio's biggest buildings and energy users, provides a test bed for developing a model that can be scaled up across the sector and offer a pathway to zero carbon cultural buildings.



We are very proud of our 2018/19 environmental achievements. But this is only the start of our journey and with the help of Spotlight, our Music Works capital project and our company-wide engagement programme we are confident we will meet our pledge of becoming carbon neutral by 2030.



Richard Mantle, General Director,  
**Opera North, Leeds**

### Stories from the sector:

**Opera North** has come a long way in two years, from getting to grips with energy monitoring, to installing more efficient lighting and switching to 100% renewable electricity. Over the last year it reduced electricity use in its main building by 23% through behaviour change campaigns alone. Music Works, its £15 million capital project, involves a range of energy efficiency, low and zero carbon measures from improving insulation to installing lighting control systems and solar photovoltaic panels on the roof to generate zero carbon electricity. [Read More](#)



Opera North: Music Works capital project cutaway

The impact of travel is a growing concern across the sector, and is one of the most challenging areas to address. Business and staff travel are easier to monitor and influence, while touring – especially internationally – and audience travel, present bigger challenges. While many organisations promote sustainable travel options to their audiences, the options are limited, depending entirely on the location of the organisation are available alternatives.

### Stories from the sector:

**HOME** Manchester operates a Sustainable Travel Policy, advocating the use of Skype and video-conferencing to reduce travel and encouraging national and European travel by train. Each staff member receives a personalised travel pack to help them plan their journeys, and HOME works with Transport for Greater Manchester Travel Choices allowing them to survey staff travel and review choices to improve practice. [Read more](#)

With a more than 20-fold increase in international visual art Biennales over the last decade, the **Baltic Centre for Contemporary Art** has begun to explore what internationalism looks like in a time of climate emergency – driven by conversations following their Director's decision to travel to the 2019 Venice Biennale by train. [Read more](#)

**70%** actively promote virtual communications technology as an alternative to travelling

**66%** communicate sustainable travel options to their audience





## Increasing collaboration

With a very short time frame in which to act and given the scale of action needed, many organisations are realising that collaboration is essential to take their environmental practice to the next level – for example, through using collective purchasing power and addressing issues over which they have less control or influence, such as transport services. In particular there has been an increase in sector collaboration in cities, where there is a growing recognition of the crucial role of culture in addressing the climate and ecological crisis.

Within the Arts Council's Environmental Programme, Accelerator and Spotlight are helping to meet the sector's desire for peer-learning and generating new opportunities for collaboration within the portfolio, with the broader creative and culture sector, and beyond.

**35%** collaborate with other cultural organisations on finding and sharing solutions to environmental issues

**25%** collaborate with neighbourhood/city decision makers on finding and sharing solutions to environmental issues

### Stories from the sector:

The **Manchester Arts Sustainability Team** (MAST) works collaboratively with numerous partners across the city. A recent example is their work with the Business Growth Hub's Green Growth programme to develop a sustainable procurement survey and supplier review. [Read more](#)

In 2019 the **Leeds Climate Commission** (LCC) collaborated with **Opera North**, to deliver sustainable arts venue training for cultural venues in the city. The commission brings together key organisations and actors from across the city and from the public, private and third sectors to provide advice on steps towards a low carbon, climate resilient future. Opera North is now a member of LCC's engagement and communications group. They are also a founding member of Sustainable Arts in Leeds (SAIL), which includes **East Street Arts** and **Leeds Museums and Galleries**. [Read more](#)



**New Adventures launched Green Adventures in 2018 and was proud to pilot the first Creative Green certification for the touring sector on our 2018/19 UK tour of Swan Lake. The Accelerator programme has provided the springboard for close partnership working with Norwich Theatre Royal and Sadler's Wells looking at how touring companies and venues can be greener together. It has also opened up conversations across the sector and created a vital network of peers to support each other and share ideas."**

[Read More](#)



Louise Allen, Head of Operations,  
**New Adventures**

## Signs of a new creative ecology

Environmental understanding, skills, action and collaboration are all changing the way the cultural sector operates – with new priorities, practices and investment kick-starting a new creative ecology, where environmental values and principles are embedded into the heart of the cultural sector.

Climate change and environmental action are increasingly becoming a governance issue, being addressed at trustee and board level.

**38%** have  
director or board level  
representatives with a  
specific environmental  
remit

**78%** have  
included environmental  
sustainability in core  
business strategies or  
plans

### Stories from the sector:

#### **Watts Gallery Artists Village (Surrey)**

have appointed a Trustee Environmental Sustainability Champion, and environmental sustainability is an agenda item on all board meetings. They have also appointed an Environmental Ambassador from their volunteer team to sit on their Environmental Sustainability Working Group, to promote sustainability among their 250+ volunteers.

[Read more](#)



Some organisations are also beginning to develop ambitions and strategies that are in line with international policy commitments and current scientific thinking, most notably the Paris Agreement and the United Nations Sustainable Development Goals.

**10%** have environmental policy and or strategy which is aligned to the level of reductions we need to achieve according to the science

### Stories from the sector:

**Colston Hall**, part of Bristol Music Trust, became the first UK concert hall to commit to becoming carbon neutral by 2030. The hall is currently undergoing a major redevelopment putting environmental and sustainability targets centre stage, taking several the United Nation's Sustainable Development Goals as a blueprint.

The Grade-II listed building already has solar power, water-efficient devices, natural ventilation, some movement-sensitive lighting and a well-established waste management approach. The Trust will build on current environmental practice, developing a detailed delivery plan by autumn 2020 to achieve its carbon neutral ambition. After the renovation the hall will use significantly less power, use mainly renewable energy sources, send zero waste to landfill and offset emissions that cannot be avoided.



**We have been at the heart of Bristol's arts and culture scene for over 150 years and we take our commitment to the Bristol community and our role in the city very seriously. This extends beyond the delivery of our performance and education programmes with our responsibility to make a difference and lead the way in how our sector can reduce our environmental impact.**



Louise Mitchell, Chief Executive,  
**Bristol Music Trust**





Developing circular models and designing out waste and pollution from creative practice is one of the key areas of emerging focus. As well as a growing interest in investment and sponsorship – building ethical and environmental principles into wider decision-making, investing in low or zero carbon solutions, using banks and pension providers with ethical investment policies and moving away from funding sources which make profits from fossil fuels.

### Stories from the sector:

**Leeds City Museum's** 'Beavers to Weavers: the wonderful world of animal makers' showcased how animals use what they find around them. The museum put sustainability at the heart of the exhibition-making process and were awarded Museum Association's 'Museums Change Lives' award in 2019.

[Read more](#)

**South Asian Arts-uk (Leeds)** has ethical sponsorship/partnership included in their environmental policy and are currently supporting the development of a network on 'unplugged' performances – promoting electricity free musical performance.



**Our new travelling theatre – the Den – is part of our Local Exchange programme. It was designed by architects Haworth Tompkins as a low carbon space, in line with our own environmental commitment and our city's zero carbon 2038 target. We made it with sustainable and natural materials, much of it from the UK. The seats are cardboard and the equipment low energy. The project was supported by the Oglesby Charitable Trust, who are equally passionate about the environment.**

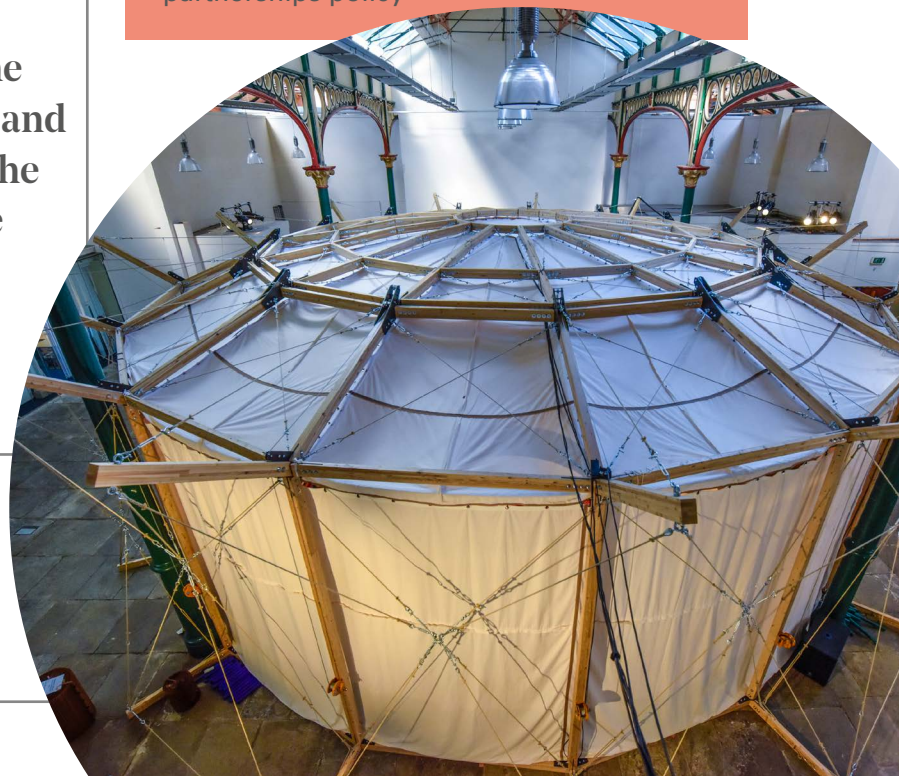


Simon Curtis, Head of Production,  
**Royal Exchange Theatre** and Chair,  
**Manchester Arts Sustainability Team**

**47%** trialling sustainable production or exhibition methods

**30%** with banks that invest in social and environmental projects

**29%** with an ethical sponsorship/partnerships policy





# Looking ahead

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Spotlight and Accelerator are the cornerstones of the Arts Council's 2018-22 environmental programme. They highlight the significant achievements made by cultural organisations since the programme began in 2012, stretch the sector's ambition and strive to bring about real change. We look forward to developing these programmes further to understand the impact that they can have on innovative sustainable practice and carbon reduction modelling – evaluating and sharing our learning to help shape the wider creative industries' response to climate change.

Since embarking on our new four-year contract with Julie's Bicycle, we've collaborated on events and workshops bringing together voices from the cultural sector and beyond. In February 2020, over 300 delegates will convene for the [We Make Tomorrow Summit](#), bringing cultural leaders together with grassroots activists, policy-makers and the scientific community to explore what creativity, leadership and innovation means in the context of the climate and ecological crisis.

In early 2020, we will also be launching the Arts Council's next ten-year-strategy, which has been developed through extensive consultation with arts and cultural organisations. Responses to the consultation made it clear that climate and the environment are key priorities that resonate across the sector; we have listened.

Everyone has a responsibility in addressing the impact of climate change and over the years we have seen arts and cultural organisations lead the way in embedding environmentally responsible behaviours into their organisations – taking both practical and creative action to meet the challenges we face.

Looking ahead, we are excited to continue our work with Julie's Bicycle, and, over the next ten years, to supporting the sector by delivering policies and programmes that will help build a more sustainable future for us all.

# Appendices

## Appendix 1: About Julie's Bicycle

Founded in 2007 to respond to the climate crisis, Julie's Bicycle is working globally across the creative sector to reduce greenhouse gas emissions and catalyse the green creative economy.

Working with over 2,000 organisations, NGOs and governments worldwide, Julie's Bicycle has developed an approach which harnesses the power of the creative sector to communicate the reality of the climate crisis, advocate for science based solutions, take bold practical action, and offer support and advice to those who share their vision. The team blends environmental expertise with arts and cultural sector experience, and the freely available resources constitute the most comprehensive library of good environmental practice developed specifically for the arts and culture sectors anywhere in the world.

Designed and developed by Julie's Bicycle, the Creative Green Tools – a suite of carbon calculators and a certification scheme – are the recognised benchmark for sustainability achievements within the creative industries.

Since 2012, Julie's Bicycle has been the Arts Council's contracted delivery partner for supporting its funded organisations in reporting their carbon footprint, and developing environmental policy and action plans.



## Appendix 2: Stories from the sector

| Organisation                              | Artform       | Location   | Spotlight | Accelerator | Further information   |
|---|---------------|------------|-----------|-------------|---|
| <b>Artsadmin</b>                          | Combined Arts | London     |           | x           | <a href="#">Artist sustainability survey blog</a><br><a href="#">Artsadmin sustainability webpage</a>   |
| <b>Bows Arts</b>                          | Visual Arts   | London     |           | x           | <a href="#">Bowarts sustainability webpage</a>  |
| <b>Baltic Contemporary Arts Centre</b>    | Visual Arts   | North      | x         |             | <a href="#">Read more on Julie's Bicycle's website</a><br><a href="#">Sustainability webpage</a>  |
| <b>Bournemouth Arts by the Sea</b>        | Combined arts | South West |           |             | <a href="#">Read more on Julie's Bicycle website</a><br><a href="#">Sustainability webpage</a>  |
| <b>Colston Hall – Bristol Music Trust</b> | Music         | South West |           |             | <a href="#">Colston Hall carbon neutral plans</a>   |
| <b>Collective Encounters</b>              | Theatre       | North      |           |             |   |
| <b>HOME Manchester</b>                    | Combined Arts | North      | x         | x           | <a href="#">Read more on Julie's Bicycle website</a><br><a href="#">Sustainability webpage</a>  |
| <b>Horniman Museums &amp; Gardens</b>     | Museum        | London     |           |             | <a href="#">Read more on Julie's Bicycle website</a><br><a href="#">Sustainability webpage</a>  |
| <b>Leeds Museum and Galleries</b>         | Museum        | North      |           |             | <a href="#">Read more on Julie's Bicycle website</a><br><a href="#">Creating a sustainable exhibition blog</a>                                    |
| <b>London Theatre Consortium</b>          | Theatre       | London     | x         | x           | <a href="#">Read more on Julie's Bicycle website</a><br><a href="#">Sustainability webpage</a><br><a href="#">Artists Climate Lab Reflections</a> |



|  |               |            |   |   |   |
|--|---------------|------------|---|---|---|
| <b>Manchester Arts Sustainability Team</b> | Mixed         | North      |   | x | <a href="#"><u>Read more on Julie's Bicycle website</u></a>   |
| <b>Motionhouse</b>                         | Dance         | Midlands   |   |   | <a href="#"><u>Motionhouse reusable range</u></a>   |
| <b>National Theatre</b>                    | Theatre       | London     |   |   | <a href="#"><u>Read more on Julie's Bicycle website</u></a><br><a href="#"><u>Sustainability webpage</u></a>  |
| <b>New Adventures</b>                      | Dance         | London     |   | x | <a href="#"><u>Sustainable touring consortium case study</u></a><br><a href="#"><u>Green Adventures webpage</u></a>   |
| <b>Norwich Theatre Royal (NTR)</b>         | Theatre       | South East | x |   | <a href="#"><u>NTR sustainability webpage</u></a><br><a href="#"><u>NTR green touring video</u></a>   |
| <b>Sadler's Wells</b>                      | Dance         | London     | x |   | <a href="#"><u>Sadler's Wells sustainability webpage</u></a>  |
| <b>New Carnival Company</b>                | Combined arts | South West |   |   | <a href="#"><u>Read more on Julie's Bicycle website</u></a>   |
| <b>Opera North</b>                         | Music         | North      | x |   | <a href="#"><u>Read more on Julie's Bicycle website</u></a><br><a href="#"><u>Sustainability webpage</u></a><br><a href="#"><u>Sustainable Arts in Leeds – SAIL</u></a> |
| <b>Royal Exchange Theatre</b>              | Theatre       | North      | x |   | <a href="#"><u>Royal Exchange sustainability update</u></a>   |
| <b>South Asia Arts UK</b>                  |               | North      |   |   |   |
| <b>Watts Gallery Trust</b>                 | Museums       | South East |   |   | <a href="#"><u>Read more on Julie's Bicycle website</u></a><br><a href="#"><u>Sustainability webpage</u></a>  |

## Appendix 3: Methodology

**Arts Council England has published annual reports on its environmental programme since it started in 2012-13. The reporting approach has evolved across each phase of the programme 2012-2015, 2015-2018 and now 2018-22. The 2018-22 approach has evolved in particular:**

- in light of changes in the portfolio – there are 20% or 165 more organisations in the 2018-22 portfolio compared with 2015-18 and 22% or 184 organisations are new to environmental reporting;
- to demonstrate a greater depth and breadth of environmental action and engagement and the benefits which this brings, including but also beyond carbon and cost savings, and;
- to be more forward-looking in terms of potential savings and pathways to achieve significant impact reductions.

**As with previous phases, the environmental data provided by National Portfolio Organisations (NPOs) on the Creative Green Tools and annual programme survey provide key inputs for annual reporting. For 2018-22 we are bringing additional breadth and depth notably as a result of:**

- the establishment of the Spotlight group, 30 organisations across 80 sites - making up a third of the total energy footprint in 2018-19 - focused on energy management and carbon reduction and providing the opportunity for more in-depth data analysis and future forecasting, and;
- the introduction of 'Beyond Carbon' on the Creative Green Tools, a new option for organisations to report on environmental action and engagement which goes beyond carbon and costs.



| Key data sources for 2015-18 annual reports  | Key data sources for 2018-22 annual reports  | What this tells us 2018-22  |
|--|--|---|
| Tracking annual NPO submissions of environmental impact data, environmental policies and action plans  | Tracking annual NPO submissions of environmental impact data, environmental policies and action plans  | Who is signed up to the tools and has reported on their environmental impacts and submitted environmental policies and action plans   |
| Analysis of annual environmental impact data submitted by NPOs and the resulting carbon footprint with a year-on-year comparison, whereby different numbers of organisations report on different impacts each year so not a like-for-like comparison | Analysis of annual environmental impact data submitted by NPOs and the resulting carbon footprint without a year-on-year comparison                                    | Who is reporting on which impacts, across which disciplines and activities<br><br>Combined environmental impacts and resulting carbon footprint of organisations which submitted data   |
| Analysis of energy use data from a core group of 136 organisations reporting consistently over time  | Consultation with 30 Spotlight organisations across 80 sites on energy management and monitoring and more in-depth analysis of their energy use data                   | Annual energy use, source, emissions and costs for the Spotlight group and how this compares to the whole group Spotlight 2018-19 baseline against which to track progress on achieving targets<br><br>Potential for future savings based on a zero carbon 2050 pathway |
| Annual survey of what NPOs think of the environmental programme, the support provided and the benefits of environmental action   | Annual survey of what NPOs think of the environmental programme and the support provided   | What NPOs think of the environmental programme and the support provided   |
|  | 'Beyond Carbon' a new option to report on environmental action and engagement and the benefits this brings   | Type of environmental action and engagement NPOs are undertaking and what benefits this brings  |
|  | More in-depth analysis of reporting across different activities and impacts e.g. outdoor events and business travel, to identify trends and insights, starting 2019-20 |   |

A summary of key findings from the 2018/19 tracking, environmental data analyses, annual programme survey and Beyond Carbon can be found [here](#).



## Carbon footprint calculation

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<sub>2</sub>), landfill waste releases methane. Each GHG has a different global warming potential, for example methane is 28 times greater than CO<sub>2</sub>e per unit of gas. Carbon dioxide equivalent (CO<sub>2</sub>e) is used to express the climate impacts of an activity in a single measure. CO<sub>2</sub>e emissions are calculated by applying **carbon conversion factors published annually by the government** for example kilogrammes (kg) CO<sub>2</sub>e per kilowatt hour (kWh) of electricity used, tonne of landfill waste or litre of petrol used. The conversion factors for UK grid energy reflect its carbon intensity, or the amount of CO<sub>2</sub>e emissions generated depending on the mix of fossil fuels, renewables and nuclear energy used.

The 2018-19 carbon footprint was calculated by applying the conversion factors published in 2018 to data on the most commonly reported sources of impact – energy use, water use and wastewater volumes, waste volumes and types, travel and transport distances and transport mode – submitted by 747 NPOs covering the period from March 2018 to April 2019. It excludes data on bottled gas and diesel, production materials and audience travel, given very low levels of reporting on these sources impacts and also the fact that what audience travel is reported is generally a rough estimate.

## Energy use, energy use emissions and spend

Total energy use is based on absolute electricity and gas consumption in kilowatt hours (kWh) reported for 2018-19 on the Creative Green Tools. This covers predominantly purchased energy and, in some cases, also on-site renewable energy (generally solar photovoltaic or solar thermal panels). The 2018-19 energy use figures, excludes usage of bottled gas and diesel (for generators) in litres, due to very low levels of reporting on this source of impact. The resulting carbon footprint is based on all electricity and gas kWh reported.

Total energy use for the Spotlight group is based on energy use data reported on the Creative Green Tools for 2018-19 and reviewed with each organisation to establish a more in-depth understanding of energy monitoring, usage and source. This covers absolute electricity and gas consumption in kWh, predominantly purchased energy but, in some cases, also kWh of on-site renewable energy and district heating. The resulting carbon footprint is based on all electricity and gas kWh reported, including district heating where reported. The latter represented about 1% of total kWh and 1% of the total energy footprint for this group.

Reported on-site renewable energy consumption currently represents about 1% of total kWh. This is most likely under-reported due to the difficulty experienced by some organisations in getting accurate data on on-site kWh generation as well

as on how much is actually used on-site and how much is exported to the grid. On-site renewable energy is considered to be zero carbon, so it does not contribute to the carbon footprint.

Energy spend for the whole reporting group and the Spotlight groups is based on kWh of electricity and gas consumption, applying average tariffs of 11 pence per kWh of electricity and 3 pence per kWh gas, referencing the Department of Business, Energy and Industrial Strategy's **'Prices of fuels purchased by non-domestic consumers in the UK'**. The cost of onsite renewable energy and district heating was is not covered.



## Potential savings

Potential savings are expressed as avoided energy use emissions and costs over time starting from 2018-19 and estimated by calculating the difference between:

- 1) cumulative energy use emissions and spend over time based on purchased electricity and gas under a 'business as usual' scenario i.e. no change in energy use and the carbon intensity of UK grid energy, and
- 2) cumulative energy use emissions and spend over time based on purchased electricity and gas and the pathway to zero carbon cultural buildings by 2050 identified through the Spotlight programme assuming:
  - a 2% annual reduction in energy use
  - electrification of buildings i.e. conversion from gas heating to heat pumps
  - continued decarbonisation of UK grid electricity

Both calculations assume constant electricity and gas prices of 11 pence per kWh and 3 pence per kWh respectively over time.

Installing heat pumps means eliminating the use of natural gas for heating and replacing it with a renewable source by extracting heat from the air or the ground using a compressor which runs on electricity. So, in the year when heat pumps are installed, natural gas use and cost will go to zero, and there will be an initial increase in electricity use and cost, as the compressor runs on electricity which is about four times more expensive than gas.

So, installing heat pumps will put on a limit on cost-savings in the short-term. However, heat pumps are about three times more efficient than gas boilers so the increase in electricity use will be limited, as it is only used to power the compressors and the remaining energy source – air or ground heat – is free and renewable. While there is uncertainty about future gas prices, it is likely they will increase and there is also a possibility that the government will mandate heat pumps.

## Spotlight target-setting

The energy and carbon reduction targets proposed for each Spotlight organisation were calculated based on their 2018-19 energy baseline using the **Science Based Targets** (SBT) methodology. Targets adopted by companies and organisations to reduce greenhouse gas (GHG) emissions are considered "science-based" if they are in line with what the latest climate science says is necessary to meet the goals of the Paris Agreement – to limit global warming to well-below 2°C above pre-industrial levels. SBT provides three approaches to target setting. The one used for Spotlight target-setting is the sector-based approach: the global carbon budget is divided by sector – in this case commercial buildings – and emission reductions are allocated to individual companies and organisations based on its sector's budget. Targets set are relative – kilowatt (kWh) hours of energy used and kilogrammes (kg) of CO<sub>2</sub>e from energy use, both per square meter of floor area.

## Other sources

A number of other sources were used to contextualise some of the figures in the 2018-19 environmental snapshot

- How many average UK households would 379,000,000 kilowatt hours power – 122,000 UK households based on average UK household electricity use of 3,100 kilowatt hours – [Ofgem](#)
- How many trees would it take to absorb 114,547 tonnes CO<sub>2</sub>e – it would take approx. UK 115,000 broadleaf trees 100 years to absorb or mitigate the portfolio's 2018-19 carbon footprint. The amount of CO<sub>2</sub> a tree will offset depends on many factors, such as the type of tree, where it is planted and the amount of room it has to grow. On average, one UK broadleaf tree will absorb in the region of 1 tonne of CO<sub>2</sub> during its full life-time (approximately 100 years) – [Carbon Footprint Limited](#) and [Green Energy Consulting](#)
- How many litres of water are used in the production of one cotton t-shirt – 2,700 litres – [World Wildlife Fund](#)

## Appendix 4: Resources

### Julie's Bicycle resources developed under Arts Council England's Environmental Programme

- [Environmental Policy and Action Plan Guidelines](#)
- [Effective Environmental Policies in Action webinar featuring Lyric Hammersmith](#)
- [Making Data Meaningful webinar featuring Donmar Warehouse](#)
- [Speaking Green: How to Share your Environmental Story webinar featuring the Royal Albert Hall](#)
- [How to buy sustainably sourced power – guide and infographic](#)
- [Greening your Capital Projects – What have we learnt? blog](#)
- [Greening your Capital Projects webinar featuring Wiltshire Music Trust](#)
- [Green Touring webinar featuring New Adventures](#)
- [Towards the Circular Economy guide](#)
- [Understanding the Circular Economy webinar featuring Modern British Conservation](#)
- [Five organisations bridging art and biodiversity in the UK blog](#)
- [Creative Spaces for Nature: Biodiversity, Habitats and Ecosystems](#)
- [Restoring Ecosystems Biodiversity webinar featuring Somerset House Trust](#)
- [Museums' Environmental Framework](#)
- [Museums' Environmental Framework webinar featuring Ironbridge Gorge Museums Trust](#)
- [The Spotlight Programme](#)
- [Spotlight peer-to-peer exchange day 2019 roundup](#)
- [The Accelerator Programme](#)
- [Accelerator peer learning event 2019 roundup](#)
- [The Colour Green podcast series](#)
- [Common Ground: Culture, Climate and Social Justice event roundup](#)

### Other Julie's Bicycle resources

- [Green Heritage Futures podcast series](#)
- [14 World Cities Tackling Climate Change Through Culture](#)

### Other resources

- Manchester City Council [Sustainable Events Guides](#)
- Kids in Museums: [How can your museum support children and young people to understand and respond to the Climate and Ecological Emergency?](#)
- [Powerful Thinking](#): an environmental think-do tank for the UK festival sector
- Powerful Thinking's [The Show Must Go On](#) bringing together UK research and analyses on the environmental impact of festivals
- Live Art Development Agency's study room guide [Take the Money and Run? Some Positions on Ethics, Business Sponsorship and Making](#)





# Arts Council England

The Hive  
49 Lever Street  
Manchester M1 1FN

Email: [enquiries@artscouncil.org.uk](mailto:enquiries@artscouncil.org.uk)  
Phone: 0161 934 4317

[artscouncil.org.uk](http://artscouncil.org.uk)  
[@ace\\_national](https://twitter.com/ace_national)  
[Facebook.com/artscouncilofengland](https://www.facebook.com/artscouncilofengland)

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Written, edited and produced with Julie's Bicycle. We are committed to being open and accessible. We welcome all comments on our work. Please send these to: Executive Director, Advocacy & Communications, at the Arts Council England address to the left.



COVER – Bournemouth Arts by the Sea: Acrojou Wheelhouse 2016. Photo © Steve Edwin

BACK COVER – In Between Time. Fog Bridge, Fujiko Nakaya. Presented in partnership with Bristol2015, Green Capital. Photo © Max McClure