Greening your capital projects 06/06/2019









Housekeeping

- Raising hands
- Asking questions
- Sharing presentations
- Recording content



Speakers

- Claire Buckley, Programme Lead Julie's Bicycle
- Beverley Dawson, Senior Manager Capital Arts Council England
- Lynsey Rowe, Senior Officer Capital Arts Council England
- Maud Saint-Sardos, Chief Executive Wiltshire Music Centre Trust



Aim: provide insights and practical examples to support cultural organisations on strengthening the environmental strand of their capital projects

Agenda

- Arts Council England capital team introduction
- Julie's Bicycle insights and examples from across the sector
- Wiltshire Music Trust experience and insights
- Q&A



Arts Council England's development and investment funds 2018-22

Our development and investment funds help us to target particular challenges, opportunities or gaps, creating the environment for further development to take place in the arts and culture sector. Ultimately, they help us meet the goals set out in our strategy, <u>Great art and culture for everyone</u>. Our goals, for reference, are as follows:

- **Goal 1:** Excellence is thriving and celebrated in the arts, museums and libraries
- **Goal 2:** Everyone has the opportunity to experience and be inspired by the arts, museums and libraries
- **Goal 3:** The arts, museums and libraries are resilient and environmentally sustainable
- **Goal 4:** The leadership and workforce in the arts, museums and libraries are diverse and appropriately skilled
- **Goal 5:** Every child and young person has the opportunity to experience the richness of the arts, museums and libraries

Julie's Bicycle

Our vision - a creative community powering environmental action

Our objectives

- support culture to meet the Paris Agreement target of limiting global warming to 1.5 degrees
- advocate for culture to inspire action on climate change and environmental sustainability

Daughters of the Curry Revolution by Afreena Islam, SICK! Festival (Photo by Tamsin Drury)

Our work to support greener cultural capital

Guides



Events



Building audits



Data and trends analysis



Band 3 energy programme



Given the scale and urgency of the climate and environmental crises we are facing – it is crucial to apply an environmental lens to the investments we make





What we see

- A lot of valuable learning and experience, but still not widely shared
- A lack of environmental data and/or understanding beforehand can make it difficult to set meaningful environmental targets and metrics and evaluate environmental improvements afterwards
- The need to plan for and build in more engagement and training on environmental options, systems, solutions etc.
- The best environmental solutions aren't necessarily the most high-tech or expensive

Greening cultural capital can bring a range of value and benefits

- reduced running costs
- increased resilience to climate change through e.g. flood resilience measures
- collaborations and partnerships e.g. internally across departments, with environmental groups, suppliers
- improved well-being e.g. through greener spaces, healthier materials
- Strengthening reputation by responding to people's concerns
- leading by example and demonstrating what is possible to employees, audiences, artists, local communities etc.





Be clear on what you want to achieve and what metrics you can use, even if environmentally sustainability isn't the primary aim of your capital project

- If your project has an explicit environmental aim
 - have a solid baseline where possible, especially on energy and carbon
 via e.g. energy audit, building user survey, flood resilience assessment
 - define targets and metrics which are realistic, understood and where relevant take expected increases in activity, space etc. into account
 - build environmental criteria into the brief, procurement etc.
 - allocate resource to monitor progress and evaluate outcomes
- If the environmental angle isn't so obvious think again
 - consider how environmental sustainability fits in with overall project aims e.g. creating new learning spaces, improving collection care
 - look at options to build in environmental choices e.g. using non-toxic materials and nature-based solutions to improve well-being and enhance working/performing/learning spaces
 - think about useful metrics e.g. % of sustainably-sourced materials

SPACE studio refurbishment

- 3 inter-connected investment aims
 - improving working conditions for artists
 - increasing building life span
 - reducing energy use and costs
- Investment in environmental and energy measures contributed to improving working conditions, increasing life span and reducing running costs
 - improving thermal performance via reroofing, cladding, draught-proofing, pipe-lagging, double glazing and green roof
 - new gas central heating
 - use of durable materials
 - low energy lighting and controls





Saving Trees The theatre aims to transfer a further 20% of its print production to digital downloads by 2022

Bright Idea We installed low-energy lighting



Grand Theatre Blackpool has achieved significant carbon reductions over the last six years through a range of investment and energy-saving measures despite adding new rehearsal space, offices and meeting rooms and increasing audience numbers



Be resourceful, creative and collaborative

- Look at what you already have and can use to help achieve your aims so you can spend money only where really needed
- Use your greatest resource creativity to find new ways of doing things e.g. avoiding the use of new materials, repurposing existing spaces
- Use your network and seek out peers, suppliers etc. who can help you establish your baseline, source or develop better environmental materials, solutions etc.





- Repurposed a disused warehouse, 4 tube carriages and 2 shipping containers into event spaces, a creative co-working community and a street art wall and gallery
- Much of investment through loans from ethical bank Triodos
- Succeeded in finding expert support to develop a green roof solution which
 - dampens concert noise
 - provides insulation
 - supports biodiversity
 - absorbs carbon emissions and other pollutants from the air
 - helps combat the 'urban heat island' effect
 - has become a place of well-being for staff and tenants



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GLYNDEBOURNE



Selling props of value, enabling reuse, and investing proceeds in new Production Hub

Other examples

- Opera North and Nottingham Playhouse collaborating with local universities to get support on understanding building performance
- Arnolfini Gallery's transformation of a disused concrete barge into a 'Ballast Seed Garden' on Bristol's Floating Harbour
 - collaboration with the University of Bristol Botanic Garden and Bristol City Council
 - new partnership with the Soil Association
 - created new event space for the gallery
- Contact and Paraiso School of Samba investment in electric vehicles and sharing experience with peers



Involve, engage, communicate

- Understanding and assumptions about environmental issues and solutions can vary widely – from funders, planners, contractors and suppliers to those who operate equipment, plant, vehicles or systems and work in, use or visit a space
- Different user needs, policy, regulation or budget responsibilities, perceptions of success and cost and interests may conflict with environmental aims
- Be clear from the start on who needs to be consulted, involved, trained, informed etc. when and how
- Create a shared understanding of what you are trying to achieve overall and where environmental sustainability fits in
- Identify what training, awareness-raising, knowledge, etc. you will need to get the most out of your investment and include in budget and planning



Choose your options wisely

- The best environmental solutions don't have to be the most technological, expensive or high profile
- Define clear criteria to assess environmental technologies, solutions and systems e.g. investment and maintenance costs, environmental benefits, technology risk, reputation, public profile
- Talk to others who have already tried out the options you are considering
- Plan and budget for training, support etc. on new technologies, systems etc.

Behavioural & procedural	Motivation and accountability of building users				
	Energy management – monitoring and targeting		IMPACT ON CO2	COST	PERCEPTION
		Environmental conditions	High impact	^	Dull
4	Controls, set points, scheduling, stability	Building orientation, fabric & form			
nergy demand reductions	Technological solutions,	Controls			
	efficient plant & equipment	CHP & renewables			
	Fabric improvements	Fuel Cells	Low impact	EEEE	EXCITING
Ξ	Low & zero carbon technologies				

1. Hierarchy of energy reduction interventions

2. Carbon reduction, cost and perceptions of low and zero carbon solution



CAPITAL WORKS!

Building transformation

Evaluation of Arts Council England's capital investment, 2012 - 2018

FINAL REPORT

February 2018 Dawn Langley, Susan Royce, Anna Dinnen Lisa Baxter (The Experience Business) Findings suggest that the most common technologies used are those that are cheapest and most easily installed

Of 14 types of technologies and solutions the most commonly adopted are:

- sustainable materials (often including LEDs)
- insulation
- photovoltaic technology
- green roof
- energy efficient cooling
- draft proofing
- ground source heating





Use key environmental principles to inform decisions and choices

- Less is generally better e.g.
 - using less energy in the first place vs. investing in zerocarbon energy source
 - reusing existing or reclaimed materials vs. purchasing new even if sustainably sourced
 - natural cooling vs. efficient new air-conditioning system which use refrigerant gases
 - repairing pipes and installing water saving devices vs.
 investing in rainwater harvesting
- Overall waste management hierarchy or 'buyerarchy' principles are a useful guide



Less energy, less fossil fuel, less emissions

- avoid e.g. use passive solutions (natural ventilation, daylight), eliminate refrigerant gases
- reduce e.g. insulate, use thermal mass, energy efficient appliances, low energy lighting, controls to adjust settings according to opening hours and use
- replace fossil fuels with low or zero carbon energy sources e.g. ground or air source heat pumps, electric vehicles



Less materials, less waste, better sourcing

- avoid e.g. use less materials in the first place or reclaimed and recycled materials
- choose better materials e.g. natural, renewable, non-toxic, locally or sustainably sourced, materials and systems designed specifically for reuse or recycling



Conserve water

- reduce e.g. repair and maintain storage tanks, pipes, taps etc. to avoid leaks, use water
- efficient equipment, plant drought resistant plants which require less water
- reuse and recycle e.g. harvest rainwater, use greywater



Protect and make space for nature

- use nature-based solutions e.g. living walls or green roofs which help with cooling and
- insulation, minimise surface run-off by and provide a home for plant and animal life
- protect create new spaces for specific animals and plants such as nesting areas, bat boxes and beehives

Greening your capital projects Q&A





