





Sustainable Cultural Mobility Becky Hazlewood, Julie's Bicycle 23rd July 2020

House Keeping

- Raising hands
- Asking questions
- Recordings
- Audience







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Culture and creativity powering environmental action

Our objectives:

- Support culture to limit global heating to 1.5 degrees
- Advocate for culture to inspire action on climate change and sustainability

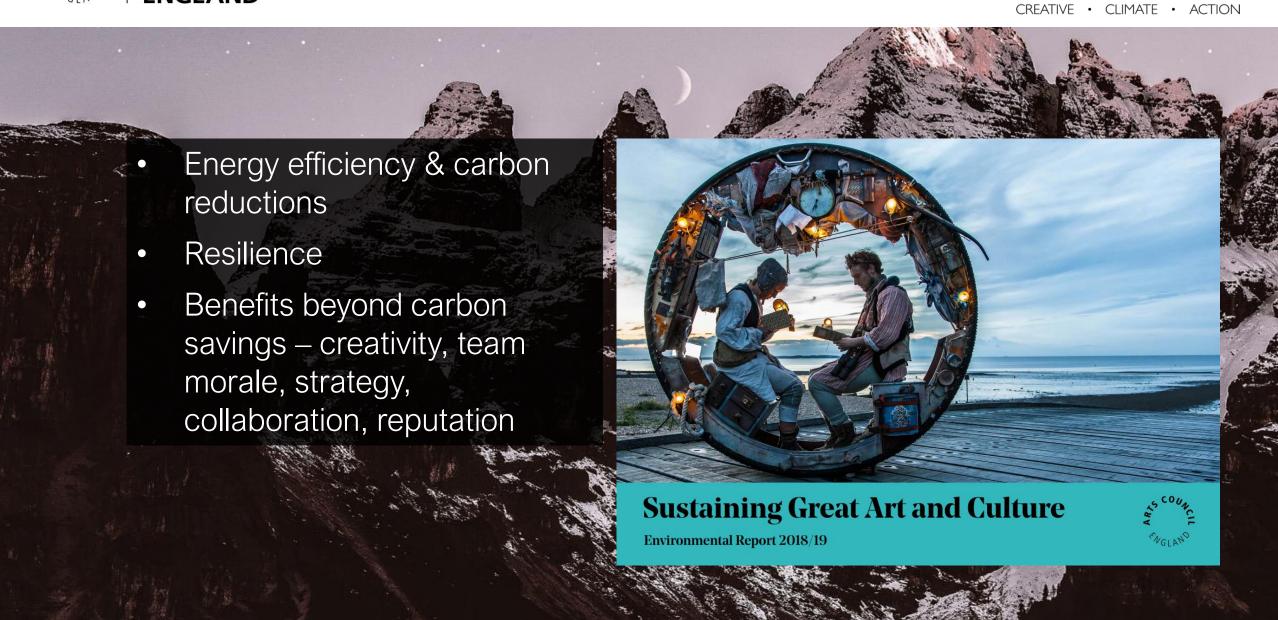






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A Just, Green, Cultural Sector:































- Decarbonisation i.e. an immediate, rapid and urgent reduction in greenhouse gas emissions to net zero;
- Circularity i.e. a regenerative economy decoupled from resource use
- Justice i.e. no person or place is left behind in the transition









Webinar Series Topics



Energy- climate action and science based targets

Sustainable Mobility

Biodiversity and Natural Heritage

Clean and Green Buildings

Sustainable Food Systems

Sustainable Industry- Digital

Pollution and the Creative Industries

Decarbonisation

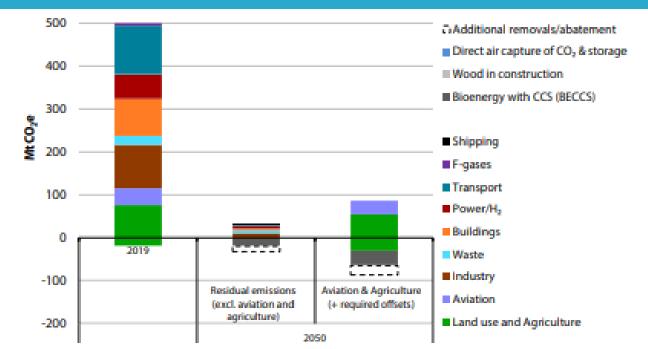
Justice

Circularity



Why Sustainable Cultural Mobility?

Figure 1.2. Net Zero means close to zero emissions for most sectors, with any residual emissions requiring the equivalent amount of emissions removals



Source: CCC (2019) Net Zero: The UK's contribution to stopping global warming and BEIS (2020) Provisional UK greenhouse gas emissions national statistics 2019.

Notes: Sectoral emissions and contributions from removals presented for the Further Ambition scenario. The contribution from 'additional removals/abatement' refers to the options to go beyond the Further Ambition scenario and achieve net-zero emissions, which can be achieved with additional removals and/or further reductions of positive emissions. Since our Net Zero advice, estimates for the Further Ambition scenario have been updated to take account of revised bioenergy soil carbon impacts. The current inventory captures less than 1.5 MtCO₂e of peatland emissions in the UK, but all sources of peatland emissions will be included in the inventory by 2022 at the latest. Estimates of all peatland emissions for 2019 are included in this chart.

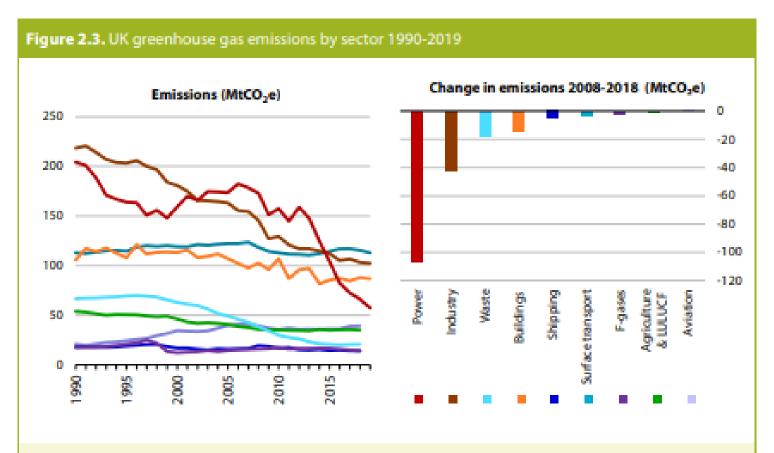
- Surface transport accounted for 24% of 2019 emissions- more than any other sector.
- On a European scale transport emissions need to reduce by 90% by 2050.





Where are we now?





Little to no progress made so far in reducing emissions from transport...

Source: BEIS (2020) 2019 UK Greenhouse Gas Emissions, Provisional Figures; BEIS (2020) 2018 UK Greenhouse Gas Emissions, Final Figures; CCC analysis.

Notes: The chart on the right-hand side shows changes in sectoral emissions between 2008 and 2018 for all sectors. Data are not temperature-adjusted.

Committee on Climate Change 2020

COUNCIL		2020s	2030s	2040s	Julie's Bicycle CREATIVE · CLIMATE · ACTION
«NGLAND	ELECTRICITY	Largely decarbonise electricity: renewables, flexibility, coal phase-out		se mid-merit/peak generation (e.g using y bioenergy with CCS	CREATIVE • CLIMATE • ACTION
	HYDROGEN	Start large-scale hydrogen production with CCS		e in back-up electricity generation, heavier stentially heating on the coldest days	
	BUILDINGS	Efficiency, heat networks, heat pumps (new-build, off-gas, hybrids)		d heat networks, gas grids potentially o hydrogen	
	ROAD TRANSPORT	Ramp up EV market, decisions on HGVs	Turn over fleets to zero-emission	n vehicles: cars & vans before HGVs	
	INDUSTRY	Initial CCS clusters, energy & resource efficiency	Further CCS, widespread use	of hydrogen, some electrification	
	LAND USE	Afforestation, peatland restoration			
	AGRICULTURE	Healthier diets, reduced food waste, tree growing and low-carbon farming practices			
	AVIATION	Operational measures, new plane efficiency, constrained demand growth, limited sustainable biofuels			
	SHIPPING	Operational measures, new ship fuel efficiency, use of ammonia			
	WASTE	Reduce waste, increase recycling rates, landfill ban for biodegradable waste		-bio wastes (e.g Deploy measures to reduce om waste water)	
	F-GASES	Move almost completely away from F-gases			
	GREENHOUSE GAS REMOVALS	Develop options & policy framework		ns, demonstrate direct air capture of CO ₂ , epending on progress	
	INFRASTRUCTURE	Industrial CCS clusters, decisions on gas grid & HGV infrastructure, expand vehicle charging & electricity grids	for hydrogen/electric HGVs, m	tially buildings, roll-out of infrastructure ore CCS infrastructure, electricity expansion	
	CO-BENEFITS	Health benefits due	Clean growth and industrial opportunities Committee on Climate Change 2020		



Shared Challenges

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- Public transport falling out of favour
- Increasing car ownership as people wary of using public transport
- Aviation rebounding- bail outs with insufficient green strings attached.
- Speed of infrastructure roll out- availability and cost of charging points for EV
- Uncertainty over viability of future tours and exhibitions
- Creating adaptable and fluid programmes for audiences and artists
- Understanding impacts of alternative fuels
- When and how to offset?
- Technology limitations
- Time zones





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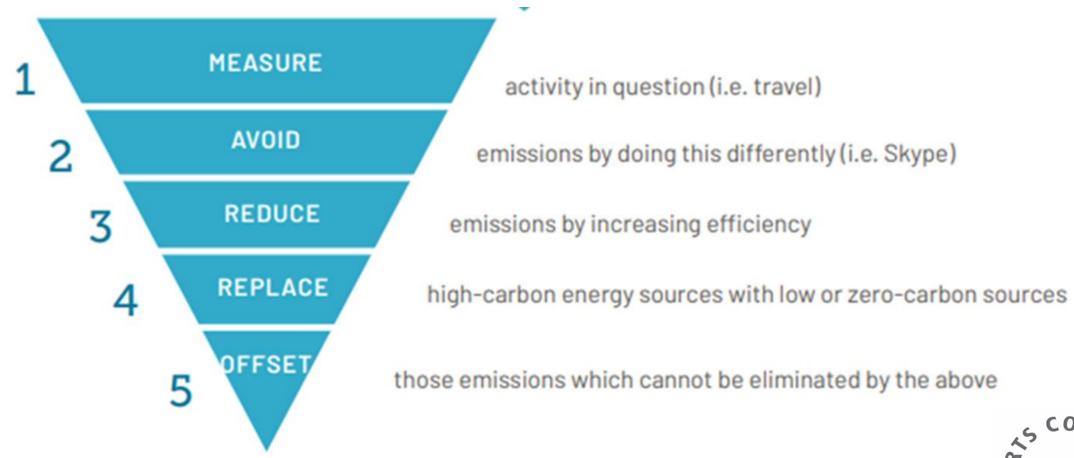
Cultural Mobility: Sector impacts



- Travel can form a significant part of a cultural organisation's overall footprint
- Audience travel can form a significant impact for some performances and events
- Emissions from air travel are particularly damaging for a number of reasons.



Five steps for reducing impacts of travel and touring

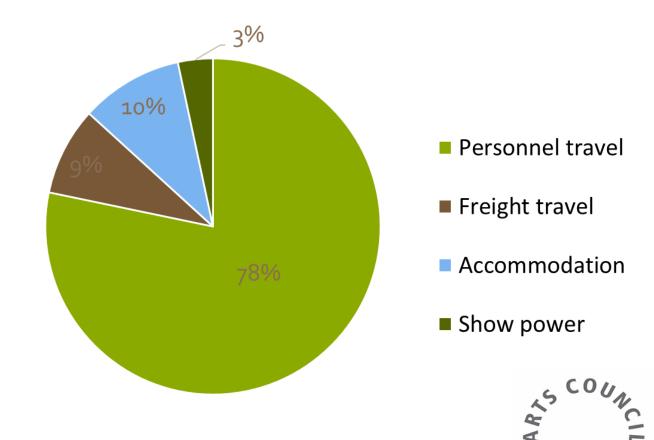




1. Understand your travel and touring footprint

- Collect quality data
- Understand high impact areas
- Look for opportunities to improve

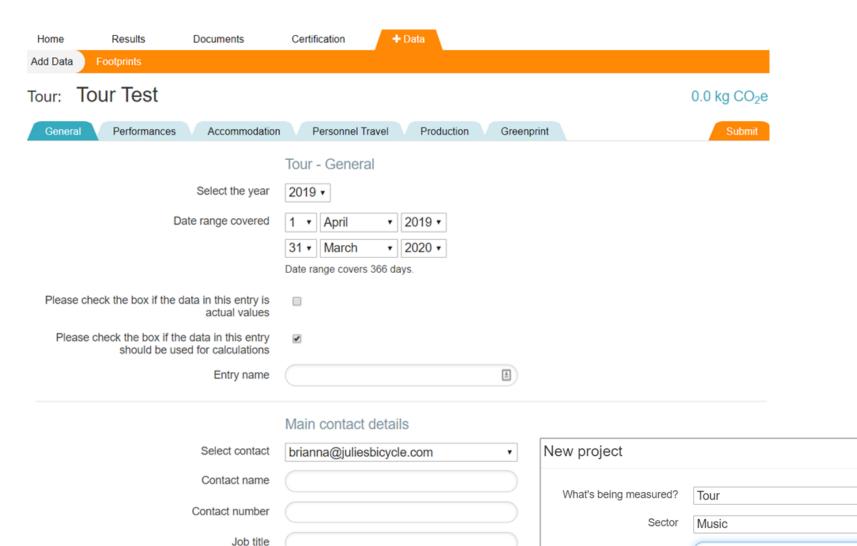
Area	Carbon Footprint (kg CO2e)
Personnel travel	15,436,149
Freight travel	1,310,099
Accommodation	1,526,046
Show power	519,651
Total footprint	15,436,149





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a) Methods for measurement: CG tools for touring



More information about the tour

Six fields for data entry:

- General
- Performances
- Accommodation
- Personnel travel
- Production
- Greenprint

Demo Music Tour

Cancel

Create new project

Project name



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Method 2) CG touring assessment





ASSESSMENT AREAS

COMMITMENT (PRE-TOUR)

- Environmental policy, green rider and action plan
- Integration of environmental sustainability in broader tour mission, strategy or design

UNDERSTANDING (PRE-TOUR)

- Breadth and depth of understanding of environmental impacts
- Tour planning and efficiency
- Attitudinal insights

- Environmental responsibilities
- Environmental procurement and sourcing
- Stakeholder communications and engagement

IMPROVEMENT (POST-TOUR)

- Post-tour carbon footprint
- Quantifiable reductions in direct environmental impacts
- Actions to address indirect environmental impacts
- Project evaluation

AVOID

Find ways of doing things differently!

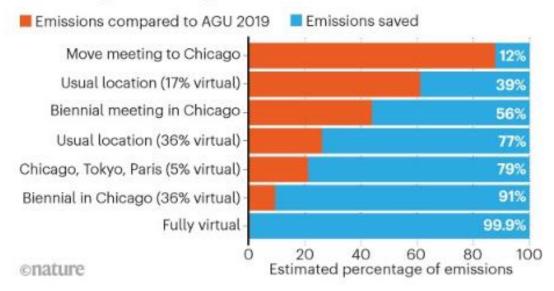


- Maximise virtual meetings
- Accessibility
- Collate
- Frequency of event



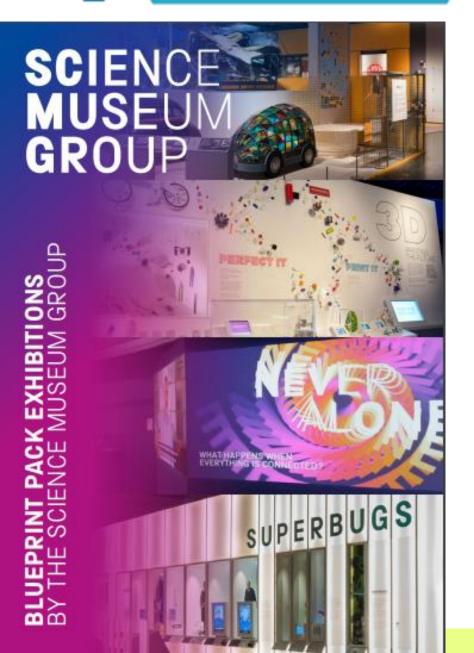
SHRINK THE FOOTPRINT

The travel-related carbon footprint of the American Geophysical Union (AGU) annual meeting is equivalent to the average weekly emissions of Edinburgh, UK (80,000 tonnes of CO₂ equivalent). It is the largest yearly conference in the field, usually held in San Francisco, California. Emissions could be cut by relocating the event; increasing virtual participation; holding meetings every two years; or connecting three venues using live-streaming.



Source: M. Klöwer https://doi.org/10.5281/zenodo.3553784 (2019)





Case Study: The Science Museum Blueprint Exhibition packs

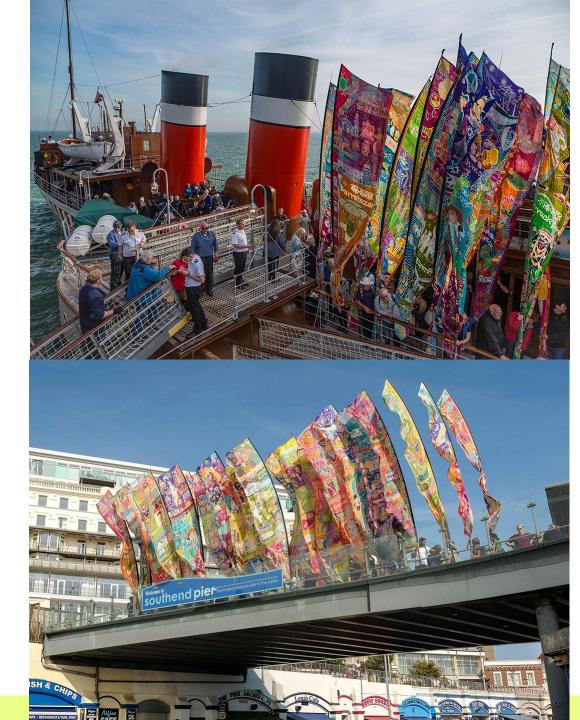
- Exhibition content shared electronically
- Blueprint packs avoid high transportation and insurance costs
- Allows receiving museums to build and design exhibition in line with their own budgets
- Provides opportunity to work with local stakeholders to reproduce the exhibition and take it in new directions.

AVOID

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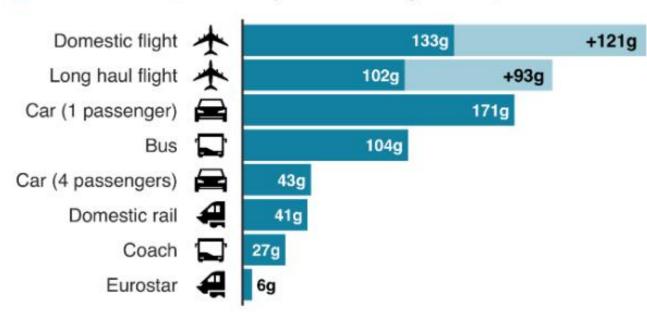




Emissions from different modes of transport

Emissions per passenger per km travelled

CO2 emissions Secondary effects from high altitude, non-CO2 emissions







Note: Car refers to average diesel car

Source: BEIS/Defra Greenhouse Gas Conversion Factors 2019





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REDUCE

Green Riders

Areas to consider:

- Audience travel
- Catering
- Energy
- Waste
- Production







TOP TIPS!



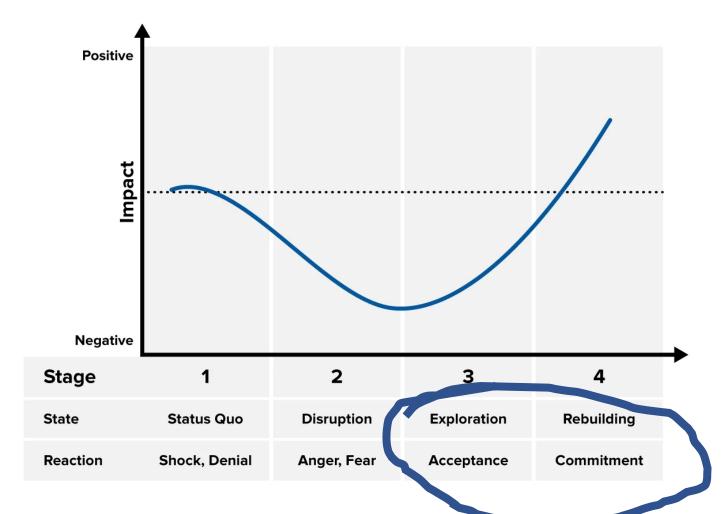
- Find the right person to engage
- Send info on environmental issues
- Work with venues to achieve environmental ambitions
- Share and celebrate successes!



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Mobilising Wider Societal Change



- Linking with LA/city programmes
- Creative programming that supports active travel
- Support and encourage long term sustainable behaviour change

Source: mindtools.com























THE DRIVE-IN ...BY BIKE!

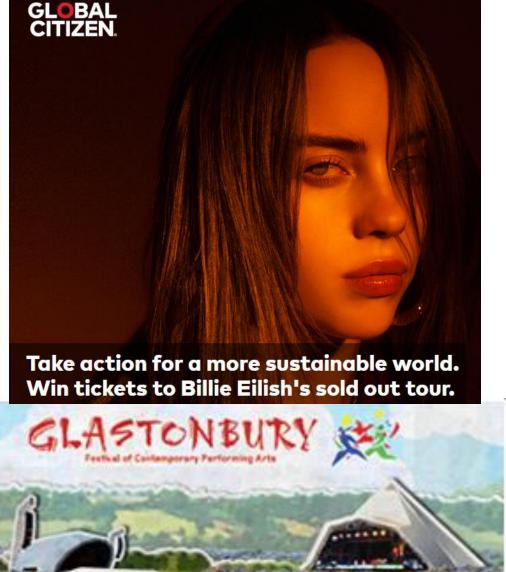
GREEN - SAFE - SMART -SOCIAL



Use your Voice: Engage your audience!







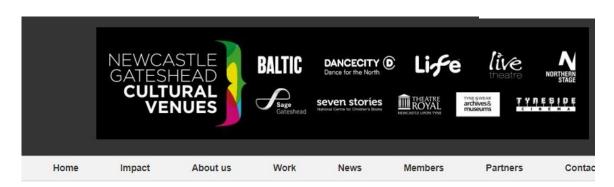


REDUCE



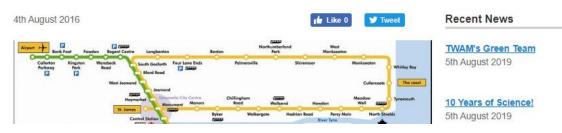






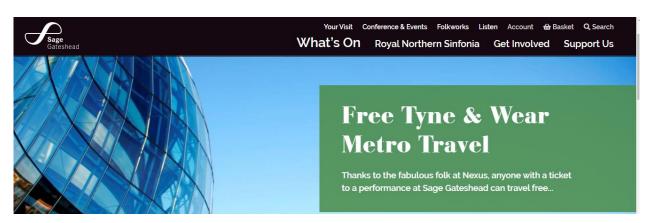
Home / News / Audience travel issues revealed

Audience travel issues revealed





- Surveys to understand audience barriers to using public transport
- Consider adjusting show times to fit with local public transport timetables
- Partner with service providers to offer incentives





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Artist Residencies: Saari Residence

- Support slow travel
- Ecological focus created in the residency through workshops, discussions and participatory activities

"Saari Residence will support slow travel while taking into account the considerations and challenges of accessibility. We will also consider ways of updating the everyday solutions applied at the Saari Residence so that they will support modern perspectives."

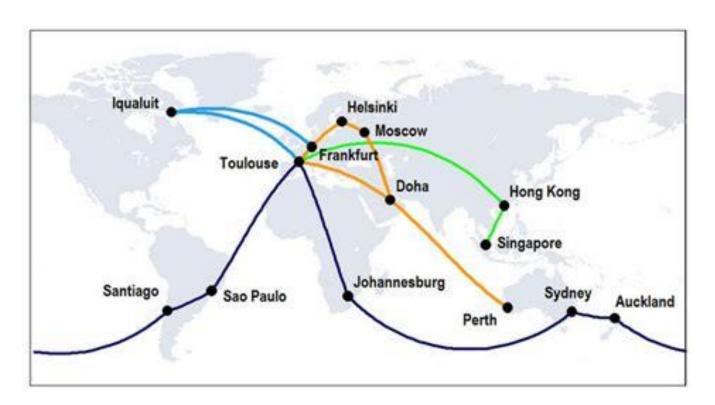


Step Travel Grant: prioritises sustainable land travel in grant criteria



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Tour routing and logistics







REPLACE

high-carbon energy sources with low or zero-carbon sources









Jack Johnson-Sustainable Biodiesel



• 6000 gallons of local, sustainable biodiesel was used to fuel tour buses, trucks and onsite generators.

• Used Sustainable Biodiesel Alliance guidelines.





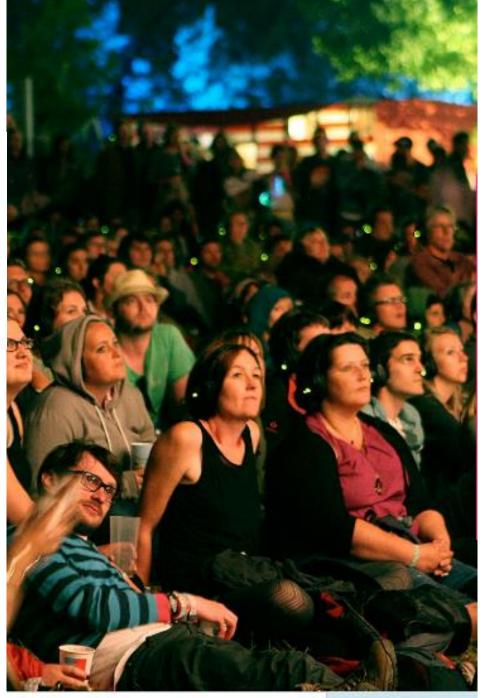


Case Study: Fuel Theatre

- Local partners
- 2 day travel windows
- Geographical planning
- Taking the work to the audience
- Cultural shift and behaviour change 'it's OK to be late'
- 2 electric vans
- Sets redesigned to fit vehicles
- Sparking a dialogue on sustainability with transport companies
- America by boat- a research experiment













• Offsetting is a way of 'balancing' emissions or addressing your production of emissions by investing in a project or initiative that reduces emissions elsewhere.

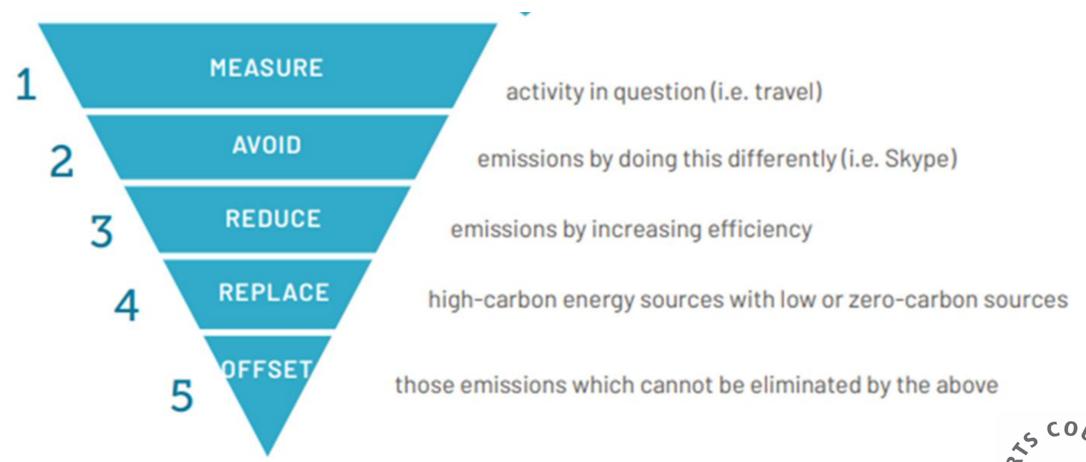






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Five steps for reducing impacts of travel and touring





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Different approaches to carbon offsetting



Option 1
Choose a
project or
charity to
donate to OR

Step 1 Calculate your emissions



Step 2
Assign a
price per ton
of CO2e

Option 2
Choose an
offset provider
OR

Option 3
Ring fence
funds for your
own
sustainability
projects

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Pros and Cons of offsetting

Pros

- Better than doing nothing (?)
- Encourages people to consider and understand their impacts
- Researching offsets and projects engages people in different environmental solutions and sustainable development issues
- Projects can support sustainable development and biodiversity conservation goals.
- Voluntary offsets can test innovation and inform future policy interventions



Cons

- Complexity- choosing a transparent offset method where investment goes to a viable project with positive environmental and social impacts
- Offset prices may not reflect true carbon costs
- Projects don't un- do the damage caused by emitting carbon and can take a long time to absorb carbon
- Encourages a mentality of continuing with BAU/ rebound effect







Looking Ahead: Technological Development









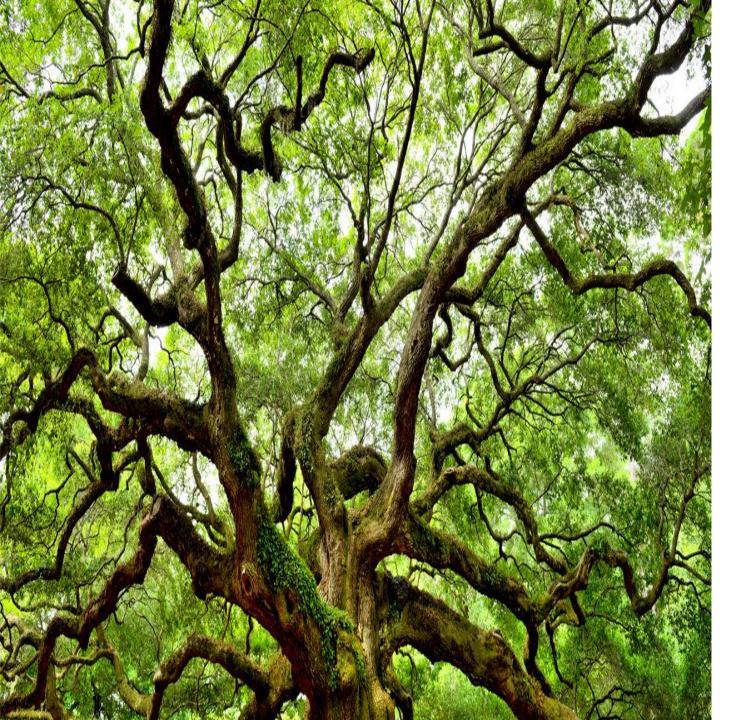


Summary Top Tips

- Measure and measure again!
- Embed your approach- policy
- Look for efficiency opportunities (vehicles, design, logistics)
- Mobilise your business model: experiment and create
- Be proactive- approach partners
- Speak to your audiences- gather data, engage, support change
- Do your research- especially for offsetting







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Next Webinar: Digital Creativity, Tuesday 25th August

Q&A

Please write questions in Q&A

