DELIVERING SUSTAINABLE EVENTS











AN INTRODUCTION



What is sustainability?

Sustainability considers the **social**, **financial** and **environmental** impacts – PEOPLE, PROFIT, PLANET

Sustainable development is defined "as development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (Brundtland Report 1987)







NO **POVERTY**



ZERO HUNGER



GOOD HEALTH AND WELL-BEING



QUALITY **EDUCATION**



GENDER **EQUALITY**







AFFORDABLE AND **CLEAN ENERGY**



DECENT WORK AND ECONOMIC GROWTH



INDUSTRY, INNOVATION AND INFRASTRUCTURE



REDUCED INEQUALITIES



SUSTAINABLE CITIES AND COMMUNITIES



RESPONSIBLE CONSUMPTION AND PRODUCTION



CLIMATE **ACTION**



LIFE **BELOW WATER**



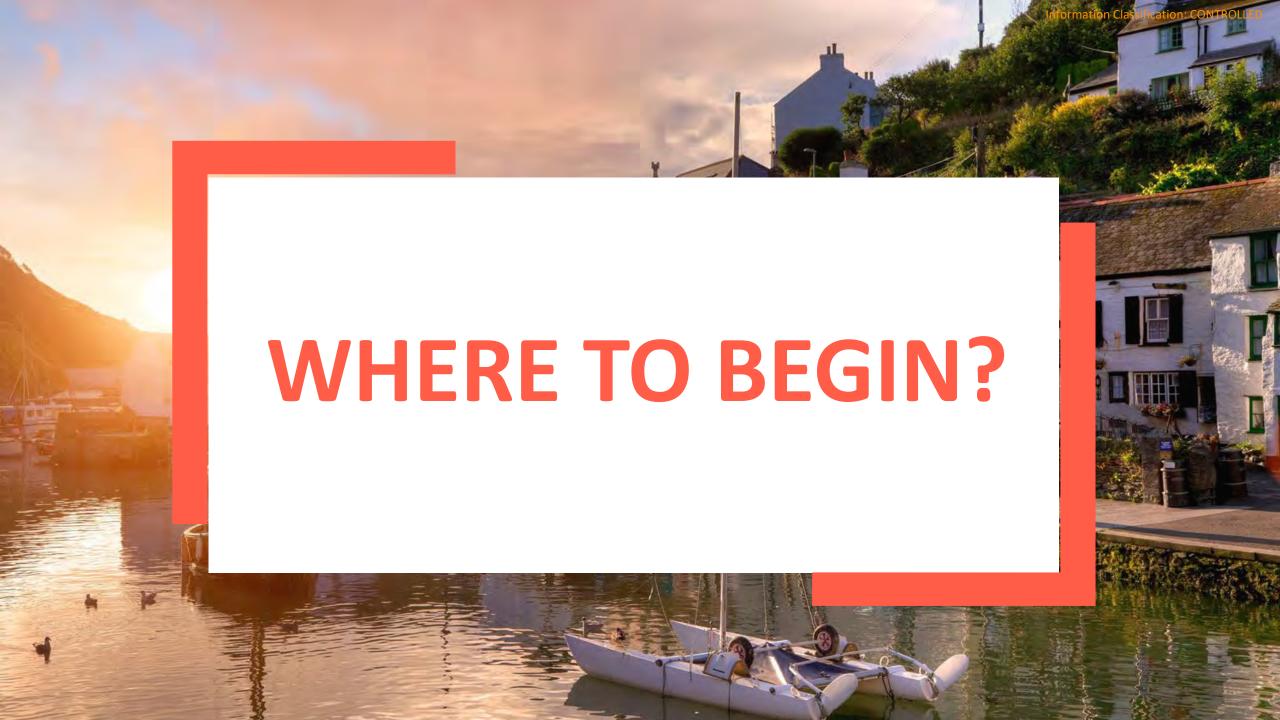
LIFE ON LAND



PEACE, JUSTICE AND STRONG INSTITUTIONS



PARTNERSHIPS FOR THE GOALS



Getting started

- A policy and an action plan
- You don't need to be an expert
- You DO need to get commitment and support
- Build in to everyone's job roles
- Start with the biggest impacts and/or easy wins



From the beginning

"80% of waste is created at the design phase" (Ellen MacArthur Foundation)

- Embedding sustainability from the beginning
- Lead the conversations with clients
- Link with the Client/brand/organisation sustainability priorities
 - Brand policies
 - Motivations of the lead
- Host a workshop to understand their priorities
- **■** Put in place policies
 - Google Next had a 'zero waste' aim which meant people got creative.



YOU are the choice architects

- A key principle in behaviour change is the principle of choice architecture:
- The layout, sequencing and defaults available to audiences guide how they will behave
- You have the **power as choice architects** to influence:
 - Behaviours
 - Social norms and expectations
- This is mainly done through your infrastructure choices
 - People will choose the easy option or the default
- DESIGN THE SUSTAINABLE PATH OF LEAST RESISTANCE





What are the impact and issues for your events?

- CARBON FOOTPRINT
- ENERGY
- TRAVEL
- WASTE
 - FOOD WASTE
 - PLASTICS

- WATER
- FOOD CHOICES
- MATERIAL CHOICES
- SUPPLY CHAIN IMPACTS
- MODERN SLAVERY/WORKERS RIGHTS
- NOISE POLLUTION
- LOCAL ENVIRONMENT & HABITAT
- LOCAL COMMUNITY

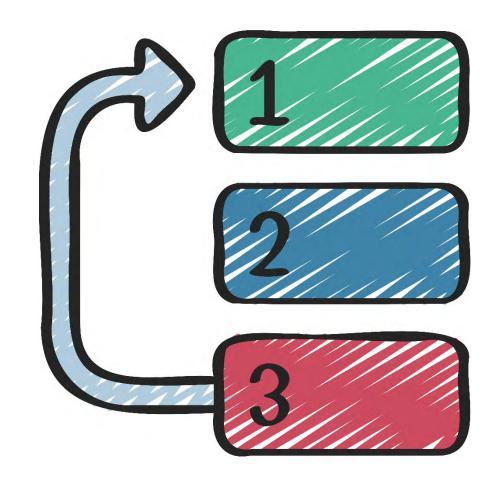
Identify the big impacts and easy wins

To avoid overwhelm when getting started, this exercise will help you identify where to start.

Good activity to do with clients and team to get them engaged

- Rate on a score of 1-5 for importance for the organisation
- Rate on a score of 1-5 in terms of level of control
- 1 = low and 5 = high

Items with the biggest score are the ones you start with first









































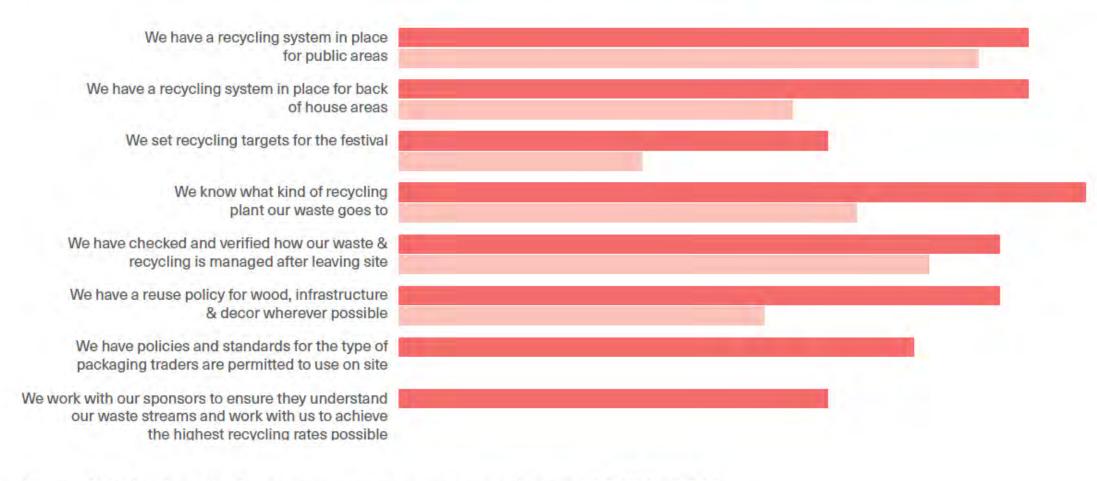




2019

2015

FESTIVAL ORGANISERS



Powerful Thinking industry green survey, comparison of 2015 to 2019.

The Waste Hierarchy

UK Law since 1990's



Waste management realities

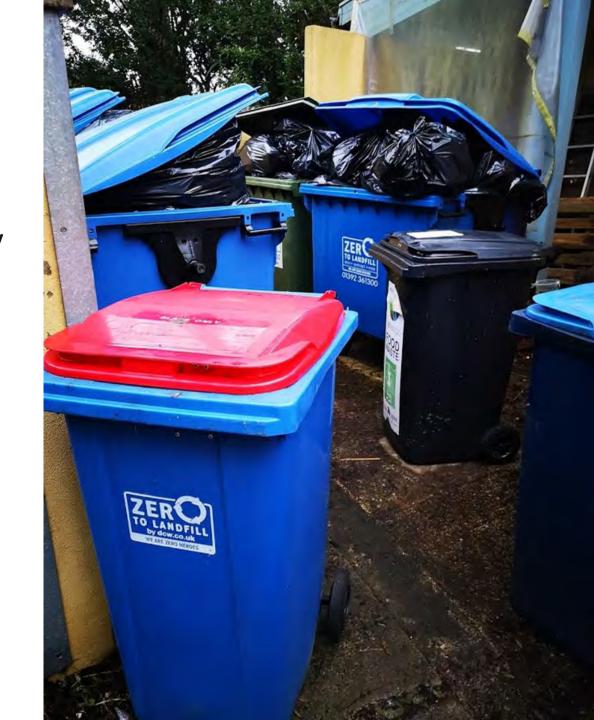
- 100% landfill diversion or Zero waste to landfill generally means waste to energy
- Waste-to-energy (W-t-E) is burning materials for energy
- Most general waste goes to W-t-E now rather than landfill
- We need to be thinking about W-t-E
 avoidance NOT zero waste to landfill
- Compostable materials require specialist composting and don't compost if they become litter



The 1 bin system reality

- Contamination for recycling streams
- Probably headed for waste-to-energy
- Ideally you need to have separate bins for:
 - Dry mixed recycling
 - Food
 - Glass
 - Coffee cups
 - General

Stands the best chance of being recycled





Going plastic-free

- 60 festivals participated on the '<u>Drastic on</u> <u>Plastic</u>' campaign to remove single-use plastic items.
- All Live Nation owned venues, clubs and theatres planned to end sale of single-use plastics by 2021
- SWITCHING TO ANOTHER SINGLE-USE ITEM HAS OTHER IMPACTS
- Glass = high carbon footprint and often downcycled
- Aluminium = high carbon footprint Plus 30% virgin materials for a new can, although infinitely recyclable and will get recycled in waste to energy
- Bioplastics can't be processed easily
- GOING REUSABLE IS THE BEST SOLUTION



Bioplastic materials

- Made from plants some GM crops
- Do not degrade if they become litter
- Cant be differentiated by waste contractors or compost facilities so they reject them
- Home compostable = the bin in your garden NOT the facility you send food waste to
- Industrially compostable = a specialist invessel composter by a special arrangement
 - Around 20 in the UK (nearest is Eastbourne or Swindon)
- If they go in general waste they get incinerated
- If they go in recycling they get incinerated
- If they go in composting they get incinerated





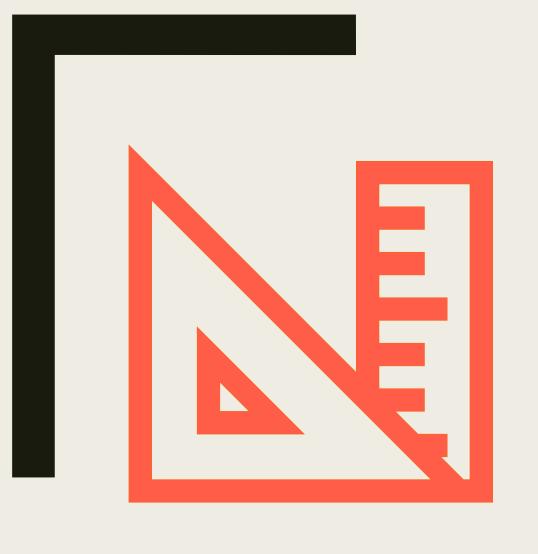
Reducing single-use packaging

- Shambala doesn't sell bottled or canned water
- Refill scheme highlights people can 'Bring a Bottle'
- Boston Tea Party phased out cling film and replaced with reusable containers for cakes
- Poco in Bristol challenged their suppliers to supply all their fruit, veg and salad leaves in reusable containers
- FSG sell a huge range of reusable food serveware which can be washed e.g food boxes and even pizza trays
- Reusable bar cups used at the RSC, UK festivals, sports grounds





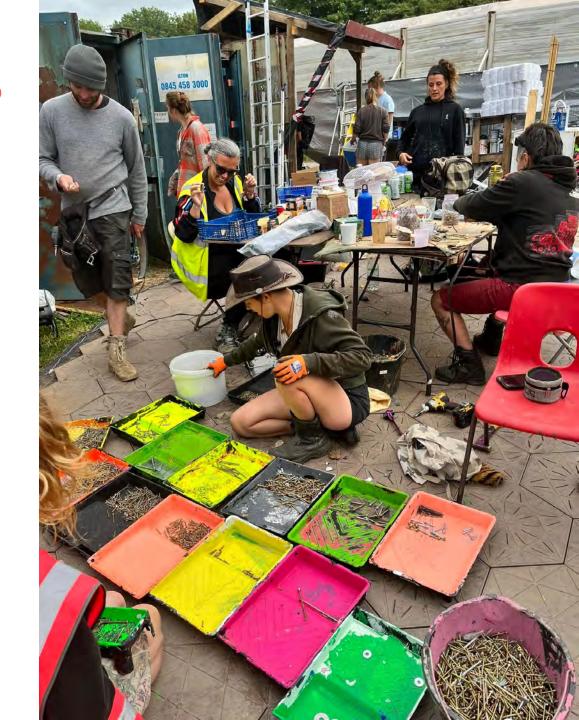




80% OF WASTE CREATED AT THE DESIGN PHASE

Reusable materials

- Design sets with reuse in mind Shangri-la at Glastonbury were taking everything apart and saving every screws!
- Build with screws not nails or glue to disassemble
- Hire in equipment e.g. scaffolding
- Plan what will happen to installation, sets in advance
 - Can it be shared
 - Used by students or schools?
- Don't date or put sponsors on signage



City-wide reusable cup schemes for takeaway

Shrewsbury Cup

- £1 deposit
- Return to any other coffee shop in scheme
- Cup is washed

Bristol Cup trial

- No deposit but a time-based penalty
- All ran through an app



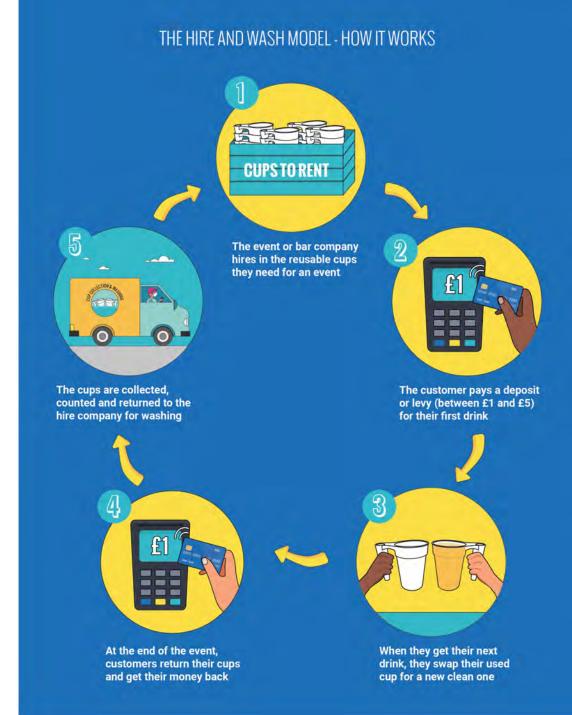


Reusable bar cup hire model

- Refill guide on how to deliver a reusable bar cup scheme
- Green Goblet, Stack Cup and many others hire in reusable bar cups to venues and take away to wash

Other hire items:

- Reusable hot drink cups (Hay festival used)
- Reusable plates (owned and used by Fire in the Mountain) with onsite washing stations



Benefits of waste reduction

- Cleaner site
- Avoid the littering tipping point 3 to 4 items of litter and it becomes the social norm
- Less litter-picking costs and bin emptying costs
- Hired items don't require storage or disposal



(Floor at Swingamajig festival)



ANY QUESTIONS



Bad bins...why?







Good bins....why?





Plastics and cans

General waste

Organic wa

General waste

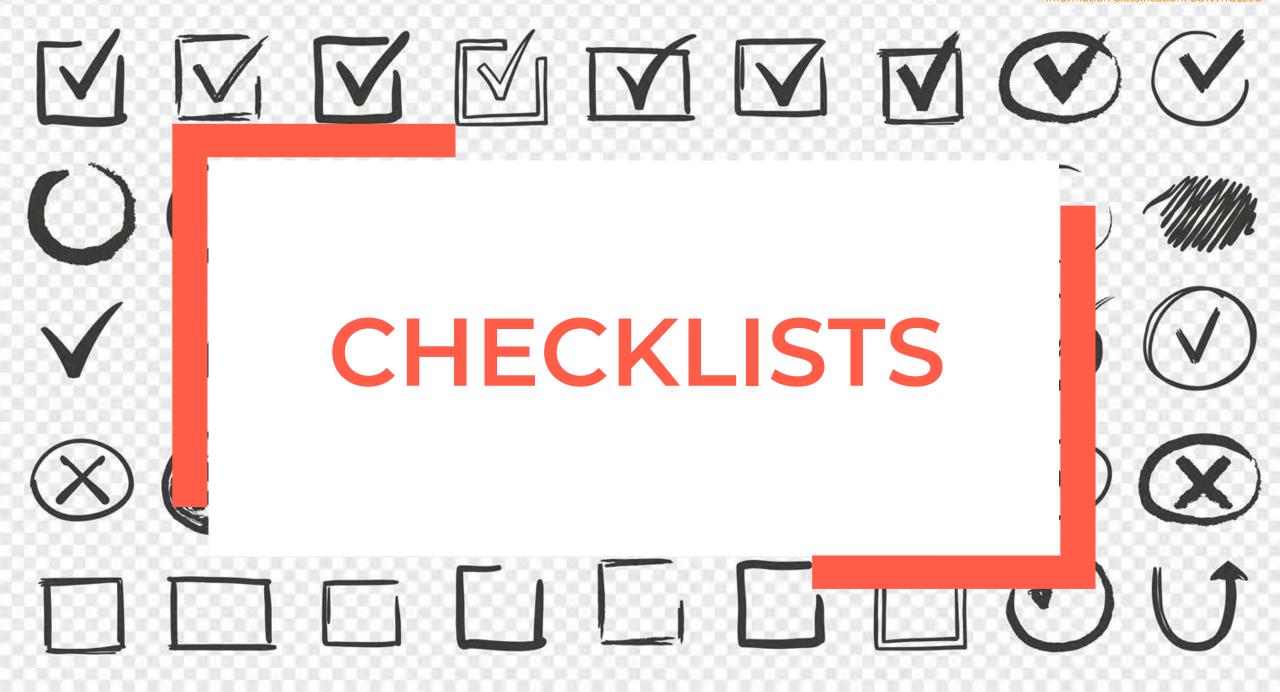
Think like your audience

- Drunk, busy, distracted
- Visual images of the actual waste streams at eye height
- Minimise access and aperture of bin opening
- Bin sets all together- people are lazy
- Use brand ambassadors to help sort waste











Action Plan

Impact area: Waste

Overarching Target:

Aspect	Aim	Actions to achieve this- look at the checklist for ideas	Who is responsible?	Deadline	Who needs to know
Sets	Design for reuse	Work with designers Hire in items			
Serveware	Switch to reusable bar cups	Explore how to wash and store Charge a deposit for cups			
Bins	Reduce recycling contamination	Increase bin waste bins Develop icon signage			

Waste action plan

What actions will you commit to for waste management in your action plan?

- Gathering baseline data
- Prevention methods Items to remove or ban
- Reuse options
- Recycling systems
- Bin management





Questions to ask



WHAT IS IT MADE OF?



WHERE IS IT COMING FROM?



WHAT IS IT DOING?



WHERE IS IT GOING?

LINEAR ECONOMY



TAKE MAKE DISPOSE

Circular economy

Resources:

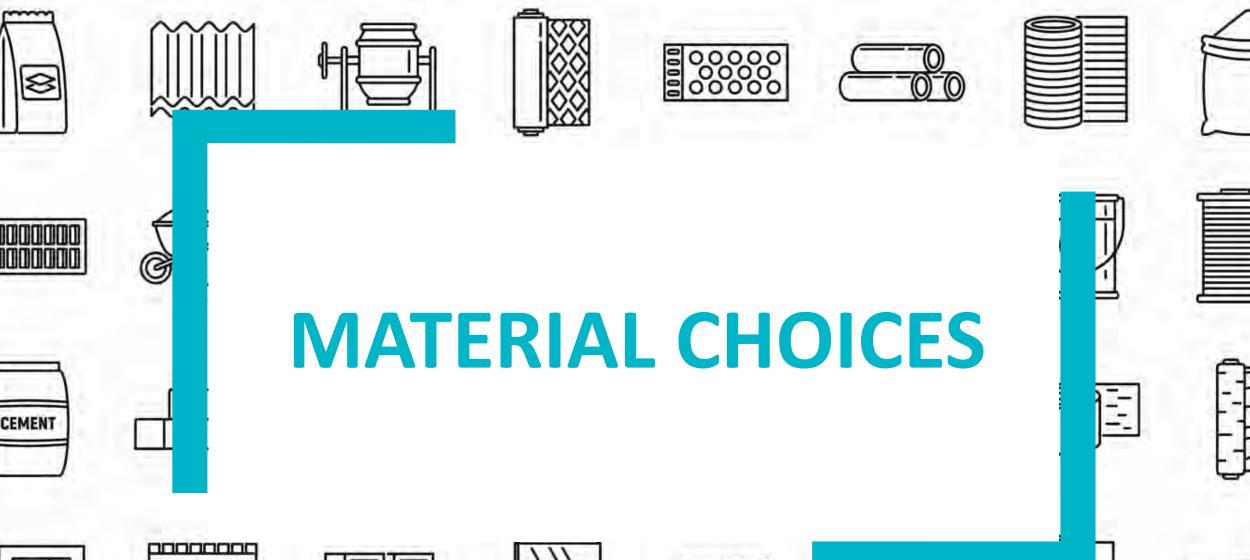
- What is the circular economy
- <u>Circular design</u>
- The <u>Circular Design Guide</u>

Circular economy goes beyond waste management

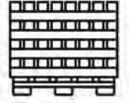
Considers regenerating **natural** and **social** eco-systems – regenerate communities.

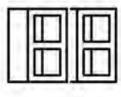
- Design out waste and pollution
- Extend the **useful life** of products and materials
- Design products for **reuse**, **repair and remanufacture**
- 4. Avoid materials with **chemicals or hazardous materials**
- 5. Reduce the materials that are required
- 6. Recycling is **not the priority** but an outcome

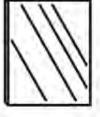






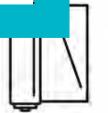




















Case study: Solutions for a Sustainable Art Practice

'Solutions for a Sustainable Art Practice' was a **three** month artist development programme.

The artist took two core materials of **wood and plastic** and learnt new skills and techniques:

- Worked with reclaimed timber and learnt how to plane rough wood
- Used techniques inspired by <u>precious plastics</u> to turn bubble wrap and plastic bags into sheets of plastic

https://juliesbicycle.com/resource/aphra-shemzaocean-rise/



Graphics

Reuse:

- Digital signage
- Don't date or brand signage

Recycling

- Cardboard still single-use
- Single polymer plastics e.g. Smart-X are easier to recycle than mixed polymers but need a takeback scheme or specialist recycling

Hard to recycle or process

- Most graphics made from polyester and foamboard
- Biodegradable vinyl/shrinkwrap wont biodegrade in landfill. If it goes in venue skips it will be incinerated (W-t-E)



Flooring

Reduce

Only cover accent areas

Reuse

Hire in carpet tiles and ecotiles

Recycling

- Recyclable carpet is not circular as can't be turned back into carpet
- Need to ensure a supplier offers a takeback scheme, as can't be recycled by general waste contractors



Fabrics

Reuse

- What can be designed for reuse and storage
- Look for local institutions that can use them after you

Recycled

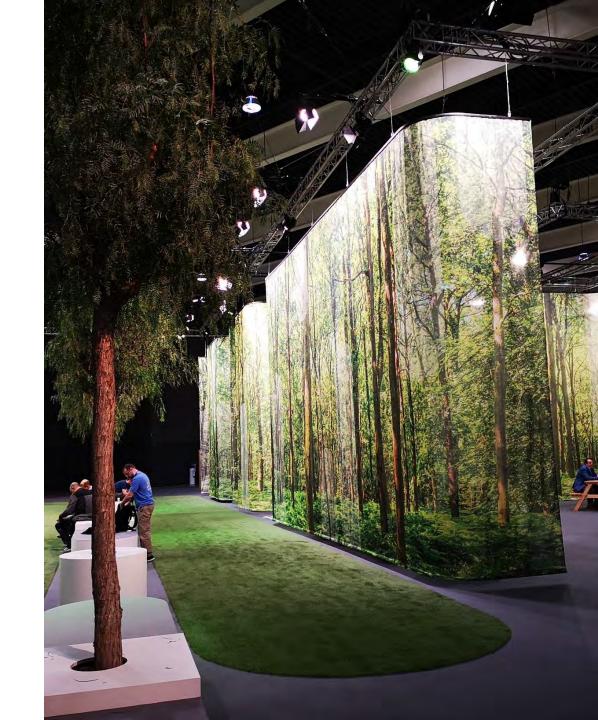
■ Look for recycled options

Be aware:

- Recycled plastic bottle polyester is stopping circular economy of plastic bottle recycling
- Some only have to have 10% ocean plastics to be described as being made from ocean plastic

Non-toxic

 Choose non-toxic materials where possible e.g. organic



T-shirts and clothing

Reuse

- Request staff wear a plain item
- If you need branded uniforms at all:
 - Design for reuse
 - Collect, store and wash for reuse

Non-toxic

Request organic cotton

Be aware

- Fashion industry is the second largest polluter only to oil
- Slave and child labour is riff
- Water footprint:
 - It takes 2,700 litres of water to make a t-shirt
 - Cotton industry has destroyed the Aral Sea

Brands to use:

- Rapanui
- Earth positive



Sustainable merchandise

Prevention

- Check out virtual event bags!
- Meaningful brand engagements

Recycled materials

Most recycled material items can't be recycled again



What materials to choose?

- Just because it has the word bio, compostable or eco in title don't trust this
- Does your venue or clients have the waste management option required to dispose of it?
- Adopt circular economy principles
- Use your values or priorities as a guide
 - Carbon impacts
 - Waste reduction
 - Human welfare

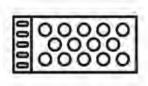


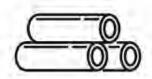


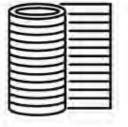


















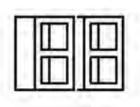




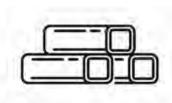


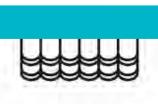
















Environment: Certifications and standards to look for

- Environmental policy
- Waste policy
- Climate declaration/carbon reduction
- Material sourcing and supply chain policy
- ISO14001 or equivalent







Social certifications and standards

- Third party auditing of factories
- Freedom of association (unions)
- Modern slavery policy
- Child labour policy
- H&S policies and procedures
- Living or fair wages
- Fair working hours

















Materials action plan

What actions will you commit to for materials management in your action plan?

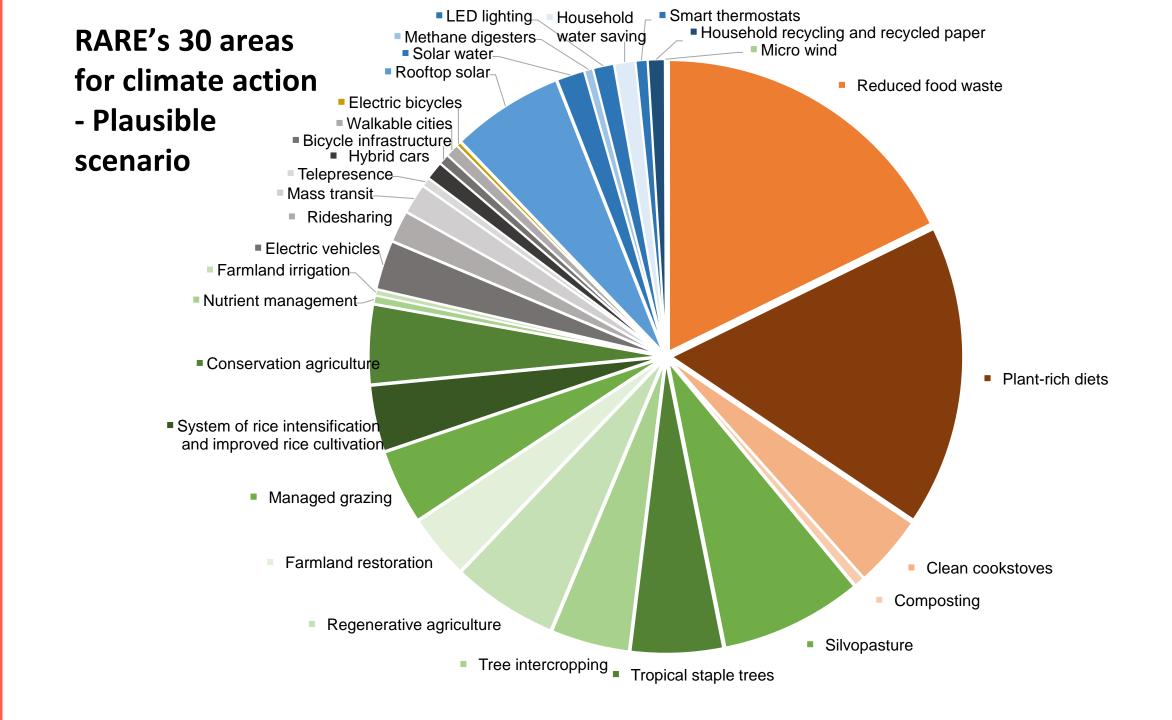
- Gathering baseline data
- Design specifications
- Adopting the circular economy
- Reuse options
- Certifications and standards



5 mins







Food waste reduction

- Chef's Eye food waste reduction pilot
 - Actions taken following data recording:
 - Reducing producing of deserts and salads
 - Removing certain dishes and menus
 - Retraining chefs to trim veg differently
 - Making muffins into cakes
 - Making serving spoons and plates smaller
- At Shambala Festival going meat and fish free significantly reduced the amount of bread waste as less stalls selling burgers in buns



Lowering meat content

- BECC Conference made the default choice vegetarian on the booking form. Had to change to meat- 20% choice meat
- Doubling the proportion of vegetarian meals offered increases vegetarian sales by between 41% and 79% 2 in 4 menus items in a Cambridge study
- Improving the visual presentation of vegan and veggie options on a buffet e.g. a display of vegetables and olive oil around it increased sales
- Putting meat at the end of a buffet after all the salad and carbs means less space on plate
- Shambala went meant and fish free in 2016 and attendees voted to keep it that way, now milk free







Criteria for traders

- Shambala has a Traders Bible. Traders have to meet the essential criteria to trade.
- Extra points in the Trader Awards if they are doing the desirable things

Requirements

- Fairtrade
 - Tea, coffee, chocolate
- Free range eggs
- European or seasonal fruit or veg
- Non-toxic cleaning products
- No Coca cola or Nestle

ESSENTIAL SUSTAINABILITY CRITERIA

If you have a camp kitchen at Shambala, please ensure you follow our sustainability procurement criteria and standards.











GERTIFIED FAIRTRADE OR EQUIVALENT
We do not allow sale of Coca
Cola or Nestle products
onsite!
OREANIC AND FAIRTRADE





CAN BE USED ON SITE

Soya milk must be sourced from within the EU and be organic.

NO ALMOND MILK

Certifications and specifications

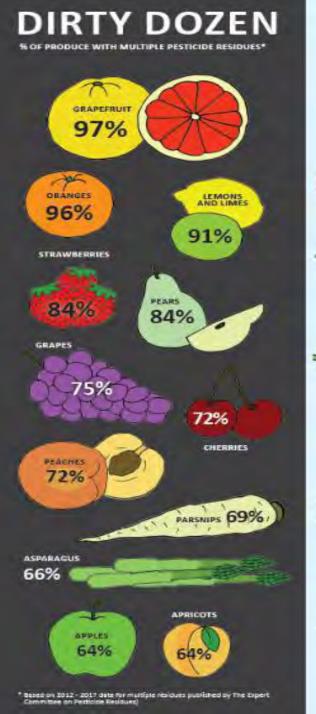
- Fairtrade
 - Fairpay and working conditions
 - Equal rights for women and men
 - Organic and climate change mitigation practices
- Rainforest Alliance
 - Created by the big brands so some question around this one
- Organic
 - How food is reared, grown and packaged
 - Traditional methods to help soil fertility & control weeds
 - Better for health, wildlife and animal welfare
- Local and seasonal

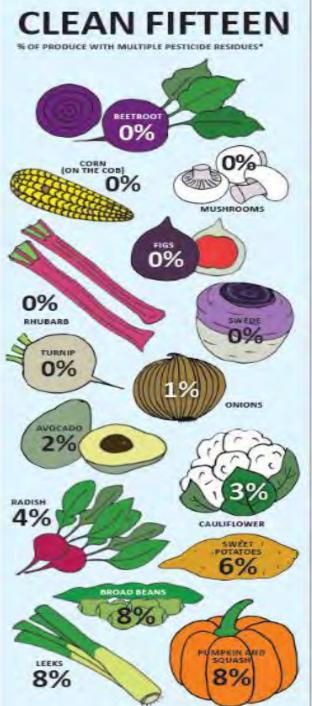














Food action plan

What actions will you commit to for food in your action plan?

- Food waste management
- Plant-rich menus
- Certifications and standards
- Food packaging (if not covered already)
- Certifications and standards



5 mins



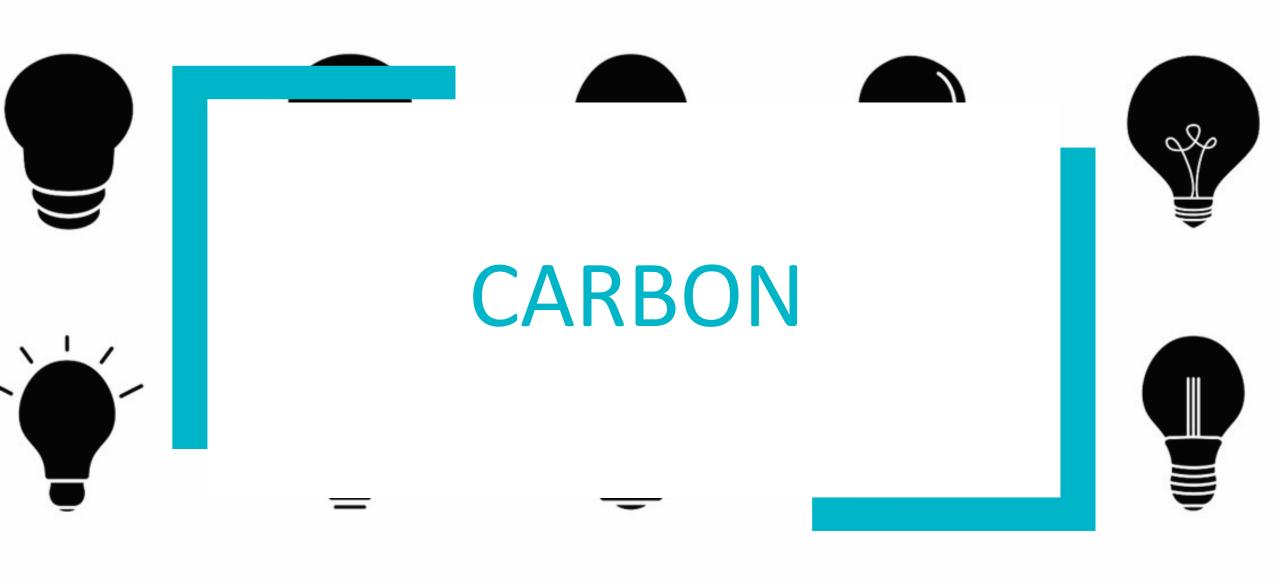












Carbon footprints

- Everything has a carbon footprint
- Energy usage and travel = biggest footprint for most events
- Good practice to monitor and measure impacts to identify opportunities for change AND where your activity is making a difference

Event carbon & impact monitoring

- <u>Julies Bicycle</u> is free and covers energy, travel waste, water,
- TRACE is for corporate events and covers the above plus meals and digital output



Climate action in the arts sector

- 850 galleries have joined the <u>Gallery Climate Coalition</u> commitment to reduce emissions by 50% in 10 years
- Sustainable Arts in Leeds have a plan to be 'net-zero' by 2030
- LIVE have a <u>Live Green</u> commitment to be net-zero by 2030
- Tour production group have a 10 point request list for venues and tours
- The Green Theatre Book is an initiative with 3 tiers or actions for theatres
- Culture Declares 1750 arts orgs have declared a climate emergency
- Green works offers carbon literacy training for Cornwall

Venues taking action

- Spotlight group (30 orgs over 80 sites) working with Julie's Bicycle to reduce their carbon emissions
- One venue HOME Manchester
 - Rooftop honey bee hives
 - Sustainable procurement plan
 - Carbon literacy training
 - Creative programming

Spotlight

The Spotlight group – 30 organisations across 80 sites – is working closely with Julie's Bicycle to achieve measurable reductions in line with the goals of the Paris Agreement – limiting global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C.

The Spotlight group has reduced its Scope 1 and 2 carbon emissions by 18%

On average, the Spotlight group exceeded their targets for energy consumption and carbon emissions.

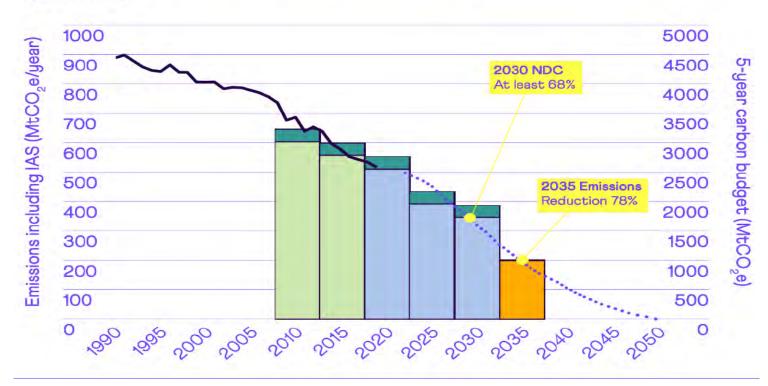
Spotlight performance



Net-zero targets

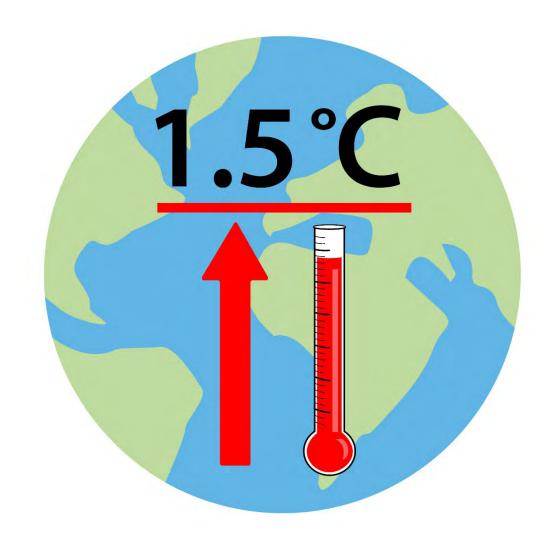
"Net zero refers to the balance between **the amount of greenhouse gas produced** and the **amount removed from the atmos**phere. We reach net zero when the amount we add is no more than the amount taken away" <u>The National Grid</u>

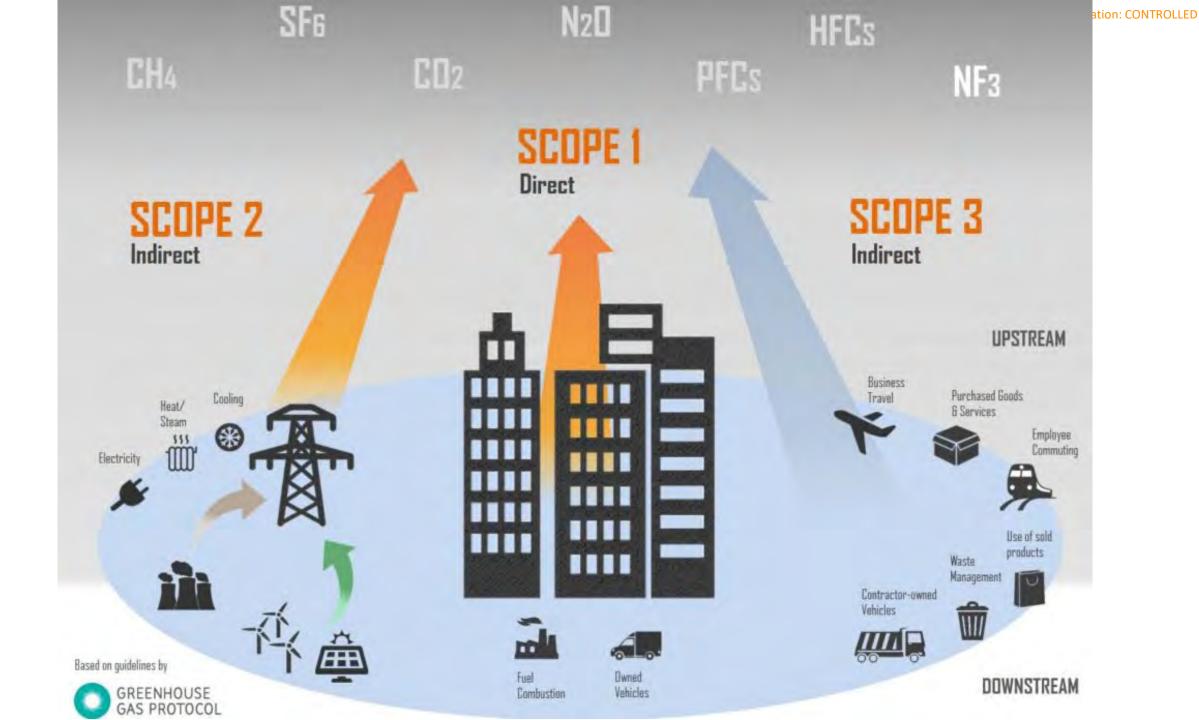


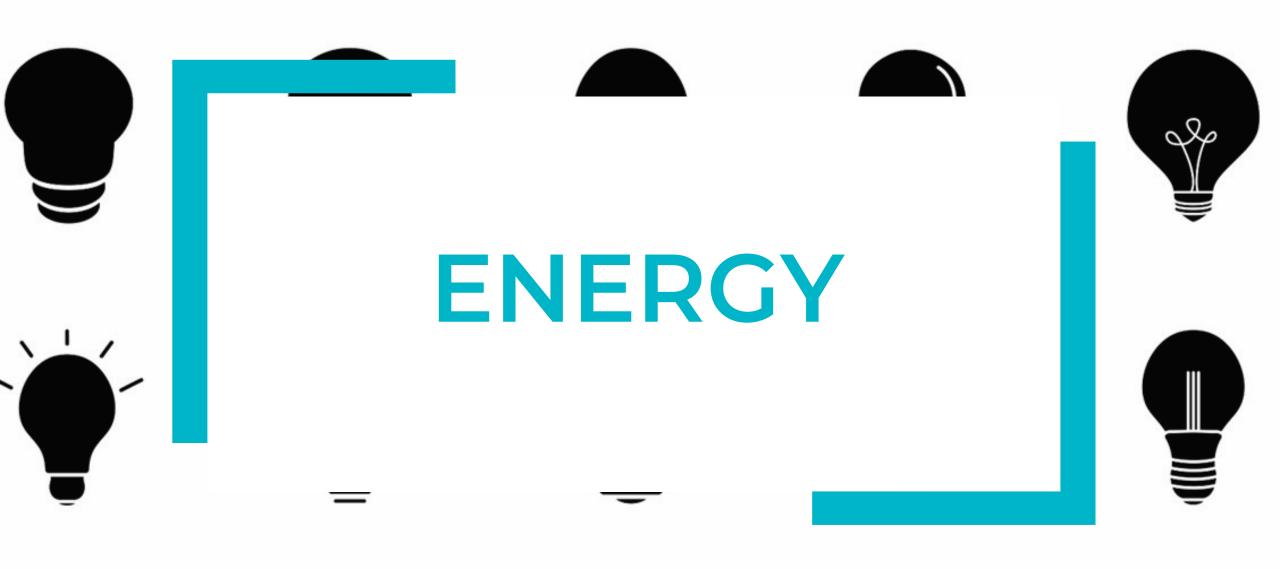


Science-based targets

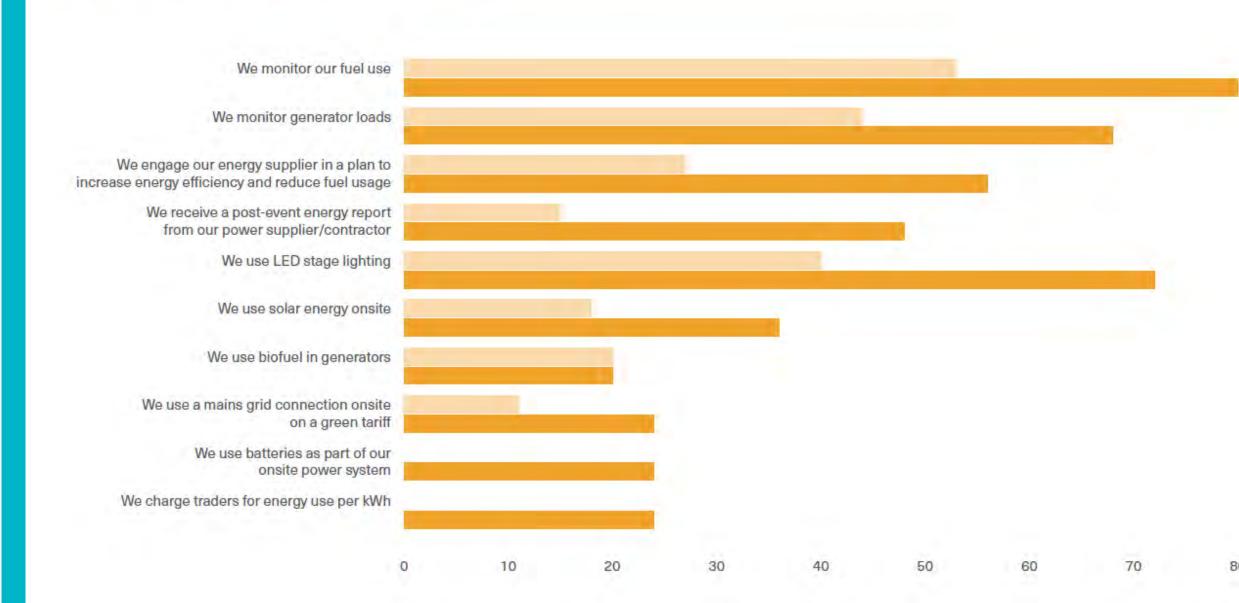
- 1.5' trajectory as agreed at the Paris Climate talks in 2015 (COP21)
- Large organisations have a year to set their targets
- For <u>SME's 50% reduction</u> on scope 1 and 2 and a commitment to address scope 3







RESULTS FROM POWERFUL THINKING'S INDUSTRY GREEN SURVEY, 2015 VS 2019



The power management hierarchy

- **Prevention** Do you actually need power in this location or for this application
- Efficiency Use less power and us it in a more fuel efficient way
- **Sourcing** Can you use mains instead of generators? Can you use renewables?
- **Hybrids** Can the system be backed up or bolstered by battery technology?
- Alternative fuels can you use HVO or other sustainable fuels?
- **Diesel generators** only when there is nothing else



Energy usage at outdoor events

Generators

- Generally generators are over-specified by the contractor
- Need to run at 60-80% of capacity for fuel efficiency and engine protection

Mains grid energy

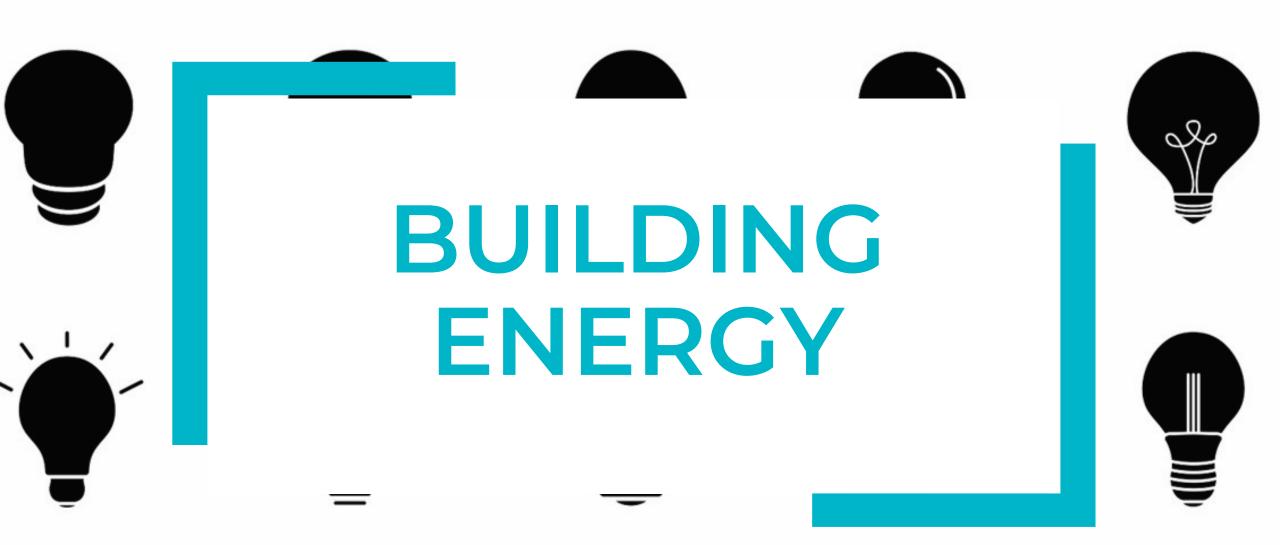
A generator produces **6.675kg** of Co2 per KWhr Vs

Grid (mains electricity) **0.2773kg** of Co2 per KWhr

Alternative's to diesel generators

- Pre-loaded battery packs
- Hybrid battery and fuel combos
- LPG generators
- Hydrogen fuel generators
- Plan your site around power areas rather than vice versa to maximise on capacity and load



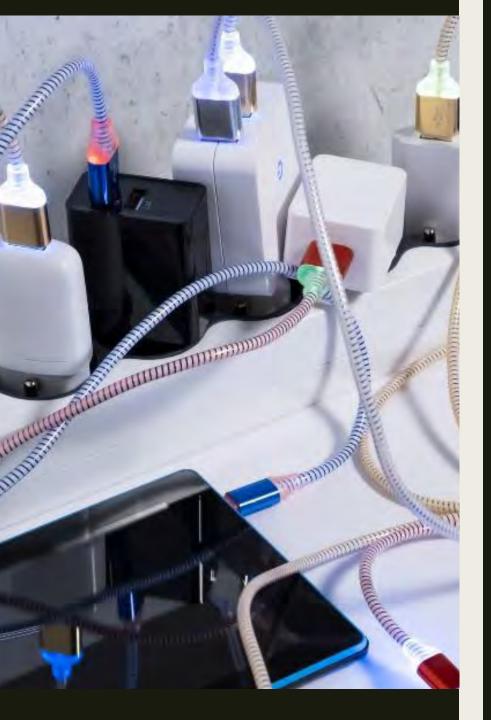




Case study: Watts Gallery Artist Village

Watts Gallery Artists Village, has had a big focus on energy:

- From improving insulation, window glazing and solar shading
- Installing new high efficiency boilers
- LED lighting
- Using passive/low energy ventilation.
- The venue is also supplied by on-site renewable energy via ground-source heat pumps and a solarthermal hot water system.



Case study: Idling equipment in a GP surgery

- A GP surgery discovered through energy monitoring that these items still use electricity:
 - Electrical items in shut down or sleep mode
 - Chargers still ON at the wall
- The surgery created an 'Electrical Responsibility Plan' where:
 - Items were put on extension leads to make it easier to switch off
 - All rooms were shut down at the end of each day

Baseline measurements taken in Oct 2020 and repeated in Oct 2021 found savings of:

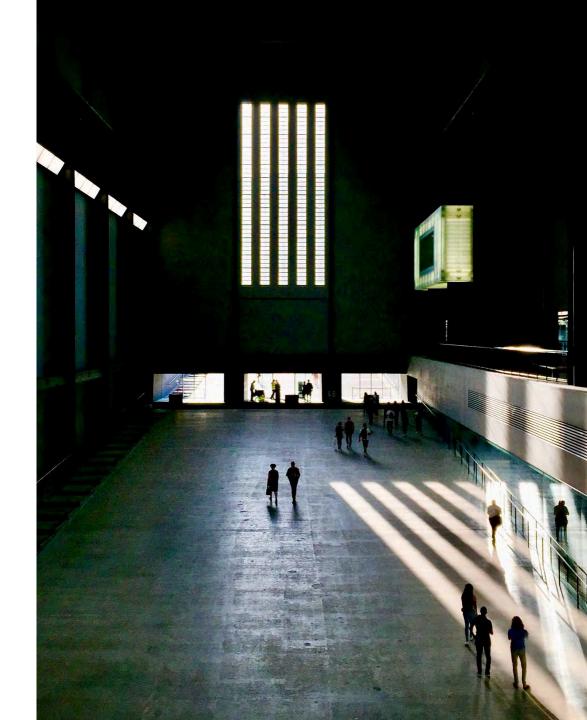
29.7% reduction in energy usage

1.6 tonnes of CO2

£1,220 per year (assuming 15p per KWH)

Micro-climates for art work

- Just one of Tate's structures alone has the carbon footprint equivalent of <u>28,000</u> homes, (and this is after a 40% reduction)
- 24 hour heating and cooling for art work
- In fact only 5-10% of art objects need that level of care.
- Creating microclimates in frames and cases can reduce 24% of energy reduction



Prioritising energy efficiency appliances and settings

- Switching to energy efficient LED lights isn't the only think to consider
- Items that use the most energy are those that are:
 - Hot to touch
 - Heat or cool
 - Where water is involved or they move water



Renewable energy suppliers

- Renewables are not at the top of the energy hierarchy
- Can lead people to consume more thinking its 'renewable',
- The greenest tariffs are the ones that increase the volume of renewables by directly financing new projects (According to Ofgem and research by Which?)
 - Good energy
 - Green Energy UK
 - Ecotricity
- Other suppliers are buying and selling renewable energy certificates
- Ideal scenario is to own your own renewables





What to include in your action plan?

CARBON

- Identify your biggest carbon impacts
- Put in place a monitor and measuring process
- Set targets for reduction

ENERGY

- Gathering baseline data to set targets for future events
- Turning off policy
- Request energy efficient kit
- **■** Mains electricity supply where possible
- Battery or hybrid generators with monitoring equipment
- Generators specified to run at 60-80% capacity

USE CHECKLIST FOR INSPIRATION

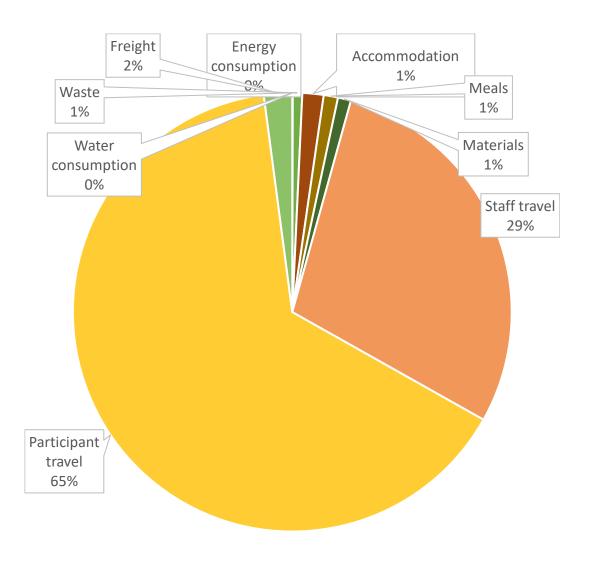
5 mins





Travel footprints for events

- Event with international travel
- Clean CO2 analysis and bespoke travel footprint

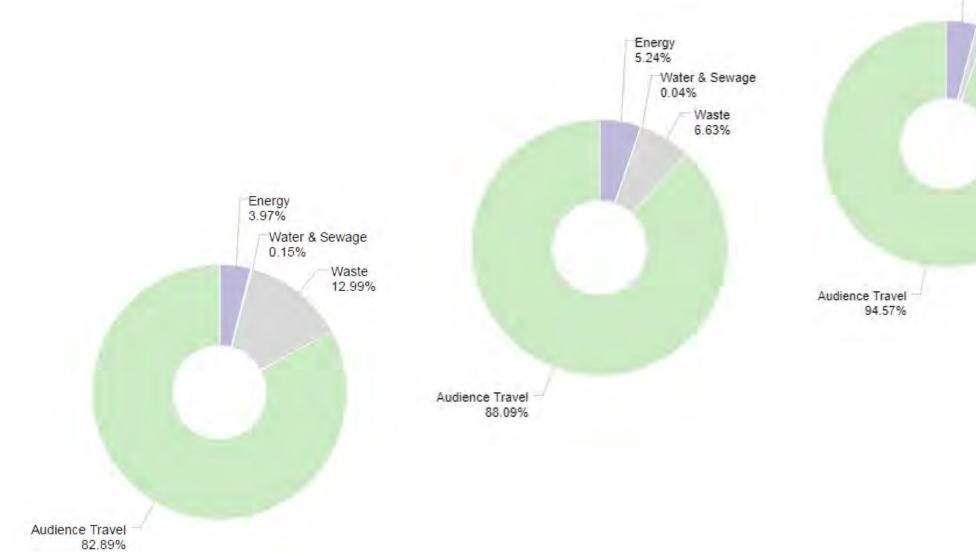


Water & Sewage

0.04% Waste 1.31%

Energy 4.08%

Carbon footprints for greenfield events



Audience travel

- Focus on car sharing instead of public transport
- YOU can steer their behaviour with your choice architecture
 - Location of your event
 - Buses with discounted tickets or pre-sale
 - High car parking charges
 - Bike racks
 - Rewards for cyclists
 - Liftsharing scheme e.g. <u>GoCarShare</u>
- Set up a carbon calculator (<u>Ecolibrium</u>) so they can balance their travel and accommodation at the point of purchase
- Ask questions in your post-event survey
- Get travel data to understand audience locations
 - Take your event to them



Staff & contractor travel

Have a travel policy for staff, artists and international travel:

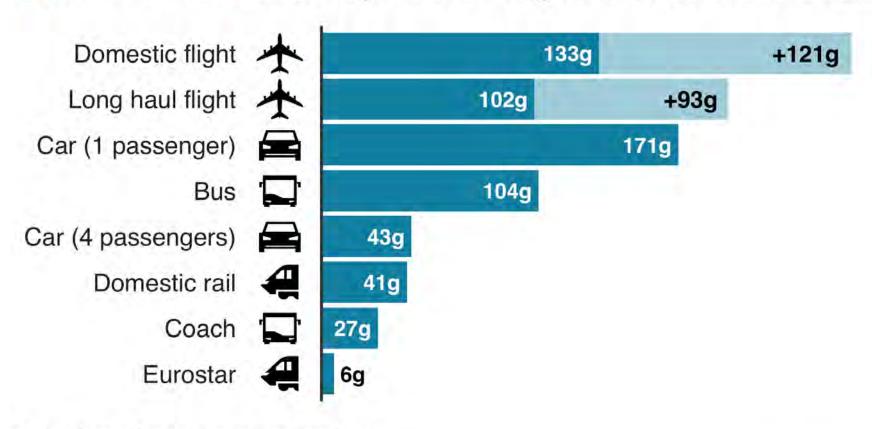
- Book local contractors
- Consider an overland policy for European artists
- Provide bikes and electric vehicles for site vehicles
- Require contractors, staff and artists to provide their travel data
- Look at ways to coordinate deliveries from different suppliers and contractors to avoid half-empty vans being sent



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



What to include in your action plan?

TRAVEL & TRANSPORT

- Gathering baseline data to set targets for future events
- Consider location
- Have a public transport and overland policy for artists and staff
- Encourage lift sharing

Use checklist for ideas

3 mins





Resources

- Show Must Go On report
- Measuring generator load resource pack
- Powerful Thinking fact sheets
- Julie's Bicycle CG Tools
- Ecolibrium travel calculator
- Refill scheme
- Gocarshare
- Reusable cup guide
- Chefs Eye Tech