THE THEATRE GREEN BOOK

3 : Sustainable Operations

(version beta.1 for trialling)

The Theatre Green Book is a free resource for everyone in the UK theatre sector. It has been developed in partnership by the organisations whose logos are on this page.

The Theatre Green Book is built on years of thinking, research and advocacy by pioneering organisations, theatres, theatre companies and individuals. You'll find their names in the acknowledgements, and their ideas throughout.

We would like to thank everyone who has supported the Green Book with their time, their commitment and ideas. Their names are in the acknowledgements. And special thanks to the funders of the Green Book, whose names you'll find in the inside back cover.

Foreword

The first two volumes of the Theatre Green Book give theatre-makers and companies common standards for the sector's journey to sustainable practice. Sustainable Productions sets common standards for producing shows sustainably. Sustainable Buildings provides guidance to make theatres fit for purpose in the context of the climate emergency.

This third and last volume, Sustainable Operations, covers everything else theatres do, from catering to rehearsals, offices to travel.

Theatre's impact on the planet is broad. Public buildings use energy. Audiences, staff and performers have to travel. The numerous operations that theatre needs, from rehearsals through to marketing, selling tickets, collecting waste, running dressing rooms and making coffee, all add to theatre's footprint.

It isn't a matter of deciding which is the worst offender and forgetting about the rest. If theatre is to become sustainable, and be seen by the public as sustainable, then it has to review every aspect of what theatre-making means, and rethink every way in which it currently harms the planet.

Building on theatre operators' own expertise, and the knowledge of theatres who have already begun this journey, Sustainable Operations provides solutions to those challenges, and offers a step-by-step approach to addressing them.

Paddy Dillon, Green Book Co-ordinator

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The Theatre Green Book has brought together theatre-makers and sustainability experts to create a common standard for making theatre sustainably.

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TOOLKIT

A toolkit of resources for sustainable theatre buildings can be found online at

https://theatregreenbook.com/sustainableoperations-toolkit/

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sustainable operations
AT A GLANCE

"We have a once-in-a-generation opportunity to build a resilient recovery plan that is fair and tackles the climate and ecological crisis with urgency. We cannot let this opportunity pass us by." Julie's Bicycle, 2020

Build a Green Team

Someone to lead on:

- Front of House
- Back of House
- Managing the building
- Waste
- Travel and Transportation
- Contracts and procurement

If it's a small organisation, one person might cover several areas.

Next, you'll need:

- Senior management and Board sponsors
- Staff networks to share ideas
- A plan to communicate progress

Choose a target

There are 3 standards:

- Baseline
- Intermediate
- Advanced

1) Judge where you are, and choose which to aim for

2) Make sure everyone knows

Prioritise

1) Focus on what you control

'Scope 1 Emissions' are caused by fossil fuels you burn yourselves. *You'll find help in Green Book volume 2 : Sustainable Buildings.*

'Scope 2 Emissions' come from the electricity you buy from fossil fuel sources. *Managing the building will bring them down.*

'Scope 3 Emissions' cover everything else, from audience travel to cleaning and bars. *Some you can control and some you can't...*

- **Focus on what you <u>can</u> control**
- **Don't worry about things you <u>can't</u>**

2) Identify what has most impact

3) Make an action plan that balances high impact with what's easiest to achieve

Front of House

Catering and Bars

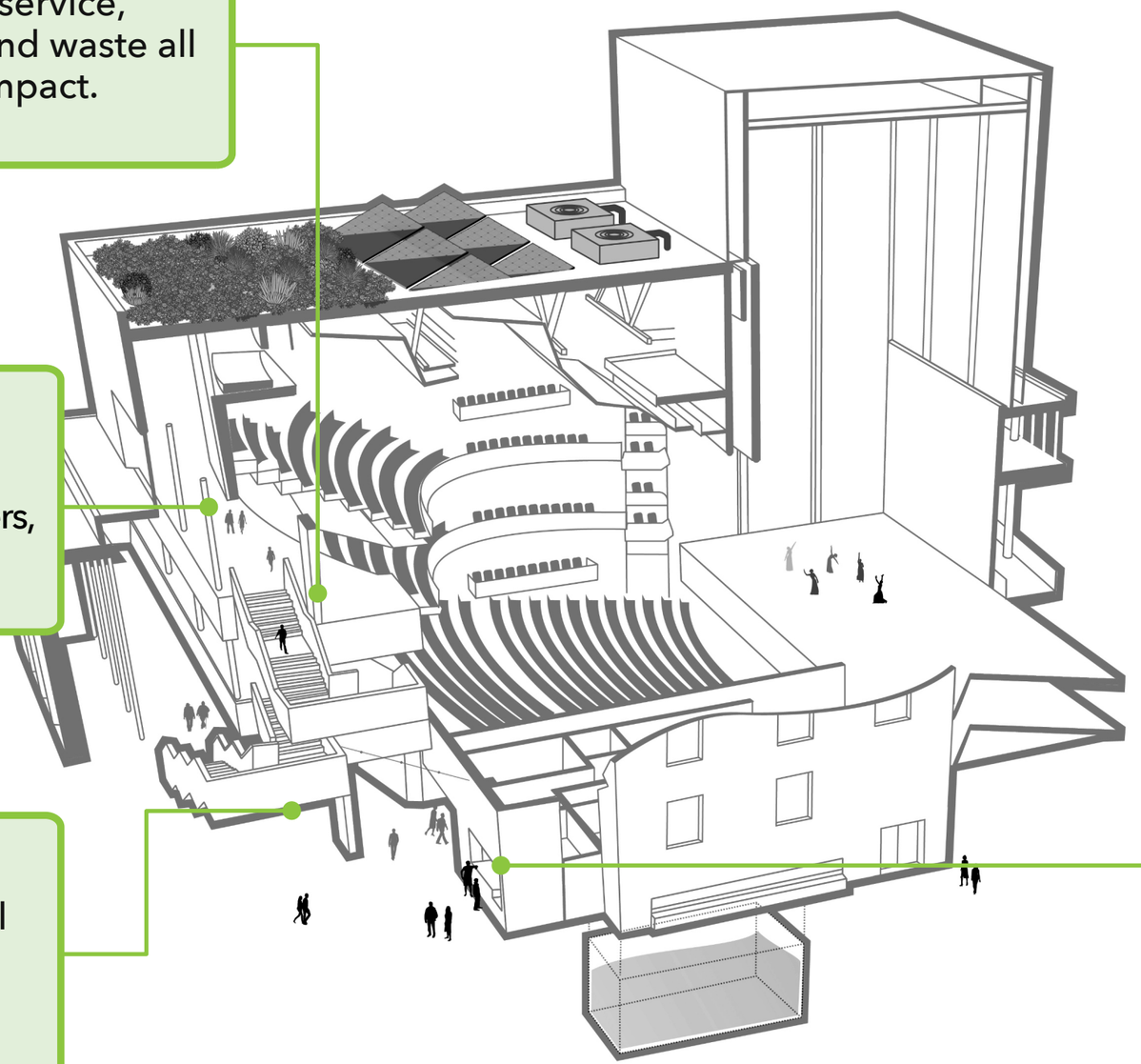
1 Food, drink, service, packaging and waste all have a big impact.

Marketing

2 Bring your audience with you – along with supporters, partners and visitors.

Digital

3 Websites, etickets etc all emit carbon – but you can minimise impact.



Retail

4 Procure responsibly. Partner sustainable brands. Reduce packaging and deliveries.

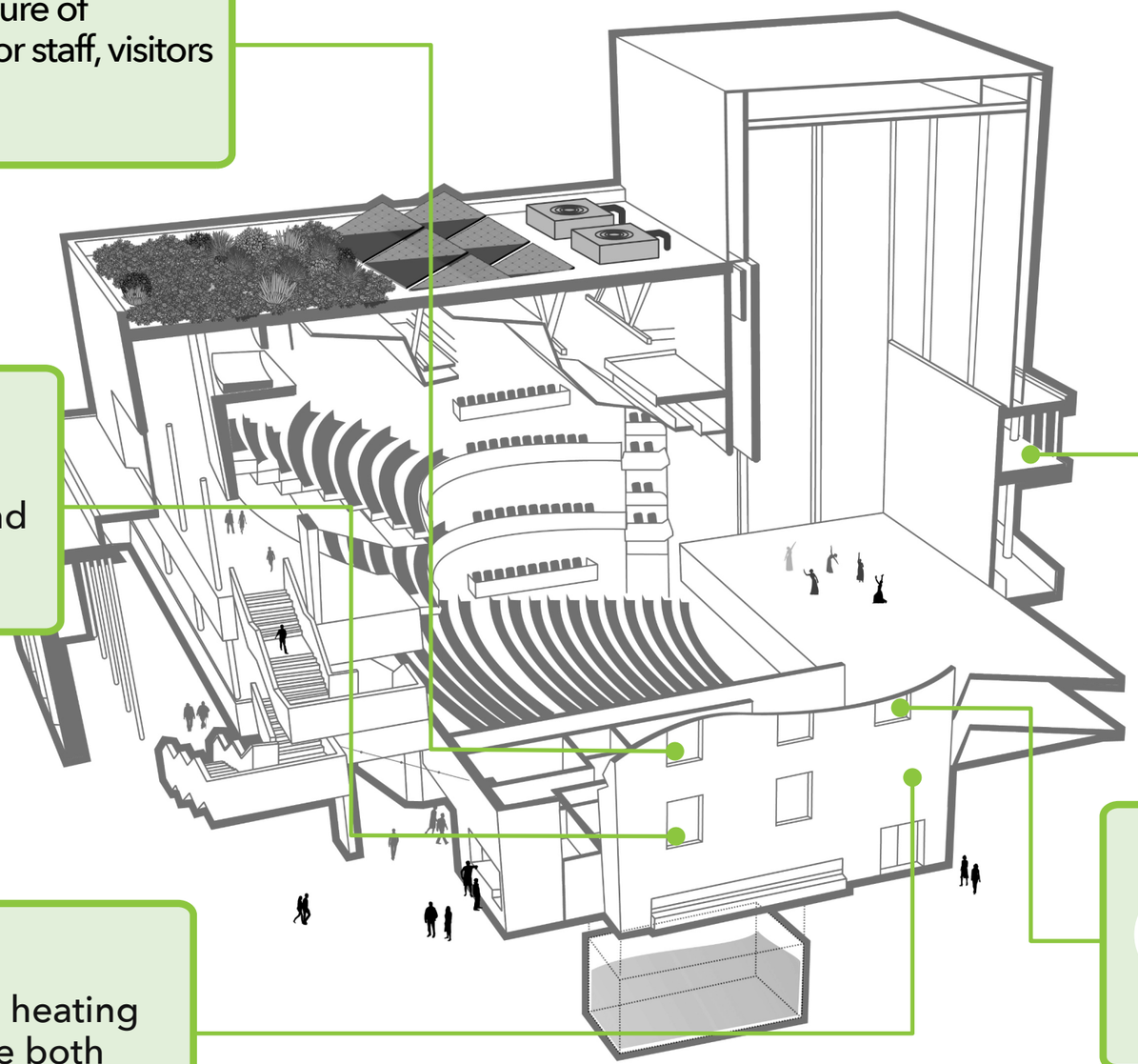
Back of House

Staff

1 Develop a culture of sustainability for staff, visitors and artists.

Offices

2 Target printing, waste, coffee points, digital and internet use.



Rehearsals

3 Cast travel, and heating large spaces are both sustainability issues.

Workshops

4 Minimise energy, avoid harmful chemicals and reduce waste.

Dressing rooms

5 Irregular occupancy can waste energy, and needs careful control.

Managing the Building

Building Services

1 Manage systems to minimise energy use.

Biodiversity

2 We're in a climate *and* biodiversity emergency. Support local ecology.

Housekeeping

3 Cleaning products and procedures can be environmentally harmful.

Maintenance

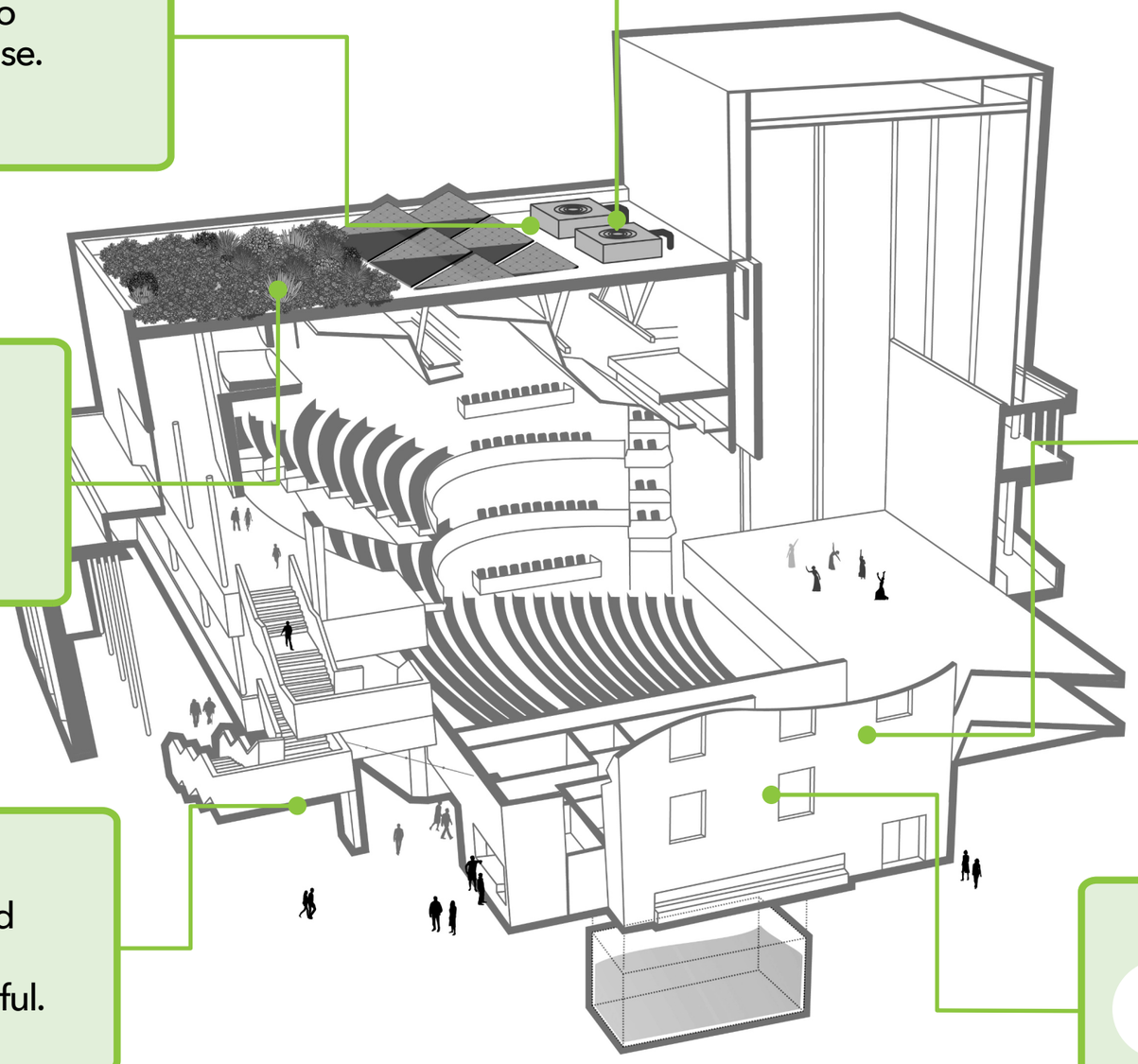
4 Managing plant carefully improves sustainability, performance and cost.

Water

5 Minimise water use. Pumping and treatment also consume energy.

BMS

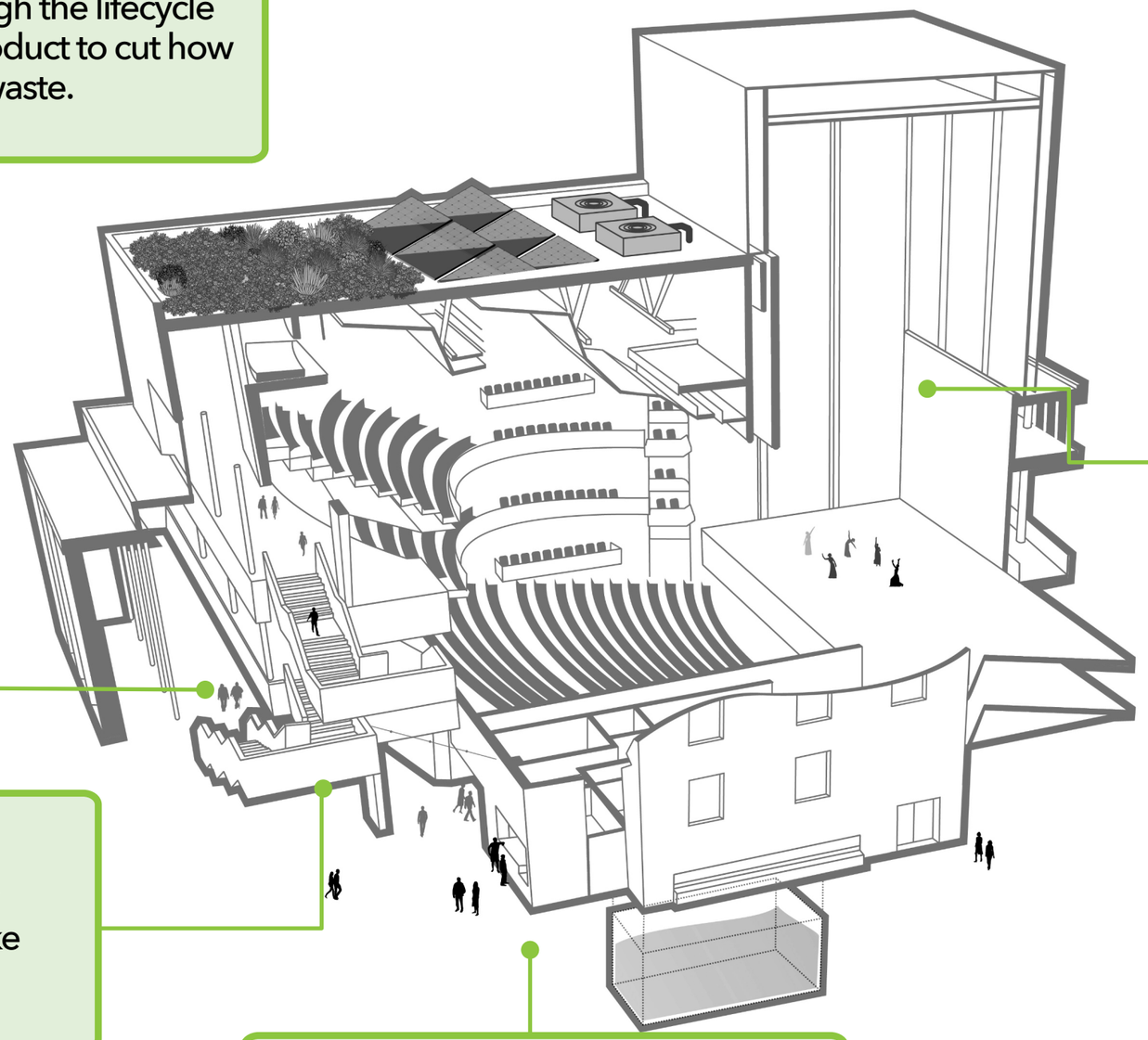
6 A Building Management System helps run systems sustainably.



Waste

Reduce

1 Think through the lifecycle of every product to cut how much you waste.



Data is Key

4 Monitor waste generation and recycling. Use data to set targets.

Reuse

2 Choose reusables over disposables. Try to make everything last.

Recycle

3 Make it as easy as possible for visitors to recycle. Try to reduce contamination.

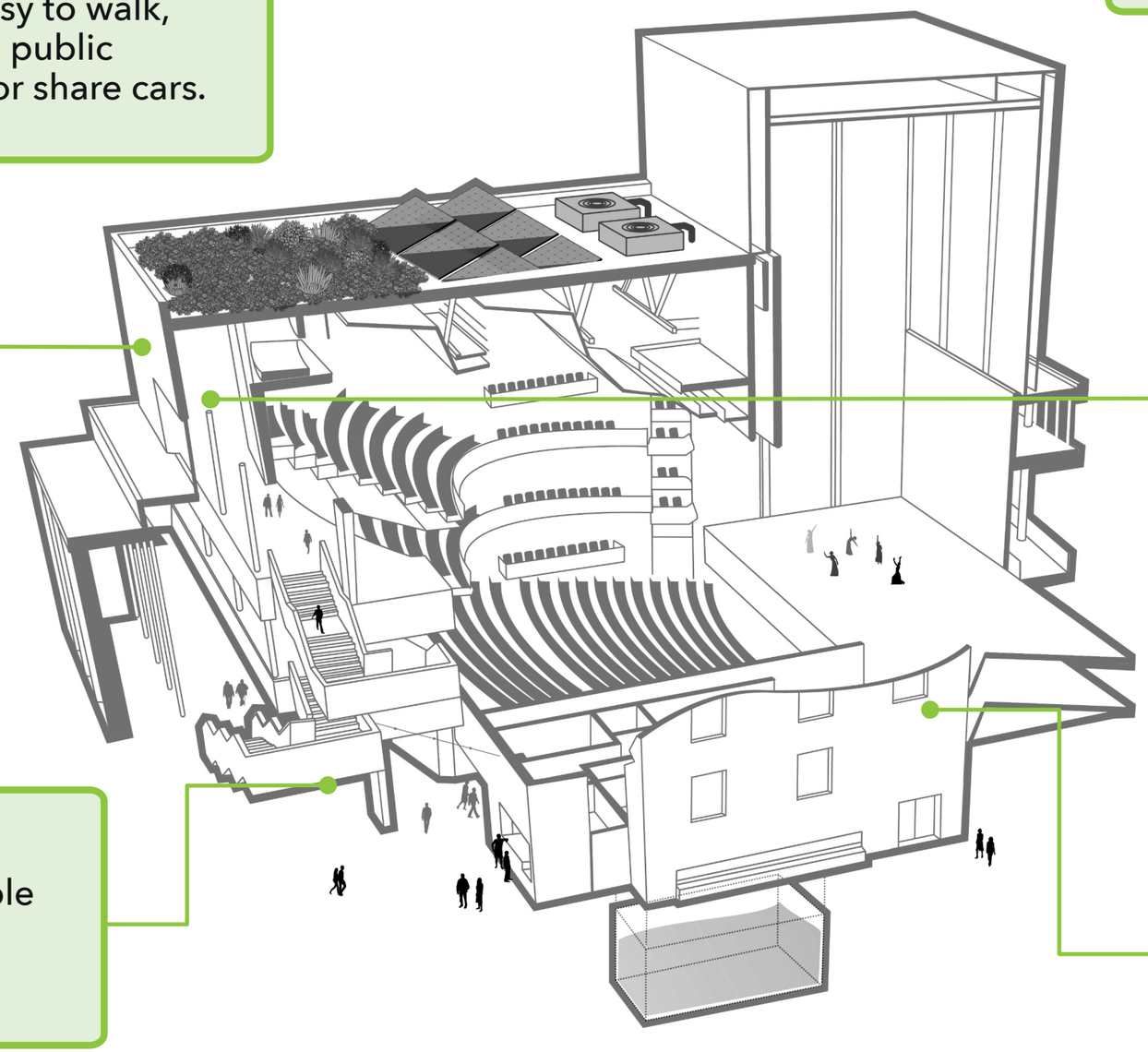
Travel and Transportation

1 Sustainable Options

Make it easy to walk, cycle, take public transport or share cars.

3 Information

Use sales, website and inductions to make sure everyone knows the sustainable options.



2 Audiences

Incentivise sustainable travel. Help with timetables and car sharing.

4 Staff and Visitors

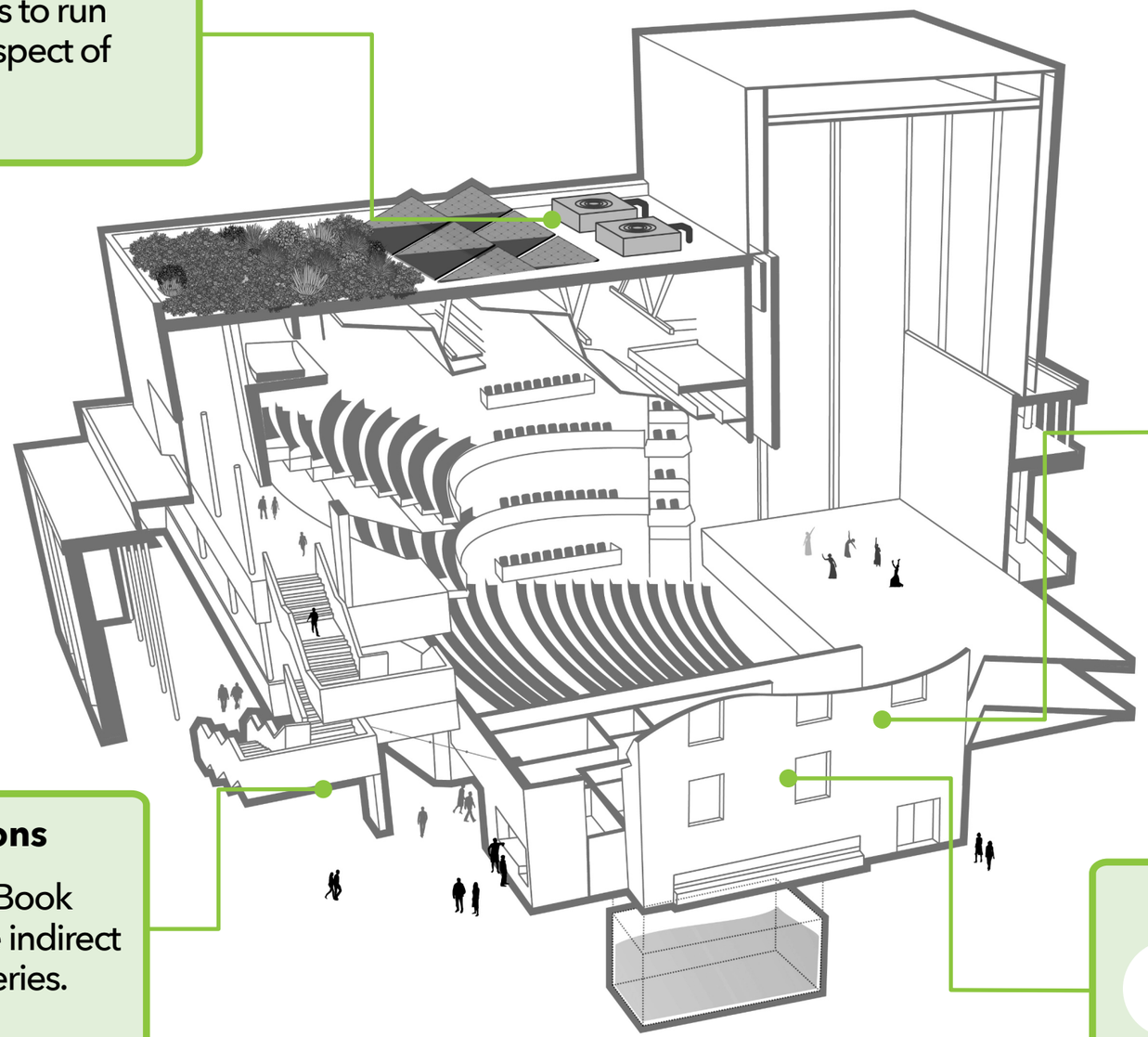
Reduce travel through flexible working, and incentivise sustainable options.

Contracts and Procurement

1

Managing Performance

Sustainability has to run through every aspect of what you do.



2

‘Scope 3’ Emissions

This Theatre Green Book volume helps tackle indirect emissions like deliveries.

3

Procurement

Set sustainability standards for the third party goods and services you buy.

4

Contracts

All your contracts can contain sustainability clauses.

sustainable operations

THE PRINCIPLES

"Without the cultural sector playing its part in helping current and future society to move towards a more sustainable way of life, this essential shift will not happen." Creative Carbon Scotland, 2020

1 Introduction

1 Why the Green Book?

The climate crisis is an immediate threat to our safety, equity and prosperity. We urgently need to limit carbon emissions, reduce biodiversity damage, and, in doing so, achieve a just transition where people, places and communities are supported and vulnerable groups protected.

Theatre cannot solve the climate crisis alone, but it can play an urgent role in addressing it. Theatre can question and challenge, provoke, entertain and surprise. It can reflect the preoccupations of generations facing a time of dizzying, frightening change.

But to do that, theatre itself needs to work sustainably.

2 A Clear Path to Sustainability

The Theatre Green Book gives theatre a path towards sustainability. It builds on years of work by theatre-makers and sustainability pioneers like Julie's Bicycle, Creative Carbon Scotland, SiPA, and others. It maps the journey towards an industry that is low carbon and low waste, values people, and contributes to a more sustainable society.

3 Scope of the Green Book

The Green Book has three parts. Together, they will give theatre clear, practical and detailed guidance towards sustainability:

1 Sustainable Productions

2 Sustainable Buildings

3 Sustainable Operations (this volume)

4 Sustainable Operations

This guide was created with the input of theatre practitioners of all sorts: heads of catering and front of house, workshop managers, directors of box office, marketing and communications, sustainability leads and facilities managers.

Those have been followed up with industry partners and specialist groups from related sectors. Sustainable Operations is based not only on the sector's knowledge of theatre operations, but on the expertise in working sustainably already developed by numerous theatre practitioners.

While this volume focuses on sustainable theatre operations, there are some overlaps with Sustainable Buildings (volume 2) and Sustainable Productions (volume 1). Whatever your role, it's worth looking at all three volumes.

5 Scale

Inevitably, some of the advice in this volume applies to larger venues, who have dedicated facilities management teams, front of house specialists, and the resource to manage procurement centrally.

However, theatre operators of all scales have been involved in creating the Theatre Green Book, and the principles behind sustainability apply at all scales. You may not have a specialist marketing team (Section 4), but the principle of getting your sustainability message across to audiences still applies. You may not have a 'Building Management System' (Section 6), but the principle of minimising energy use is the same (see 'Controls'). If your time and resource are limited, turn to the guidance and focus on those areas where you can see how to make the best headway.

Networks of smaller companies can help share worries, and expertise. They can pool resources. They may even be able to procure collectively to reduce costs, for example by purchasing green energy through an 'Energy Basket'.

6 The Standards

To work sustainably, theatres and theatre companies need to examine the whole range of their operations. That covers everything from marketing to travel, from running offices sustainably, to looking at waste management and heating controls. There's no point running a sustainable catering operation if your waste still goes to landfill and your radiators are heating empty rooms.

So the guidance in Sustainable Operations covers everything. To achieve 'Baseline', the lowest of three standards, you'll need to make progress with every aspect of your operation. Climbing to 'Intermediate' and 'Advanced' will require progress across the board.

The vital thing is to begin the journey now.

Cost

Sustainability doesn't have to cost more. On the contrary – reducing the amount of energy you use can be a massive cost saving for the organisation. That's worth remembering when some contracts – for 'green' materials or cleaning products – come back more expensive.

The main thing is to establish sustainability alongside cost as a key driver for the decisions you make. We will never work sustainably if sustainability is always sacrificed to price.

Quite apart from the health of the planet, there are major commercial benefits in the resilience, people-focus, and longer-term thinking that come with sustainability.

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2 Setting the Context

1 Building a Green Team

You'll only achieve change if you create the right conditions for a shift to sustainability.

First, establish a Green Team to drive the process. You need someone to lead on:

- Front of House
- Back of House
- Managing the building
- Waste
- Travel
- Contracts and Procurement

The Theatre Green Book sets standards for each of these areas. If you're a smaller organisation, these categories will probably overlap.

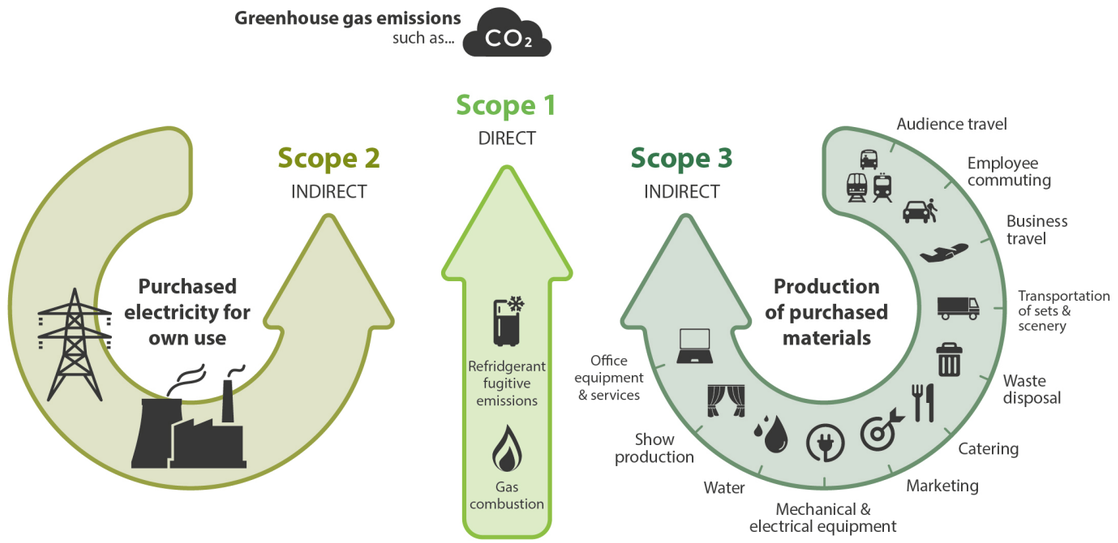
2 Creating a Sustainability Culture

First, make sure you have buy in at the top. Board and senior management need to support the drive to sustainability, and can appoint sponsors to ensure the message is consistent.

Involve staff. Members of staff will be delivering change on the ground, and you need their expertise. Establish a green staff network to educate, understand challenges and listen to ideas. Plan for climate literacy training across the organisation. Clearly communicate targets, milestones and achievements.

Don't forget external stakeholders. Freelancers, performers and artists, funders, supporters and audiences all need to understand your sustainability aspirations and share in your achievements.

You'll need a communications plan to manage how you share the message about sustainability, celebrate successes, and make sure everyone feels empowered and involved.



3 Choosing a Target

The Theatre Green Book: Sustainable Operations sets three levels:

- Baseline
- Intermediate
- Advanced

A Baseline operation means you've achieved meaningful change, and you're on a path to zero carbon. An Advanced organisation is effectively zero carbon.

Each level covers the same range of operational activities: Front of House, Back of House, Managing the Building, Waste, Travel and Contracts / Procurement. Sustainable operation requires progress across the board. There's no point running a 'green' back of house if you're wasting energy in the foyers.

To begin, get your Green Team together to agree where you currently stand against each standard. Decide which level to target and set yourself a timeline to achieve it. Focus on areas lagging behind.

With energy and good organisation, anyone should be able to achieve Baseline within a few months.

4 Priorities

It's easy to get bogged down in the many conflicting challenges around sustainability.

Sustainability specialists divide carbon emissions into three types:

Scope 1 emissions (from burning fossil fuels, e.g. in gas boilers) are tackled in Theatre Green Book volume 2 : Sustainable Buildings. Scope 2 emissions come from electricity generated in fossil fuel power stations. You address them by reducing energy use and switching to green suppliers. *See Toolkit.*

Scope 3 emissions cover everything else: buying new equipment, marketing shows, audience travel, printing and publishing, communication and marketing, legal and business services, computer services, and catering.

The Theatre Green Book provides a framework for action that targets the most important challenges. To help decide where to concentrate, a Scope 3 emissions audit *(see the Toolkit)* can home in on the activities which have most impact. The audit will also highlight which emissions you're responsible for, and which are outside your control.

1 Focus on what you can control and don't worry about what you can't.

For example, audience travel is likely to be a major part of a theatre's impact. You **can** inform audiences about green travel options and incentivise them *(see Section 8)*. You **can't** force people to travel differently. So do what you can, then move on to the next task.

2 Identify what has most impact.

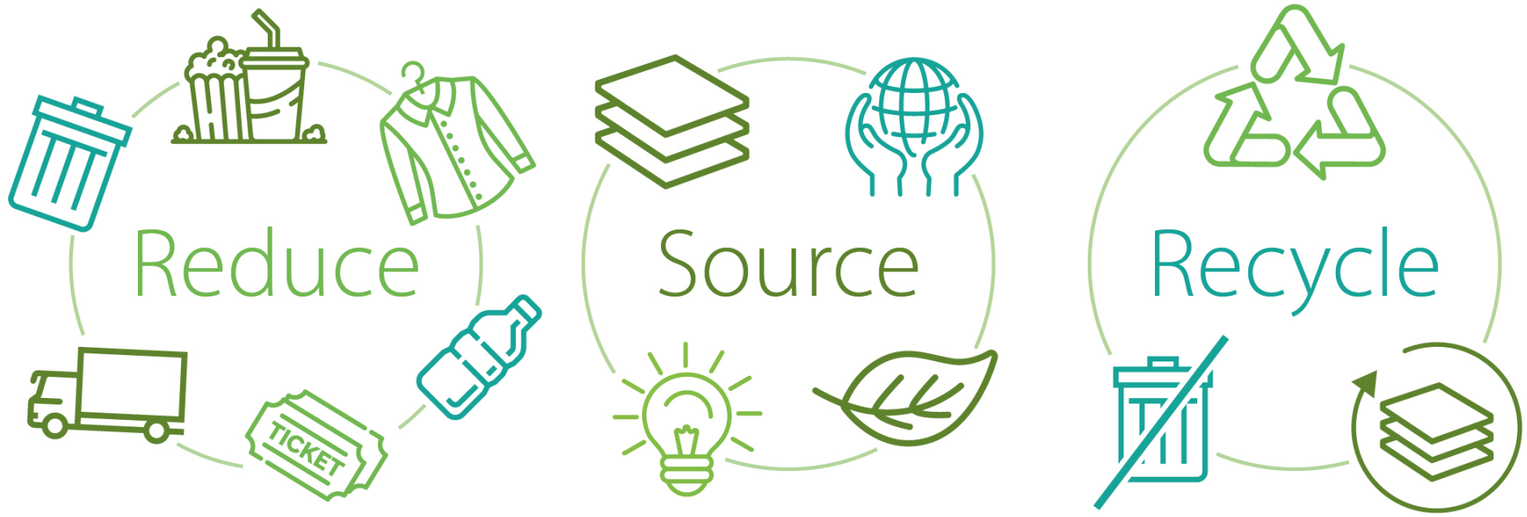
Banning plastic straws is easy (and worthwhile) – but doesn't shift you far on the journey to sustainability.

3 Plan your actions by balancing high impact with what's easiest to achieve.

4 Set a timetable for each action.

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3 Key Principles



Introduction

Sustainable Operations covers a wide range of different activities. But the underlying principles are very simple:

REDUCE how much you use.

SOURCE what you use as sustainably as possible.

Reuse or RECYCLE everything you can.

Whatever you do, it will be much easier if you collaborate, network and share.

1 Reduce

The first task is always to reduce how much energy or resource you use. Whether it's the amount of electricity you draw, the quantity of waste you generate, the weight of paper you buy, or the size of your data-hungry website, powering and sourcing things sustainably becomes far easier if you minimise your footprint in the first place.

2 Source

Once you've cut down how much of everything you need, you can set about sourcing it as sustainably as possible. That might mean buying your electricity from renewable sources, finding the most sustainable type of recyclable coffee cup for your cafe, or buying locally so as to reduce travel.

Specifying sustainable materials; shortening supply chains by purchasing direct; or questioning suppliers about the transport they use – they're all examples of getting the goods and services you need from the most sustainable source you can find.

3 Reuse or recycle

Finally, there's the challenge of disposing of your waste as sustainably as possible. There's guidance in section 6, but the principle is to reuse or recycle everything you can, whether it's sending spent cooking fat for biofuel, giving workshop offcuts to local schools, or selling unwanted furniture on eBay.

Sharing

Use your networks to spread expertise and share solutions. Involve partners, suppliers, freelancers and supporters in your sustainability journey. Make sure you get your sustainability message across to everyone you work with – including audiences.

Stretching Resource

Most theatre organisations are already stressed. Sustainability can feel like another burden.

First, make sure the whole organisation is involved (see Section 2). A clear strategy from senior management, endorsed by the Board, sets measurable outputs. Staff, freelancers and volunteers bring expertise and detailed knowledge.

Sustainability is everyone's responsibility – and can be written into everyone's job description. Climate literacy training *(see Toolkit)* helps everyone see the wider background.

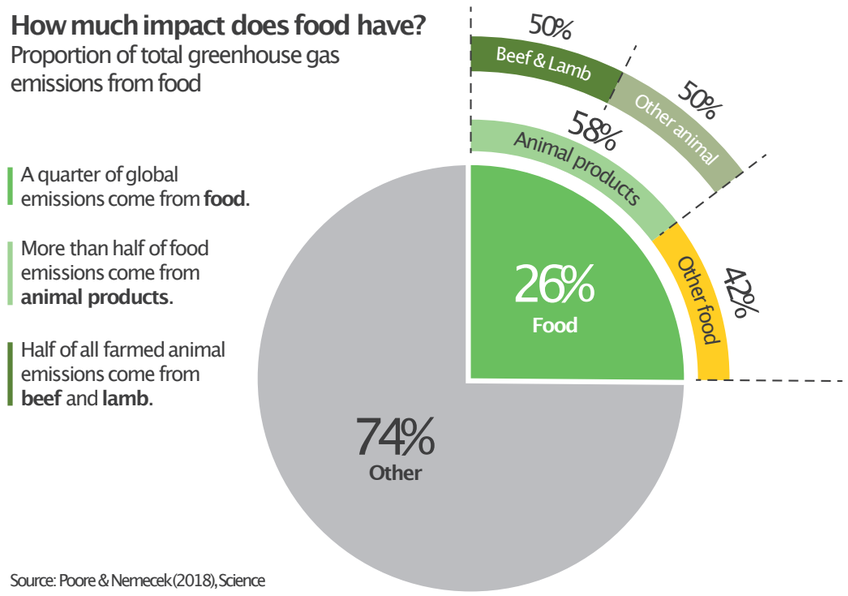
The Green Team must turn enthusiasm into systematic, focused actions.

Prioritise where you focus your energy (see Section 2). If resources are limited, identify the highest-impact actions which you can achieve in defined time-frames, and concentrate on them first.

Meanwhile, measure data, set benchmarks and establish realistic targets for everyone, year-on-year. Calculators such as Julie's Bicycle's *(see Toolkit)* can help you track your progress.

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4 Front of House



1 Introduction

The main areas of focus for a sustainable front of house are:

- Marketing and box office
- Catering
- Retail

Waste and travel – two major areas for sustainability – are covered separately in Sections 7 and 8.

Marketing and Front of House have a vital role to play in sharing your sustainability message (see below). To underpin that message, Front of House departments must themselves operate sustainably.

2 Marketing and Box Office

Cutting Down on Paper

Traditionally, marketing and box office produced quantities of posters, flyers, mailshots, cast lists, programmes and tickets. The switch to digital tickets and resources has cut paper use a lot. Review your remaining paper requirements to make sure:

- There are no viable paperless alternatives.
- You're printing only necessary quantities.
- You're choosing a local printer who uses recycled papers and sustainable printing methods.

Digital

Unfortunately, digital is not a zero-carbon alternative. The internet, email and cloud-based services cause substantial carbon emissions in manufacturing, powering and cooling computers and data centres.

Active digital management is needed to minimise your digital footprint:

- Choose an internet provider who offers sustainable operation.
- Minimise internet page numbers and data size.

See the Digital Toolkit for more guidance.

3 Catering

Around a quarter of global greenhouse gas emissions come from food, and more than half of this comes from animal products. Addressing your catering offer is one of the single biggest impacts you can have on your theatre's overall carbon footprint.

A more sustainable catering approach means:

- Sourcing food and drink locally and sustainably; and reducing or eliminating food products with a high carbon impact.
- Reducing food waste.
- Choosing and managing kitchen and bar equipment sustainably.
- Sustainable catering service and packaging (e.g. avoiding disposables).

Sourcing ingredients

The ingredients you serve and suppliers you work with are the cornerstone of sustainable catering. Make your menu seasonal, and champion local producers. Ingredients sourced from further afield should be sourced directly from producers or through certified sourcing programmes to ensure transparency.

Prioritise plant-based ingredients by offering a good range of plant-based starters, mains and desserts. You can shift gradually away from meat and fish through plant-only starters and by highlighting plant-based 'house' dishes. For meat or fish, use only high-welfare meat and dairy, and responsibly sourced fish.

Bar snacks also need rethinking. Offer plant-based options, seek out dairy that's high welfare, and favour British-sourced products to reduce food miles.

Reducing food waste

Waste from Front of House and catering departments can be hard to organise. Audit waste to identify where food is being wasted and implement a reduction strategy (for example by reducing some portion sizes).

Ensure any unavoidable food waste is sent for Anaerobic Digestion or Composting. Bins need clear labelling. Use pedal bins with visual signs on the lids, and instructions in languages that suit your staff and audiences.

There's more on this is in Section 7, Waste.

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IN THE TOOLKIT

Digital Management
Paper and Printing
Marketing and Ticketing
Food and Beverage Action Plan

Kitchen and bar equipment

The energy and water used in kitchen and bar equipment can have a significant impact. Some beer delivery systems use significantly less power, and less water for cleaning. Consult suppliers for advice on low energy options, and include sustainability as a criterion when selecting kit.

Good maintenance ensures efficient operation of equipment, while training helps staff get the best out of it. Review all equipment and operations to identify sustainability wins. For example, you may be able to reduce water waste by limiters on taps. Cooking fat might be recycled for biofuel.

Catering service and packaging

Switch to and promote recycling wherever possible.

Avoid single-use cups and glasses. Glass in auditoriums needs risk assessment, and may require a Licence variation. If you don't allow glassware, source reusable cups and glasses made from aluminium or recycled plastic. Communicate clearly how they should be returned, and train your FOH team to help. Be ready to serve coffee and water in customers' own reusable cups. *See the Toolkit for more on options for recyclable cups.*

Source bar snacks in compostable packaging (if your waste contractor can support this). Ice creams can be scooped in cones, or served in reusable cups with edible spoons. Buy savoury snacks from large catering packs, store them in glass vessels and serve into reusable containers or paper bags.

If your staff wear uniforms such as T-shirts, make sure they're locally sourced from natural fibres, and laundered sustainably with low-impact products.

See the "Food and Beverage Ideas Action Plan" in the toolkit for more guidance on sustainable catering operations.

4 Retail

Retail may vary from large shops to temporary merchandise stalls. Here are some general principles:

- Sell non-perishable products that are designed to last.
- Work with your suppliers to avoid single use plastics and excessive non-recyclable packaging.
- Minimise deliveries.
- Don't go cashless. *See the Toolkit for more on this.*
- Avoid plastic carrier bags. Use recycled, reusable and biodegradable packaging.
- Promote and partner with sustainable products and brands.
- Encourage suppliers to share their sustainable policy.
- Sell re-usable coffee cups and water bottles.

5 Getting the Sustainability Message Across

Audiences play a key role in theatre's journey to sustainability. Front of house is your best chance to take them with you. So it's vital to share with them what you've achieved, what you're doing – and why. Getting your sustainability message across spreads the word, enhances your brand, and involves your audience in a shared initiative. Here's what to focus on:

- Create clear, consistent communications for customers and staff.
- Share your green charter or sustainability plan with your audiences. If you're targeting Theatre Green Book standards for productions, publicise it on ticketing and marketing material. If you have a Theatre Green Book Sustainability Plan for your building, advertising it might help fund-raising. Tell audiences about your Sustainable Operations standard, and explain how catering or marketing operations help achieve it.
- Good news stories work. Share goals, data, and accomplishments. Make a regular sustainability slot in your newsletters or social media, and include suppliers and partners in the narrative. Involve your audience directly by inviting audience representatives to environmental visioning days. Without overdoing messaging, look for the right opportunities to get stories across, for example on menus or programmes.
- Theatres have great outreach opportunities, and the power to communicate sustainability. You may want to align education work with school curriculums and sustainability awareness dates here: https://www.eauc.org.uk/environmental_dates_calendar.
- Involve audiences, for example by helping them with sustainable travel options (see Section 8).
- Involve all your stakeholders: board members, funders, suppliers, contractors, and – most important of all – your staff. Everyone has a role to play in making theatre sustainable.
- Social media, websites, programmes, tickets, newsletters and emails all offer opportunities to share your sustainability message.

Digital

According to the International Energy Agency, data centres consume nearly 1% of global electricity demand. Greening the internet is a new shared responsibility:

- Investigate your website emissions with carbon calculators like this one: https://www.websitecarbon.com/. An average web page produces 1.76 grams CO2 per page view. For a website with 10,000 monthly page views, that's 211 kg CO2 per year (the equivalent to the CO2 absorbed by about 10 trees each year).
- Fewer webpages have a smaller impact. Minimise data size (in MB), particularly through video and image content.

See the Marketing Toolkit for more on reducing digital impact.

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5 Back of House

1 Introduction

For sustainable back of house operations:

• Office areas, workshops, dressing rooms and backstage need to be converted to run sustainably (for example with better insulation, and sustainable services systems and controls). There's guidance on this in volume two of the Theatre Green Book, Sustainable Buildings, and in the next section of this volume, Managing the Building.

• Systems, policies, procedures, contracts and equipment need to be set up for sustainable operation (for example, policies on printing, contracts for supply of materials, low-carbon options for digital communication, and recycling procedures in workshops).

Make sure one person has responsibility for co-ordinating sustainability action Back of House. Agree leaders within each department, and create a structure for sharing and communication.

Staff must be part of the process. The people engaged in day-to-day challenges are often best placed to identify opportunities and share challenges. They must thoroughly understand and implement any new systems. They play a vital role in feeding back and making improvements.

See the Toolkit for more on developing a sustainability culture.

2 Offices

Sustainable printing policies cut down on paper use, by double-sided printing, and only printing the copies needed. Makes sure printing and paper supplies are sustainably sourced. *See the Marketing and Ticketing Ideas Toolkit for general advice on printing sustainably.*

Digital communication and storage carries its own carbon footprint (for example, through cooling of massive server arrays). Establish policies for how staff use the internet, communicate digitally and store data. *See the Digital Toolkit for more guidance.*

Kitchens and tea points need careful thought. Waste management is covered in the Waste section. Any food or drink should be sourced sustainably, as for the front of house catering (see Front of House).

If fridges and microwaves are nearing the end of their lives, replace them with low energy appliances (see https://energylabel.org.uk/ for the energy use scale).

4 Workshops

See Sustainable Productions, the first volume of the Theatre Green Book, for guidance on sustainably making sets and scenery, costumes, props etc, and for sustainable practice in technical theatre.

See t*he Toolkit for more on Sustainable Workshops.*

Working Sustainably

Make sure your staff and systems are all set up to work sustainably:

• Sourcing materials sustainably can't be done show-by-show. Research local suppliers, and set up supply contracts for sustainable materials. Contracts might include taking back waste or unused materials.

• Establish clear rules on deliveries, to avoid multiple or last-minute deliveries where possible. Explore options for low-carbon delivery. For example, favour suppliers who can offer delivery by electric van (although rare at present, these will become more common if customers request them). If you have your own delivery van, look at replacement with an electric alternative.

• Reusing and recycling materials requires systems for assessing, reclaiming and storing as much as possible when productions finish. Finding time and space is a challenge. Try to allow (and budget for) time in reclaiming materials, and establish protocols for assessing sets. Review storage priorities. Develop pricing systems to make sure you get the economic benefit of reuse and recycling.

• Increased reuse and recycling means more sharing between theatres (and with related sectors like TV and film). Review asset management systems for your own stored assets so as to make them available to others. Make sure you're connected to local sources of stored items you can use in your own shows. *See the Toolkit for more on asset management and storage.*

• Designing and building sets for easy disassembly helps salvage materials for reuse (see Sustainable Productions). Staff need training in relevant techniques, and drama education has an important role to play in teaching new techniques. Modular construction and scaffold-type framing for sets are important ways to make set-building more sustainable. They require staff training, clear information on modular systems, and access to supply contracts for scaffold-type framing systems.

Cast, Freelancers, Visitors, Contractors

Communicate with visiting cast, creative and freelance teams. Induct them on environmental policies when they arrive, making sure they understand your sustainability values and targets.

Make sure you provide guidance on:

• Travel.

• The use of heating, ventilation and other systems, including how to switch them off if they're last to leave.

• Your policies around catering, bottled water etc.

Most of all, make sure you listen to their needs and help find sustainable responses to them. Different casts and creative teams may have very different requirements.

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• Familiarise all staff with Theatre Green Book standards for productions, and with the Materials Inventories and (for advanced shows) carbon calculators used to measure impact.

Workshop Buildings and Machinery

Workshop machinery needs managing for sustainability:

• When buying new machinery give due attention to guarantees and warrantees to ensure you're buying kit that will last and is maintainable. Ask about power consumption (f only to signal to the supplier that you care about this).

• Good maintenance is essential to make equipment last as long as possible.

• At the end of machinery life, replace with energy efficient alternatives to reduce operational carbon.

• Install LED lighting in workshops to reduce electrical demand.

• Tackle air pollutants which affect the health and wellbeing of users. Consider "Ecodesign" welding. Make sure extract equipment is adequate and well-maintained, and replace filters regularly.

5 Rehearsals

Rehearsal Rooms

Heating and cooling for rehearsal space accounts for 28% of the London theatre industry's direct carbon footprint. That's a real opportunity for improvement. Volume two of the Theatre Green Book, Sustainable Buildings, provides guidance on how to upgrade your rehearsal rooms with:

• Better insulation, double glazing, draught lobbies and well-sealed doors.

• More efficient services systems, and the controls to make sure they're running only when needed.

The next section of this volume, Managing the Building, gives advice on how to run your building as efficiently as possible. The key for rehearsal rooms is to heat or cool them only when they're occupied, by matching heating / cooling times to occupancy schedules. Reduce temperature for unoccupied hours.

Keep windows and doors closed whenever the heating is on. When the weather allows, ventilate with fresh air rather than running mechanical ventilation systems. CO2 sensors can make sure ventilation is only running when needed.

Lighting can be another source of high energy use for rehearsal rooms. See Sustainable Buildings for advice on shifting to LED lights. Consider installing motion sensors for lighting systems.

If you have to hire rehearsal space, then if possible choose rehearsal spaces that minimise travel, and provide the most sustainable environment.

Managing Rehearsals

Sustainable Productions offers further advice on rehearsal practice, such as planning which props and costumes you need in advance (where possible) so as to avoid last minute ordering and deliveries.

Catering for rehearsals needs to follow the same principles as elsewhere: avoid single-use coffee cups and packaging for food. If you regularly send out to the same suppliers, then seek out a local supplier who can deliver sustainably, offer plant-based options, and uses sustainable packaging.

Reduce the number of paper scripts you print. Not every change needs a full new script for everyone. Research materials can be shared on laptops. Some casts and directors may be happy to work with digital scripts on tablets.

IN THE TOOLKIT

Digital Management
Paper and Printing
Offices Action Plan
Workshops Guidance
Dressing Rooms and Rehearsals Action Plan

6 Dressing Rooms

Much of the guidance for rehearsals also applies to Dressing Rooms. Make sure you're heating or cooling dressing rooms only when they're occupied. In addition, it's important to make sure that hot water for showers is provided as sustainably as possible at the times actors need it. Rather than offer separate fridges in each room, a shared fridge in the Green Room will use less energy.

For laundry, make sure equipment is efficient and well-maintained. In replacing elderly equipment, research replacements that minimise energy and water use. Avoid harmful cleaning and care products for wardrobe, wigs, hair and make-up. Avoid tumble-drying if you can.

See the Sustainable Productions Toolkit for more on wardrobe, wigs, hair and make-up.

7 Backstage

Guidance for Stage Managers and production Staff can be found in Sustainable Productions. As with all other areas, make sure your building and building controls are set up for sustainable operation (see next section).

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6 Managing Buildings

1 Introduction

Sustainable Buildings

Volume two of the Theatre Green Book, Sustainable Buildings, provides guidance on making buildings more sustainable by:

• Improving the building 'envelope' to minimise energy loss through better insulation, double-glazing and draught lobbies.

• Improving building services such as heating, cooling and hot water to make them as efficient as possible.

• Generating on-site energy through renewables like solar panels and heat pumps.

Sustainable Buildings includes an online 'Home Survey Tool' that allows building owners or managers to enter details about their premises. It generates an initial Sustainability Plan for:

• Easy Wins that you can implement straightaway.

• Maintenance projects you can plan into maintenance programmes.

• Capital Projects that need fund-raising and planning consents.

In each case, it ranks sustainability interventions in order of impact, to make sure you tackle the most important things first.

Commissioning a voluntary Display Energy Certificate (DEC) tells you how your building performs currently on sustainability. *(See Sustainable Buildings for more information).*

Managing Buildings

This section is about how to manage your facilities as efficiently as possible, whether or not they've been upgraded. However, it makes sense to start with a Sustainability Plan. Facilities Managers can make sure they're putting in hand the Easy Wins quickly, and planning maintenance programmes to implement as many sustainability improvements as possible.

2 Controls

Good building controls are the key to running buildings on as little energy as possible. Zoned heating makes sure empty rooms aren't being warmed. Timers shut off fans and cooling systems. Movement detectors switch off the lights when everyone's left. If your controls don't allow careful energy management, make it a priority to upgrade them. Until then, set in place operational procedures to ensure lights and heating are switched off.

A Building Management System provides automatic control over your use of energy. But 'BMSs' need to be set up correctly, with good training for the staff who run them.

See the Toolkit for more guidance on services controls and BMSs.

3 Maintenance

Well-planned maintenance (Planned Preventative Maintenance) is essential to sustainable building management. Maintenance:

• Prolongs the life of building components, plant and joinery.

• Ensures services and plant operate as efficiently as possible.

• Prevents expensive building failures that disrupt operations and divert expenditure from sustainability upgrades.

A Planned Preventative Maintenance Programme allows you to track the expected lifespan and maintenance needs of each element of your building, from roofs to boilers. This helps you plan upgrades effectively. For example, if you know your roof will need replacing in five years' time, you can plan around that for upgrading insulation. *See Sustainable Buildings, Section 11, 'Maintenance', for more advice.*

A Planned Preventative Maintenance Programme gives advance warning of capital expenditure needed to replace roofs or theatre seating, allowing Boards and management to plan capital projects in advance.

4 The Right Skills

Larger theatres have in-house teams to maintain and manage facilities. In smaller companies, facilities management is likely to be combined with other responsibilities. In that case it's worth developing relationships with maintenance companies, and drawing on their expertise.

First, work out your responsibilities (maintenance may be up to your landlord). Next, list your 'assets', from elements of the building through to services installations. Finally, identify who can help you assess the current state of each (it may be a maintenance company, a local supporter, or a board member with relevant skills).

In many teams, knowledge is held by long-serving members of staff – but not always shared. Make a checklist of the information needed to manage the building sustainably, so that good practice is passed on through staff changes, and you have clarity around handover, induction, awareness & responsibility. *See the Toolkit for more guidance.*

Regular training and continual professional development is important to keep staff knowledgeable and informed of current health, safety and environmental guidance, aspects of statutory and regulatory requirements, and industry good practice.

Payback

Using less energy can generate massive savings for an organisation. The 'payback' on upgrading controls – the time it takes to pay back their cost through lower energy bills – is often very quick.

The same applies to many other sustainability measures. If you're hesitating about investing in upgrades, it's worth calculating the savings each will achieve.

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5 The Right Information

Some theatres have only patchy information about the state of services, whether the roof is insulated and who last fixed the gutters. Others have more complete Operators' Manuals and Health and Safety Files, dating from previous capital projects. It's important to collate all the information you have, fill in gaps when you can, and update information as works are carried out.

Ideally, theatres and companies who manage buildings should maintain a detailed asset register, which provides an inventory of all maintainable assets and their relative condition. This document should include schedules of key maintenance tasks, how often they need to be carried out, and what they are likely to cost.

In the absence of other information, it's worth checking back through utilities bills to see if costs have fluctuated unexpectedly over time. That may give early warning of systems working inefficiently.

Technology

Larger organisations manage facilities with Helpdesk platforms, Computer Aided Facilities Management (CAFM) or Building Management System (BMS).

A Helpdesk receives, logs, and responds to service requests raised by staff.

A Computer Aided Facilities Management (CAFM) system automates functions such as scheduling works. It needs good staff training, and a dedicated staff member responsible for reviewing and updating the asset database.

Building Management Systems (BMS) can significantly improve management and efficiency, as well as improving environment and reducing costs. Ensure the BMS is functioning appropriately and users are fully trained.

The 'lock-down year' of 2020/2021 can set a baseline for the energy the building was consuming when closed.

Reducing Energy

Even if you can't afford building upgrades, it's still essential to make sure you're running your premises as efficiently as possible with the tools at your disposal.

• Maintain all services systems (lighting, heating, cooling ventilation, hot water, small power, lifts, stage lighting and technology), to run as efficiently as possible.

• Taking each in turn, use the controls you have to make sure they're drawing power only when they're needed. Timers and room thermostats can be set to reduce energy use. If necessary, split heating into separate zones to avoid heating unused rooms. Movement detectors can automatically switch off lights when rooms are unoccupied.

If you use manual procedures, for example, to switch on ventilation or cooling in your auditorium, then review the procedure to see if it's unnecessarily wasteful.

Reducing the energy you draw can provide huge cost benefits. For example, one theatre discovered that ventilation fans were running continuously in its car park. By connecting the fans to carbon monoxide monitors, they minimised their use – and saved thousands of pounds every year.

Energy Sourcing

As the National Grid is increasingly powered by renewables, it makes sense to switch your energy need from oil or gas to electricity.

You can make choices about where you buy your electrical energy. Buying from guaranteed sustainable sources may be your quickest route to zero carbon. Smaller theatres might join an 'Energy Basket' of local companies to buy green energy more cheaply.

See Sustainable Buildings for more information on this. See the Toolkit for energy supply best practice, and a list of 'green' energy suppliers.

IN THE TOOLKIT

Building Services Toolkit
Building Management Systems
Upgrading Services Controls
Example Asset Register
Lifecycle Assessment
Energy Purchasing

7 Water

You can reduce water use by:

• Installing bags in toilet cisterns to lower water consumption.

• Installing low-flow taps and auto-stop features on taps.

• Checking you only heat water when people need it.

8 Biodiversity

Theatres are often located in urban areas. Preserve and enhance biodiversity by introducing pollinator-loving plants or greening roofs. Bird and bat boxes can provide urban habitats, as can 'insect hotels' (see https://hyonteishotellit.fi/about-the-insect-hotels2020-campaign/).

9 Housekeeping

Day-to day upkeep of the theatre can be made more energy efficient and environmentally friendly. Here's where to focus:

• Laundry: wash on cold cycles, use eco-friendly detergents, hang dry when possible or seek dry cleaners that use wet cleaning.

• Use eco-friendly chemicals like Method.

• Soaps: Organic soap is a fail-safe way to avoid artificial chemicals. Prioritise vegan soaps to promote animal welfare. Reduce products containing palm oil.

• Foam soaps are good, as you get more out of a smaller container. Utilise re-fills wherever possible. Buy in bulk to reduce volumes of single-use plastic and delivery frequencies.

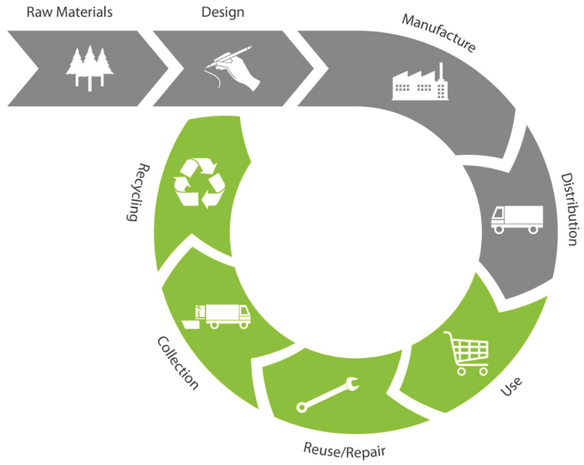
• Hand towels or hand driers: There is not much difference between the two from a carbon consumption perspective so stick to what you have. Hand towels are generally considered more hygienic, in combating pandemic infection.

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7 Waste



The Waste Hierarchy



The Circular Economy

1 The Waste Hierarchy

The Waste Hierarchy (see above) sets a framework for managing waste sustainably. First prevent and reduce waste, before re-using (for example, a glass or crockery plate), recycling (for example, recycling the material in a paper cup to make new paper products), or recovering energy value from discarded material (for example, burning timber products as biomass.

Only after these options have been considered should anything be finally treated and safely disposed of.

2 The Circular Economy

Incorporating these principles will encourage staff and audiences to make sustainable choices. It will help us move from a linear economy, where raw materials are turned into objects and then thrown away, to a circular economy, where resources and materials are kept in use for as long as possible.

IN THE TOOLKIT

Waste Ideas Toolkit

3 Reduce/Reuse

The best way to reduce waste is to avoid producing it in the first place. To achieve this:

- Audit supply chains to identify where you can avoid waste at source.
- Review activities such as catering, ticketing, and education to see where waste is generated and how you can produce less.
- Encourage behaviour in visitors and staff that result in less waste generation.

In addition:

- Choose suppliers who allow packaging, including crates and pallets, to be returned once no longer required.
- Choose products that allow containers such as bottles to be returned for reuse.
- Where packaging can't be returned, reduce it as much possible. Wherever you can, replace packaging with edible or reusable alternatives.
- Eliminate single-use plastics.
- Reduce food waste through tracking food sales and consumption to avoid over-ordering.
- Cut paper waste by encouraging paperless offices and administration.

See volume one of the Theatre Green Book, Sustainable Productions, for guidance on reducing and reusing materials in productions.

4 Recycle

Once waste is generated and the products can no longer be reused, reduce how much waste is sent to landfill (or energy recovery) by increasing recycling rates. It's important to limit contamination so as to make sure recyclable material is of good quality:

- Identify the most common waste materials and capture them as separate streams.
- Train staff to understand the waste management and recycling system, and how waste products are streamed.
- Educate visitors to dispose of waste properly and reduce contamination.
- Provide sufficient bins to allow for on-site separation of multiple waste streams (e.g. residual, dry recyclables, organic waste).
- Provide clear, concise recycling signage to guide staff and visitors.
- Ensure waste contractors follow the same waste separation strategy. Check they're committed to monitoring and inspecting where sorted waste ends up.

5 Recovery / Disposal

Waste which contains energy (such as timber products, or spent cooking fat) can be disposed of through contractors who recover energy as biomass.

Landfill disposal should be handled by contractors able to ensure safe best practice treatment of all waste products.

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8 Travel and Transportation



1 Introduction

Travel is a 'Scope 3 emission'. In other words, it isn't the direct responsibility of the theatre like the gas burnt in a boiler (Scope 1), or the energy produced in a power station (Scope 2). The energy consumed in travel is an indirect consequence of the theatre's operations.

As with many scope 3 emissions, theatres don't have full control over travel – they can't tell audiences how to arrive for a production, or re-write bus timetables to suit show times. Nonetheless, there are concrete steps they can take to support sustainable travel choices for:

- Audiences
- Staff
- Visitors, including artists and freelancers

As for 'transportation' – deliveries and touring – theatres can choose sustainable options to minimise their carbon footprint. Green travel policies can also cut the carbon footprint of staff travel for work.

In all cases, the key to cutting travel emissions is to:

- Reduce the number and length of journeys where possible.
- Identify sustainable travel options and make them easy to use.
- Promote sustainable choices, for example by educating audiences, staff and visitors about the energy consequence of car travel, informing them of alternatives, and incentivising sustainable alternatives.

A Green Travel Plan can bring all these initiatives together.

2 Sustainable Travel Options

The most sustainable ways to reach a theatre involve walking, cycling, electric vehicles or public transport.

- Make sure signage for pedestrians is effective to point pedestrians to the theatre. Work with Local Authorities to make sure routes are well-lit, well-maintained and safe.
- Provide adequate numbers of bike racks, as well as cloakroom facilities for folding bikes. Secure bike pods enable staff to cycle. Secure bike storage might be found internally by converting a store or unused office. Some audiences or visitors may be helped by charging points for electric bikes. Marketing and website information can inform audiences and visitors of the facilities you offer.
- Lobby the Council for well-signed and marked cycle routes to your premises. In some places it may be possible to partner with a local city-based bike scheme.
- If you have a car park, install electric car charging points. Your website and staff information can promote taxi companies with electric vehicles.
- It may be hard to improve public transport to your premises – although it might be worth lobbying local bus or train companies. But clear information about public transport and timetables can be shared on your website, with links to sales, service information and walking apps such as mapmywalk. In some cases, it may be worth adjusting show times to suit local train or bus timetables.

3 Audiences

No one wants reduced travel to mean reduced audiences. However, you can encourage audiences to reduce their journeys, for example by combining theatre visits with other tasks. A single visit for shopping and theatre might halve someone's distance travelled.

Travel-share schemes can also reduce journeys, with audience members sharing car transport, or (electric) taxis home.

A survey of audiences can gather data about current practice, and give you a baseline to work from.

The key to progress is clear information about sustainable travel options. These can be promoted through marketing information at the point of ticket sales, and on your website. It's easiest to get the message across if you've already engaged the audience in your sustainability journey (see section 4).

Measuring Travel

As with most aspects of sustainability, you'll only know if you're making progress if you track data effectively.

Aim to gather all the information you can about how audiences reach your venues, so you can measure change over time – and update audiences as emissions drop.

Do what you can to measure staff and visitor travel. Set targets for progressive improvement year-on-year, and use the data to focus on areas of improvement.

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Sustainable travel can be incentivised by:

• A slight reduction of ticket costs for use of public transport, which can be promoted through ticket sales.

• Reducing car parking provision over time.

• Suggesting audience members offset carbon emissions for travel at the point of purchase. It may be possible to link to offsetting schemes, in-putting travel distance through postcode information.

Where theatres attract international audiences, websites can help with information about sustainable ways to travel from abroad.

4 Staff

There are several strategies for reducing staff travel:

• Flexible working, to reduce commuting.

• Video conference calls to reduce travel to meetings. Long-distance journeys should only be undertaken if there's a clear reason why a zoom call won't work.

• Time management to reduce the numbers of long-distance journeys. For example, a single journey can be planned to serve multiple meetings.

• Reducing single journeys in taxis.

Sustainable travel options can be promoted and incentivised by:

• Signing up to the cycle-to-work scheme to subsidise cycle purchase.

• Providing more secure bike storage (and tools for bike repair).

• Providing shower facilities for cycle commuters.

• Subsidising local transport bus passes.

• Timing meetings to help staff avoid rush hours.

Your Green Travel Plan can gather information in one place, helping staff use less polluting forms of transport in all aspects of their work.

5 Visitors

To reduce visitor travel:

• Use local contractors if possible.

• For visiting artists, provide temporary accommodation close to rehearsal spaces and venues. Try to create longer residencies for out-of-town artists. For journeys to theatre or rehearsals, promote sustainable travel options.

• Adopt video-conferencing where possible.

• Consider where visiting artists and freelancers are based. It may be possible to employ freelancers based nearby. Some theatres may even choose to cast locally.

6 Deliveries

You can reduce journeys by:

• Planning ahead to avoid multiple deliveries from the same suppliers.

• Ensuring Production and Storage facilities are in close proximity.

• Sourcing materials locally.

To ensure deliveries are as sustainable as possible:

• Consider replacing your own transport with an electric van.

• Seek out suppliers who offer sustainable deliveries.

7 Touring

Sustainable touring is essential if theatre is to move towards sustainability, but still reach audiences. The key is to:

• Reduce the amount you tour with.

• Reduce the number and length of journeys.

• Choose sustainable transport wherever possible.

There's more advice on sustainable touring in the first volume of the Theatre Green Book, Sustainable Productions.

Carbon Offsetting

'Offsetting' emissions means paying to compensate for your greenhouse gas emissions by cancelling out emissions in another part of the world. For example, you can pay to plant trees which will notionally make up for the carbon emitted by your journey.

However, offsetting is always a last resort and should not be considered until all other ideas in the guide are explored.

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9 Contracts and Procurement

1 Introduction

Theatres and companies don't control everything. They depend on suppliers of food, plywood, paper, and cleaning products. They work with contractors for cleaning, building maintenance, and the upkeep of technical equipment.

To make your operation sustainable, you need all those third parties to share your values and work to the standards you set.

That needs:

- Well-defined standards that you communicate clearly.
- Procurement rules and practices that prioritise sustainability, identify companies with shared values, and separate meaningful action from 'greenwash'.
- Contracts that enshrine sustainability requirements.
- Follow-through in monitoring performance.

2 Standards

Over time, specialist theatre suppliers and contractors will become familiar with the Theatre Green Book, so you can refer to it in setting standards. Green Book guidance is written in plain language, and should make sense with little extra explanation.

External standards and guides also act as references for sustainability, such as the Sustainable Restaurant Association's Food Made Good framework *(see Toolkit)*. Independent certification is essential for any product claiming to be sustainably sourced or zero carbon.

If you need to define standards for yourself, make sure they cover:

- Origin of products (i.e. where originally manufactured, and where raw materials come from).
- Delivery / transport methods and packaging.
- Certification.

3 Procurement

Sustainable procurement identifies third parties who will deliver what you need in a sustainable way. It helps to identify partners who share your standards, and develop long-term relationships with them, encouraging them to be part of your sustainability journey.

Procurement criteria

Make sure sustainability is ranked alongside cost and quality when you select contractors. When tendering goods or services, make sustainability a high priority, and set scoring systems to reflect this. Include sustainability in questionnaires.

Information

In reviewing companies' information, it can be hard to separate 'green' claims from reality, and easy to get lost in the detail of where components come from and which standards you can trust.

Request transparency across the whole life cycle of third party products. Challenge green claims, and request further information on certification schemes. Ask to see environmental policies or sustainability credentials. Wherever possible, require independent environmental certification.

Ask for information on transportation methods and distances. Include questions about packaging, treatment of waste, and whether waste disposal can be included in contracts.

Above all, be clear about your own standards and ask for verification that contractors' proposals will meet them.

Central procurement

For larger organisations, central procurement manages standards across everything you do, and prevents different departments having to reinvent the wheel with every tender. Checklists of approved suppliers saves time on hunting for appropriate partners.

The Government offers useful guidance on sustainable procurement: https://www.gov.uk/guidance/sustainable-procurement-tools

See the Toolkit for a guide to sustainable procurement.

4 Contracts

New contracts with internal staff or external suppliers or contractors should be revised to incorporate sustainable principles, commitments and specific roles. These may involve the right to reuse and recycle products where necessary.

Key Performance Indicators (KPIs) an be introduced to measure performance. They will need active management (see below).

It's sometimes possible, by agreement, to amend existing contracts to incorporate sustainable incentives, roles and features. Contract riders can bring pre-existing contracts into line with sustainability targets.

See the Toolkit for an indicative contract rider for supply contracts.

5 Monitoring Performance

Key Performance Indicators in contracts help monitor performance and ensure final outcomes. They will need active management, however. Staff time must be set aside to monitor performance and raise issues.

Meaningful progress on the climate emergency comes from better actions, not just better intentions. If you have limited time and resource, identity the actions which have most impact. Follow through on them, for example by asking to see certificates, or verifying distance travelled in delivery.

IN THE TOOLKIT

Sustainable Procurement
Indicative Contract Rider
Scope 3 Emissions Audit

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sustainable operations

THE GUIDANCE

"Our industry must embrace sustainability to ensure its future." SiPA

3 Steps Towards Sustainability

Choose which Green Book standard to work to.

		1 Baseline	2 Intermediate	3 Advanced
Organisation	Management	**B.1** A 'Green Team' to guide progress in each category. Senior Management and Board sustainability sponsors.	**I.1** As Baseline	**A.1** As Baseline.
	Staff	**B.2** A staff sustainability network.	**I.2** 25% of staff to have received climate literacy training.	**A.2** 75% of staff to have received climate literacy training.
	Communications	**B.3** A communications strategy to share progress on sustainability.	**I.3** Regular sustainability information on communications with audiences, staff and visitors.	**A.3** As Intermediate.
Front of House	Marketing & Ticketing	**B.4** Implement "Marketing and Ticketing" toolkit guidance.	**I.4** As Baseline.	**A.4** As Baseline.
	Catering	**B.5** 40% of plant-based items on the menu (by count). Meat to be high wellfare "Red Tractor" certified. All fish to be MCS Rated 3-4.	**I.5** 60% of plant-based items on the menu (by count). Meat to be high wellfare "Red Tractor" certified. All fish to be MCS Rated 2-3.	**A.5** 80% of plant-based items on the menu (by count). Meat to be high wellfare RSPCS certified. All fish to be MCS Rated 1-2.
		B.6 Sustainable Restaurant Association (SRA) Food Made Good rating of 1 star, or equivalent.	**I.6** Sustainable Restaurant Association (SRA) Food Made Good rating of 2 stars, or equivalent.	**A.6** Sustainable Restaurant Association (SRA) Food Made Good rating of 3 stars, or equivalent.
Back of House	Workshops	**B.7** Review "Workshops" toolkit guidance.	**I.7** Implement "Workshops" toolkit guidance.	**A.7** As Intermediate.
	Staff and Offices	**B.8** Review "Offices Action Plan" (see toolkit).	**I.8** Implement "Offices Action Plan" (see toolkit).	**A.8** As Intermediate.
	Dressing rooms	**B.9** Review "Dressing Rooms and Rehearsals Action Plan" (see toolkit).	**I.9** Implement "Dressing Rooms and Rehearsals Action Plan" (see toolkit).	**A.9** As Intermediate.
Building	Building controls	**B.10** All heating and cooling to be controlled by timers, or ensure operational procedures in place to avoid energy wastage.	**I.10** All heating and cooling to be controlled by timers.	**A.10** As Intermediate.
	Metering	**B.11** Commit to at least monthly recordings of electric and gas metering. Identify sub-metering opportunities. Commission an annual Display Energy Certificate.	**I.11** As Baseline, plus: Implement submetering opportunities.	**A.11** As Intermediate, plus: Commit to at least an annual review of sub-metered results to determine energy saving opportunities.
Waste	Waste	**B.12** Progressive 5% reduction in overall waste generation each year.	**I.12** Progressive 5% reduction in overall waste generation each year and 5% reduction in food waste each year.	**A.12** Progressive 10% reduction in overall waste generation each year and 10% reduction in food waste each year. Eliminate single use plastic.
		B.13 Progressively increase the proportion of reusable items to disposable by 5% each year.	**I.13** Progressively increase the proportion of reusable items to disposable by 10% each year.	**A.13** Progressively increase the proportion of reusable items to disposable by 20% each year.
		B.14 Separate waste into 2 waste streams: cardboard/paper and other mixed recyclables. Undertake a waste audit and determine top 5 key materials and baseline contamination levels.	**I.14** Separate waste into 3 waste streams: cardboard/paper, metals and plastic based materials. Progressively reduce contamination levels by 10% each year.	**A.14** Separate waste into top 5 key materials identified by the audit. Progressively reduce contamination levels by 20% each year.
		B.15 Less than 10% residual waste to be sent to landfill.	**I.15** Less than 5% residual waste to be sent to landfill.	**A.15** Zero waste to be sent to landfill.
Travel	Staff and Offices	**B.16** Record business (non-commuting) travel. Encourage sustainable transport options for staff journeys to work.	**I.16** Baseline plus: Reduce business travel by 30% each year. Produce a Sustainable Travel Plan for staff.	**A.16** Baseline plus: Reduce business travel by 40%. Produce an Sustainable Travel Plan for staff.
	Shows	**B.17** Explore low-emission options for land transport. Reduce air freighting of equipment progressively from a baseline year.	**I.17** Produce a Sustainable Travel Plan for productions. Record air miles travelled by artists. Reduce air miles by 10% each year.	**A.17** As intermediate. Reduce air miles by 20% each year.
	Audience	**B.18** Encourage sustainable transport options, and monitor audience transport choices.	**I.18** As Baseline.	**A.18** As Baseline.
Contracts & Procurement	Contracts	**B.19** Clearly articulate corporate sustainability objectives within all contracts.	**I.19** Set supplier performance targets to contribute to attainment of sustainability objectives.	**A.19** Consider commercial arrangements that provide access to third-party funding in delivering sustainability objectives.
	Procurement	**B.20** Adopt e-tendering to minimise paper waste through hard copy tender submissions.	**I.20** Sustainability criteria are included as scored elements in all tenders.	**A.20** Suppliers to demonstrate compliance with organisation's sustainability requirements.

sustainable operations

TOOLKIT

"We know it won't be easy and that we can't do this alone. But we also know that with the right tools and guidance, our commitment to a truly sustainable theatre sector can become a reality." European Theatre Convention

A toolkit of resources for working sustainably can be found on the Theatre Green Book website at:

https://theatregreenbook.com/sustainableoperations-toolkit/

Acknowledgements and Thanks

How the Green Book has been prepared

The Theatre Green Book is built on a number of core principles:

- The initiative is backed by a broad partnership of organisations that span the full range of theatre.
- The Theatre Green Book absorbs and learns from existing guidance for the sector. It does not set out to reinvent the wheel, but to define common standards and shared guidance that will make the journey easier for everyone.
- The guidance is built on numerous conversations and focus groups with working theatre practitioners of all sorts. It reflects the actual experience of running theatres and making theatre.
- The Theatre Green Book's guidance is underpinned by the expertise of sustainability consultants Buro Happold.

Sustainable Operations is based on the input of numerous theatre owners and managers, and others, whose names are acknowledged in the next section.

Future versions of the Green Book

Sustainability advice will change. Future developments of embodied carbon and the circular economy will alter the landscape of sustainability. Emerging technologies like carbon capture may offer new options.

But these things typically change over long periods of time (years and decades). We are in a climate emergency now, and so the best possible thing to do is plan for what you know will be impactful now, and alter the plan as and when required. This guidance will be updated with time to ensure new advances and new technologies are considered.

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