



isla.

A CLOSER LOOK

**Why the materials
you use matter more
than you think.**

WHAT THE DATA TELLS US ABOUT EVENT
MATERIALS, EMISSIONS AND COST.

Events generate carbon emissions across many categories, from the energy used to power a venue to the travel required to get people there. This report series - A Closer Look - focuses on what happens when you look more closely at one specific category and ask what the data is actually telling us.

Drawing on data from TRACE, isla’s event carbon measurement platform, this report examines what materials are being used across the industry, where they come from, and what happens to them afterwards. The findings point to a consistent pattern: too much virgin material, too much single use, and too much going to waste, with a huge cost consequence that sits alongside the carbon one.

Within TRACE, materials are measured across two categories: build production and graphics. Together, these represent what most people mean when they talk about event materials, and they are the basis for everything that follows in this report.

What you’ll find in this report

- How materials rank as a share of your controllable emissions footprint
- What the data tells us about sourcing, weight, and end-of-life across the industry
- Why carpet deserves its own conversation
- How a more circular approach to materials reduces emissions and cost at the same time
- Practical actions you can take, and questions worth asking of your suppliers and venues

About the dataset

The dataset referenced throughout this report spans 6,400+ material entries [across 789 events in 2025]. It covers global events with particular depth in UK, EU, and US markets.

What is TRACE?

TRACE by isla is an event carbon measurement platform built by event professionals for event professionals. Through measuring your event and operational emissions, TRACE provides credible carbon insights you can act on with confidence.

Find out more about TRACE

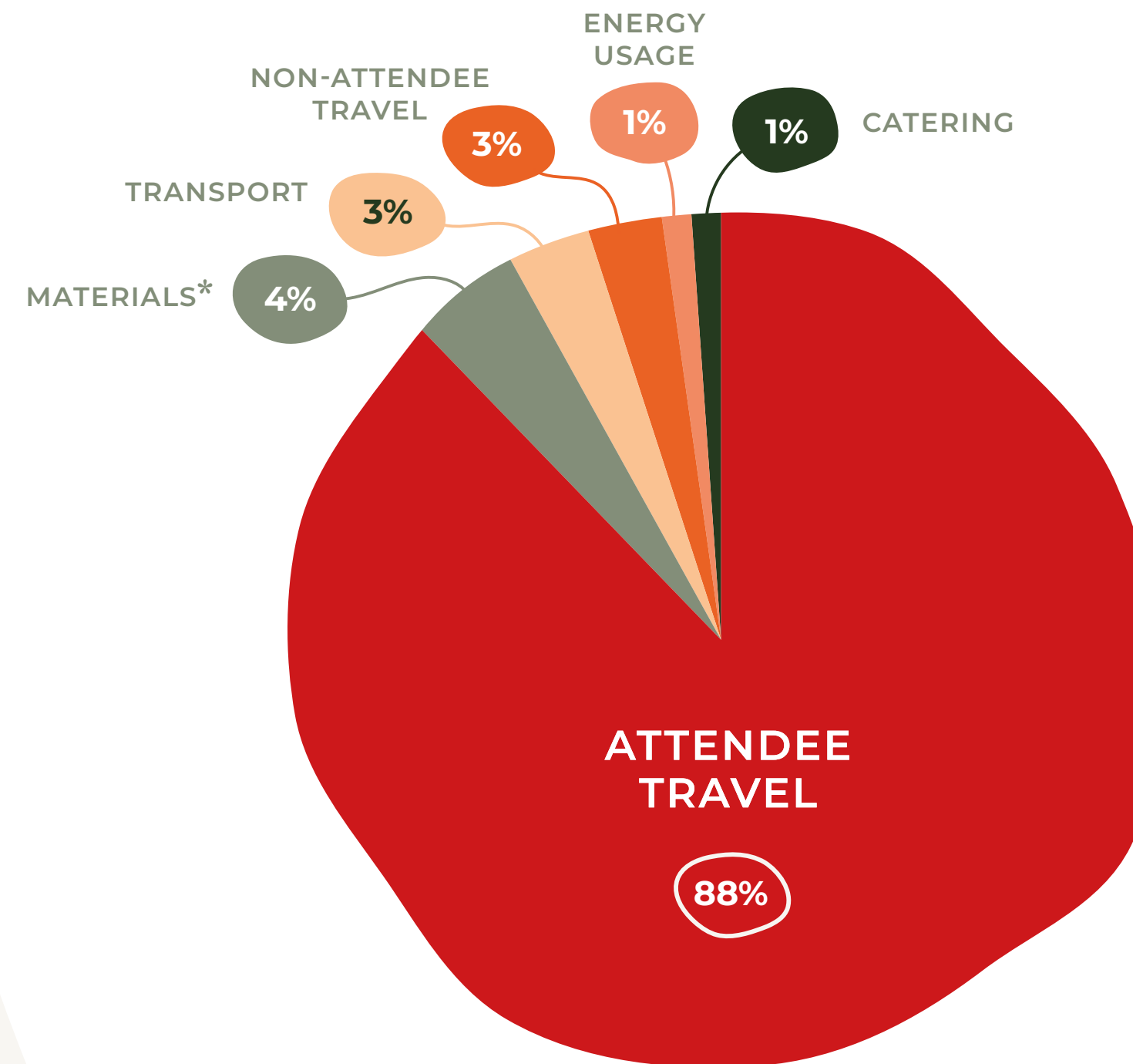
MYTH:

Materials will never move the needle - travel will always dominate the footprint.

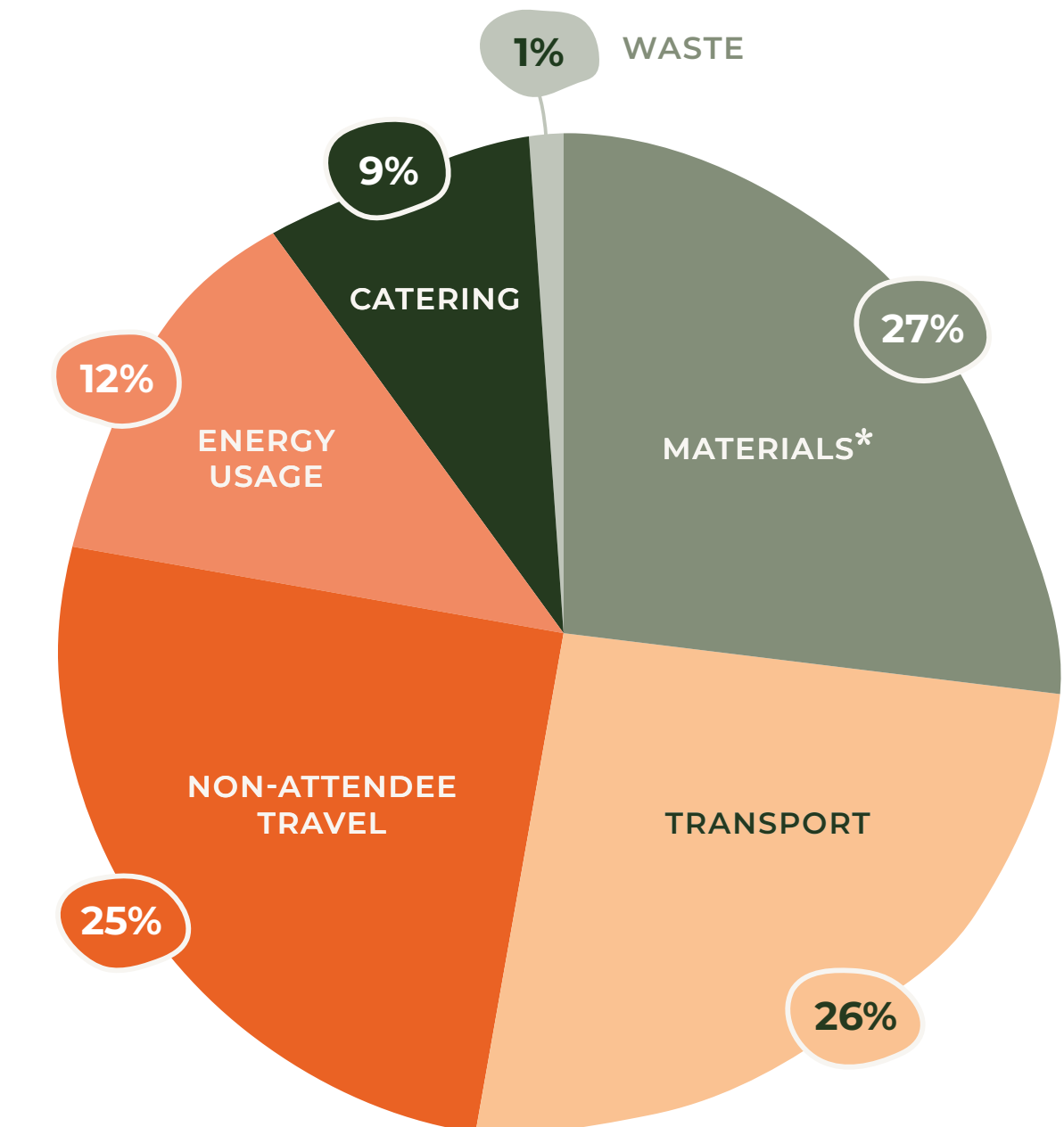
Audience travel dominates total event emissions, but remove it, and materials jump to 27% of what remains. Remove staff travel too, and materials represent 31% of your entire controllable footprint, making it the largest category you can directly act on.

TRACE data across 6,400+ entries for materials shows that material-selection is an area with significant potential to reduce emissions and cut costs.

Total emissions by event activity



WITH
ATTENDEE TRAVEL



WITHOUT
ATTENDEE TRAVEL

* Within TRACE, materials are measured across two categories: build production and graphics.

Both weight and emissions matter

Two numbers tell the materials’ story: weight and emissions. And you need both.

Emissions tell you which materials have the biggest impact on climate. But weight tells you something equally important: whether you’re moving towards a genuinely circular model. Lower material volume means less to produce and buy, to transport, and to waste.

Decarbonising events is as much about how much material you’re using as what it’s made of. That’s why we measure both: weight as a proxy for circularity, with low volumes of materials indicating a lower waste system, and emissions as a measure of impact. Measuring one without the other only gives you half the picture.

When it comes to designing event environments, choosing lower-emission materials is necessary, but will only get you so far. Wood, widely regarded as one of the more sustainable build options (as evidenced by the relatively low proportion of emissions), generates significant transport emissions simply due to its weight.

TRACE data shows that the emissions associated with moving the volume of wood recorded in the dataset, **1,255 tonnes**, just **10km is equivalent to 1.86 tCO₂e**. Move that wood more than 400km, and transport emissions exceed those from the materials themselves. That’s roughly the distance from London to Frankfurt.

What should this tell us? The impact of a design choice isn’t isolated to the material. Every decision carries weight - sometimes literally - across the full system of an event from logistics to waste to procurement, with both financial and environmental considerations.

Whether your priority is to manage waste, emissions or cost, the solution is the same. Use less.

Less material means less to transport, less to dispose of, and fewer emissions from sourcing. Every kilogram of material you can use again is a material kept in circulation and money saved from the bin.

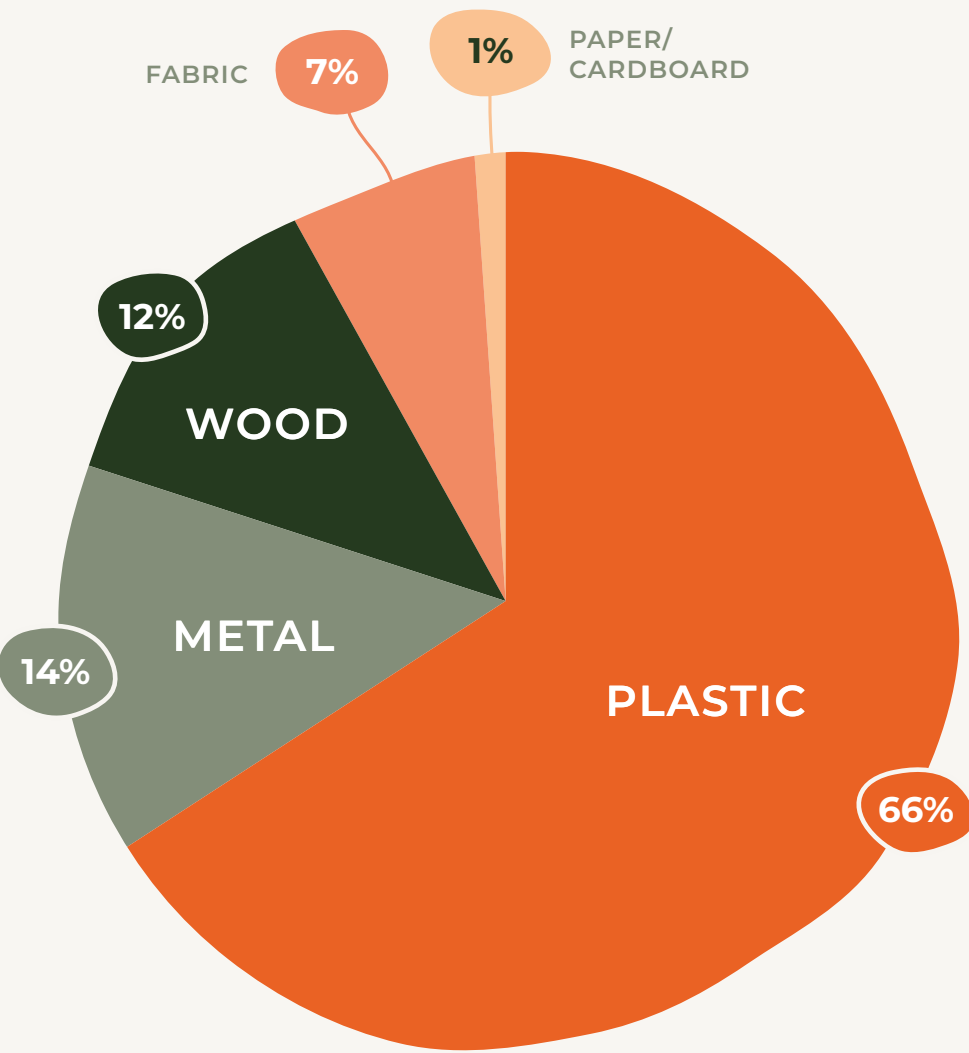
In build:
carpet is the #1 emitting material.

In graphics:
non-PVC standard banners is the material with the highest total emissions. (e.g. Gecko banners)

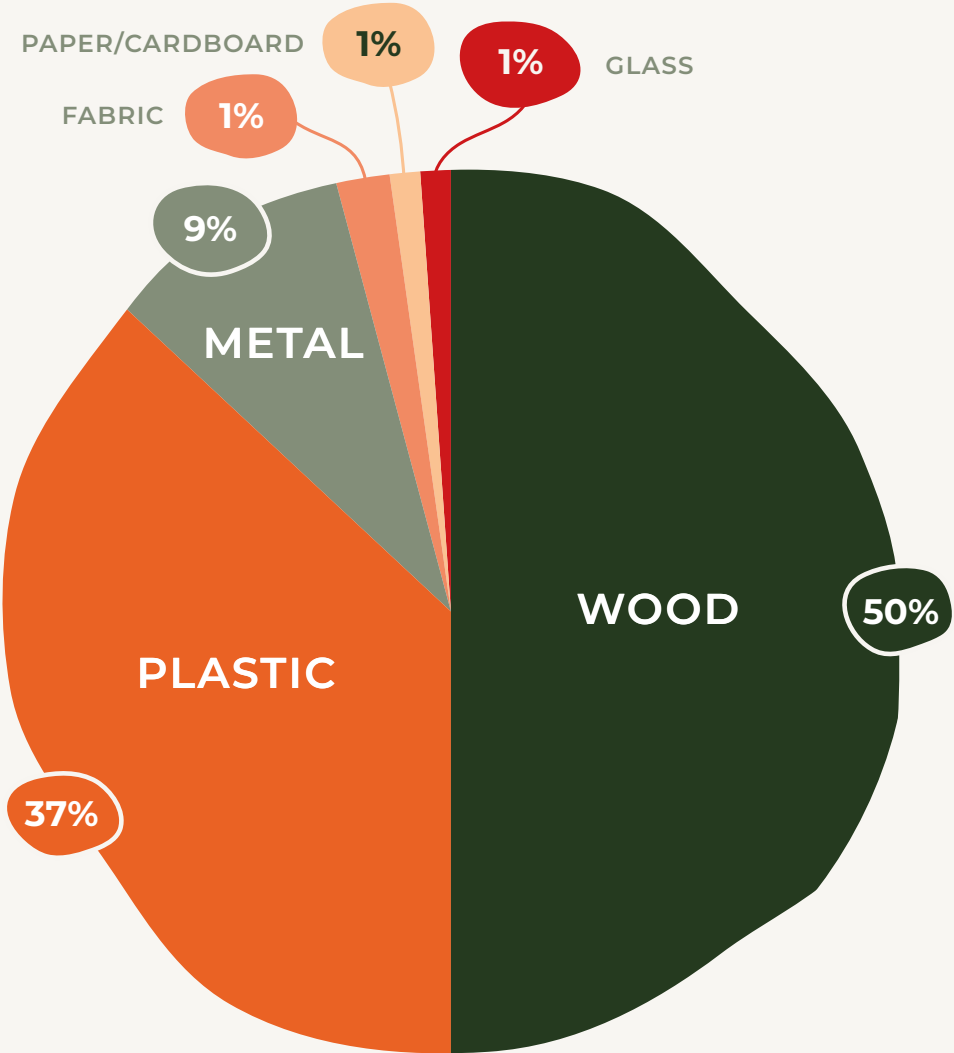
TIP

Don’t spread your attention evenly across your materials inventory. For most organisers, carpet and banners will be your highest-impact targets. Start there. Measure your volumes, confirm whether that holds for your events, then act accordingly. Everything else is secondary until your biggest emitters are under control.

Emissions (kgCO₂e)

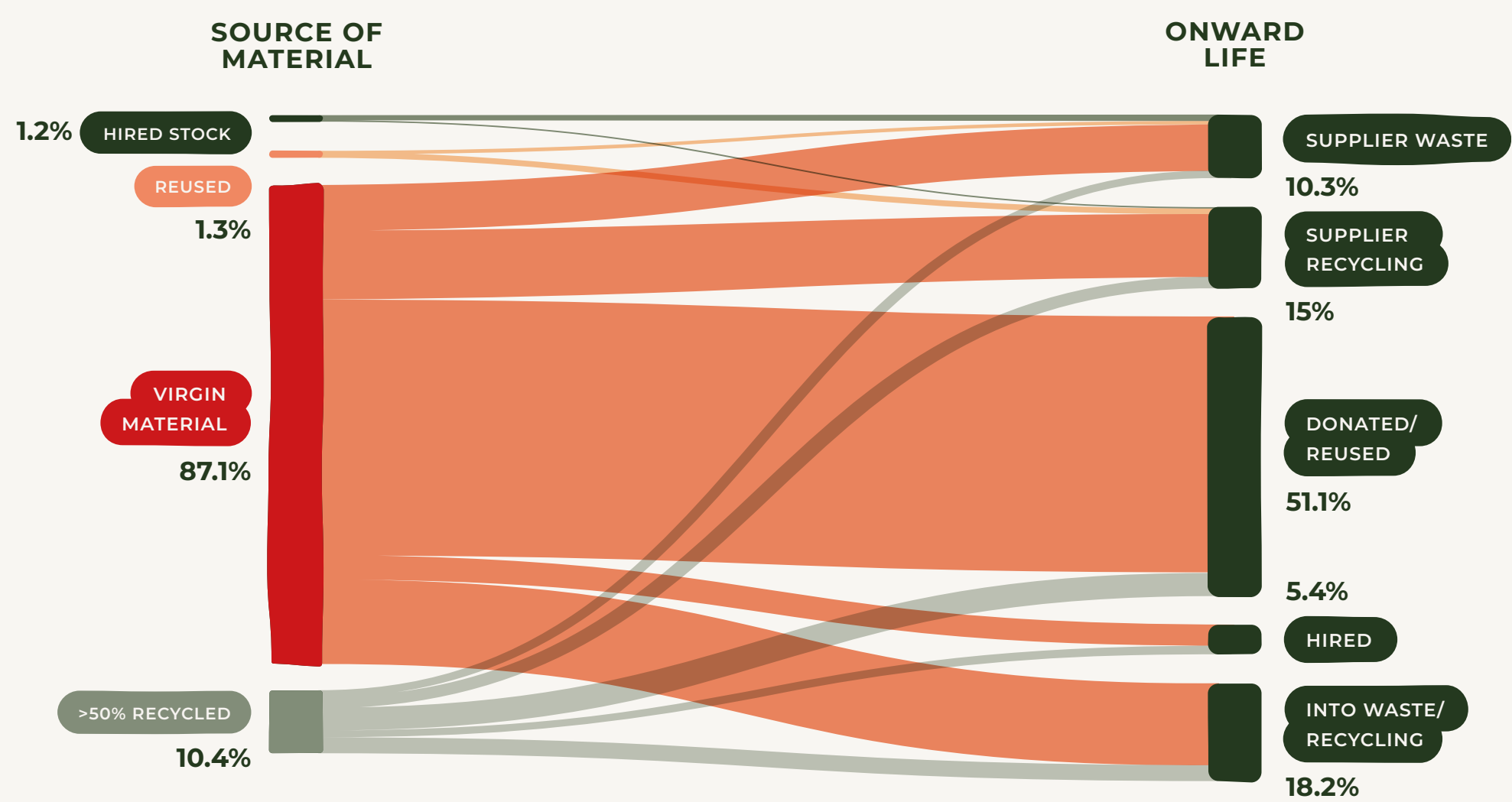


Weight (kg)

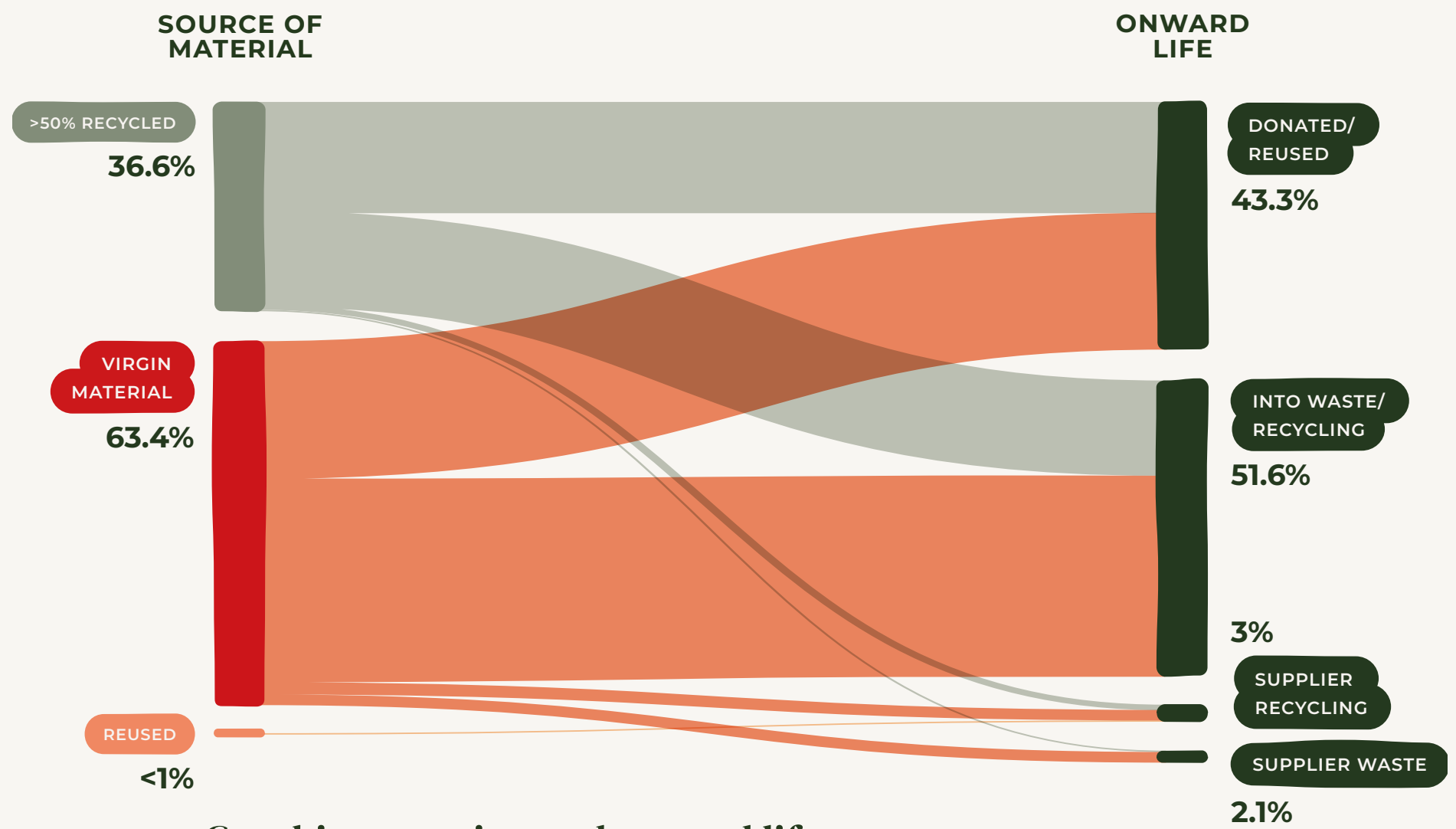


Source and end of life

The data in these graphs tell a circularity story. When materials are predominantly virgin and predominantly single-use, that’s a carbon problem and it’s money leaving the system. The goal of tracking source and end of life is to understand how far the industry is from a genuinely circular model, and where the biggest gaps are. This data provides insight into that, showing that, largely, materials are not being reused and recovered, which is leading to lost cost.



Production materials sourcing and onward life



Graphics sourcing and onward life

84%

of materials measured in TRACE are virgin materials.

2.7 tonnes

of virgin materials measured in TRACE, per event.

42%

of build materials will only be used once.

69%

of graphics will only be used once.

TIP

Build a sourcing hierarchy into your event brief before anything is specified: hire or reuse first, then recycled content, then use virgin as a last resort. Make it a supplier requirement, not a preference.

Apply the same logic to end of life. Confirm the destination of the material before it’s procured, not after the event when disposal becomes the default. If you can’t confirm where it’s going, you can assume it’ll probably end up in the bin.

Cost and carbon go hand in hand

The materials problem is a financial priority as much as it is a sustainability one.

The weight of materials recorded in TRACE, that were used once and discarded totals 1,229 tonnes. Each of these materials required budget to produce and transport. That's money spent on materials used for, at most, a few days and disposed of at an additional cost of £292 per tonne.

For the total volume of single-use material in TRACE, the estimated disposal bill comes to almost half a million pounds*.

At a time when budgets are tight, this saving is hiding in plain sight.

The good news is that the fix points in the same direction for both sustainability and budget. A more circular approach to event materials reduces emissions and cost simultaneously.

In this area at least, what's better for the planet is better for the bottom line.

A note on the data

Hired materials are underrepresented in this dataset. Because hired stock carries near-zero emissions in TRACE, it is less frequently logged, meaning the true proportion of non-virgin material in use across the industry is likely higher than these figures suggest.

Even accounting for this, the volume of virgin material entering the events system remains a significant problem. The percentage is a useful signal, but it can shift due to measurement boundaries rather than any real change in behaviour. If hired materials are inconsistently logged, the virgin material ratio can look worse than the reality and won't capture some of the positive movement that's already happening in the industry.

That's why we also track the average volume of virgin material per event. Together, both metrics give a more complete picture, the ratio tells you the balance of your sourcing, and the volume tells you whether the total amount of new material being brought into the events industry is actually going down.

Different regional approaches

The materials challenge is global, but the response has to be local. Waste infrastructure, supplier availability, build and breakdown schedules, health and safety requirements, and the aesthetic expectations of different markets all shape what's actually possible on the ground. A decision that leads to lower emissions in London may not be viable in Las Vegas.

The data on this page reflects that variation. Sourcing patterns are broadly consistent across UK and US markets, the more revealing difference is in which materials are most commonly used. That tells a more nuanced story about supplier ecosystems, requirements, and where the biggest opportunities for change sit in each region.

CATEGORY	GLOBAL	EU	UK	US
Virgin material sourcing	84%	73%	91%	91%
Materials entering the waste stream	50%	61%	56%	33%
Most-used build material by weight	Timber	Timber	Timber	PVC blackout banner
Most emitting material	Carpet	Banner (Standard non PVC)	Carpet	PVC blackout banner
Most popular material (by frequency in TRACE)	Decal PVC printed vinyl	Timber (MDF)	Paper-based board	Decal PVC printed vinyl

The popularity of paper-based board in the UK is an encouraging signal. It demonstrates that lower-impact material alternatives aren't just theoretically available; they're being used at scale, within real production constraints and by mainstream event suppliers. **This is a proof of concept, and shifts the conversation from “can we?” to “will we?”.**

Carpet - the hot topic underfoot

78% of event carpet is only ever used once.

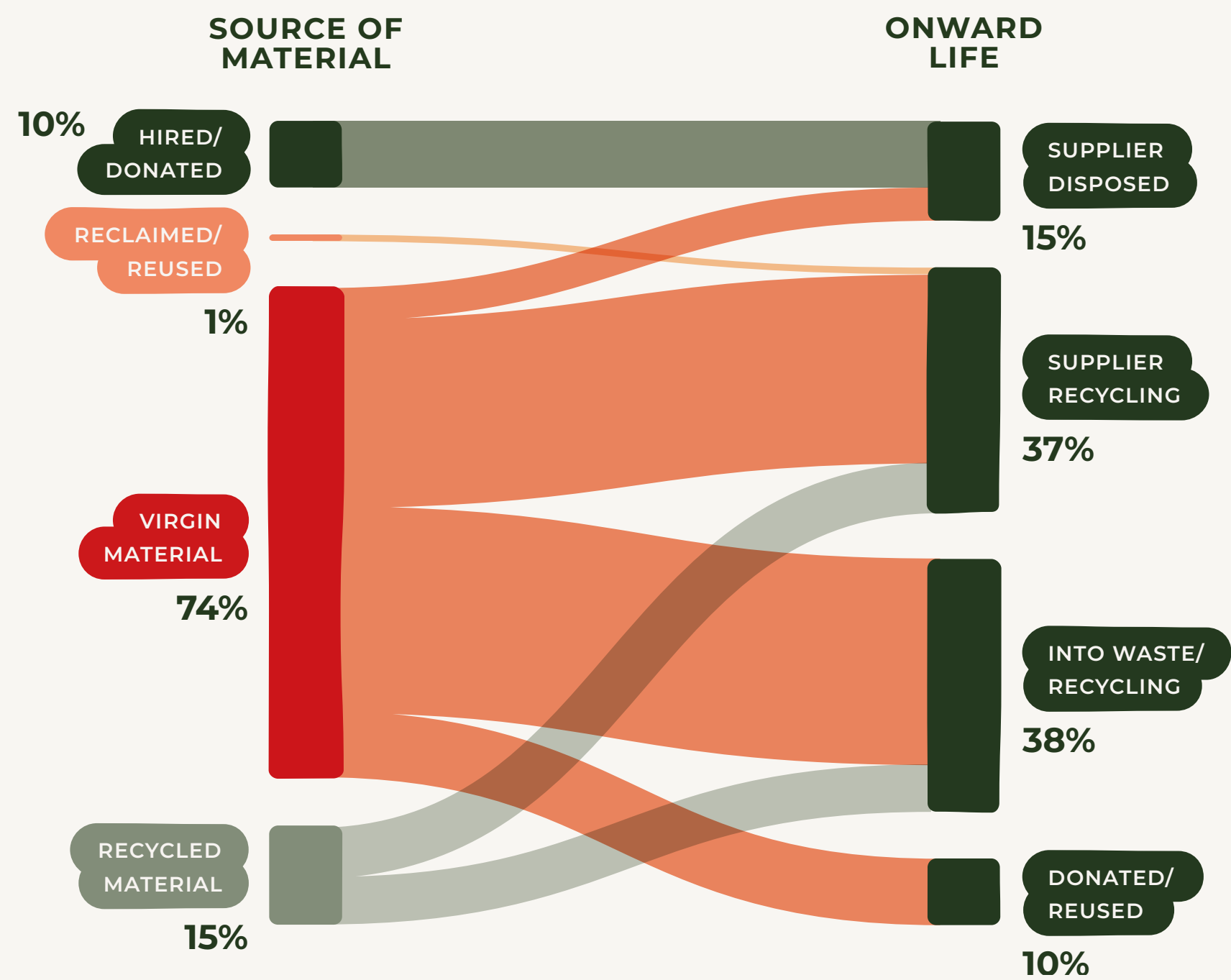
So, when we talk about materials, carpet deserves more than a mention in a list.

Carpet often plays a functional, practical role in an event, and that makes the argument for keeping it a strong one - or at least the case for alternatives might take some convincing.

It absorbs sound on floors that would otherwise be overwhelming, making conversations possible and focus easier to maintain. It plays roles in accessibility, health and safety, and the overall aesthetic, that feeling of quality and intention that a well-produced event communicates from the moment you arrive.

None of that is an argument for the status quo. It's an argument for finding more creative ways to deliver the same outcome. Given the use cases, it's not as simple as removing carpet and calling it done.

If we move beyond a binary yes or no to carpet, we open up more interesting territory. How can alternative, fully reusable temporary flooring solutions deliver an upgraded feel, one that meets or exceeds accessibility requirements



rather than simply matching what carpet has always provided? What does a thoughtfully redesigned floor space look like, where advanced acoustic engineering ensures conversations don't get lost, without relying on a material that was never meant to last beyond the event?

TIP

15% of carpet was made from recycled materials, but, recycled carpet only gets you half way. For a true move to a circular approach, onward life needs to be part of the conversation - and the goal should be a second life for the material, ideally one that keeps it doing the job it was made to do. Carpet that stays on a floor, under foot, is a better outcome than carpet that gets turned into something else.

Disposal and donation are last resorts. Where disposal can't be avoided, prioritise partners who can genuinely transform carpet, or donate only where there is a clear, confirmed need - not as a way to offload surplus!

TIP

Before choosing carpet at all, ask yourself: where can it be removed without sacrificing the experience? Not every surface needs it. Marginal reductions in a single event quickly become significant when realised consistently across a portfolio.

How do event materials score across five key dimensions?

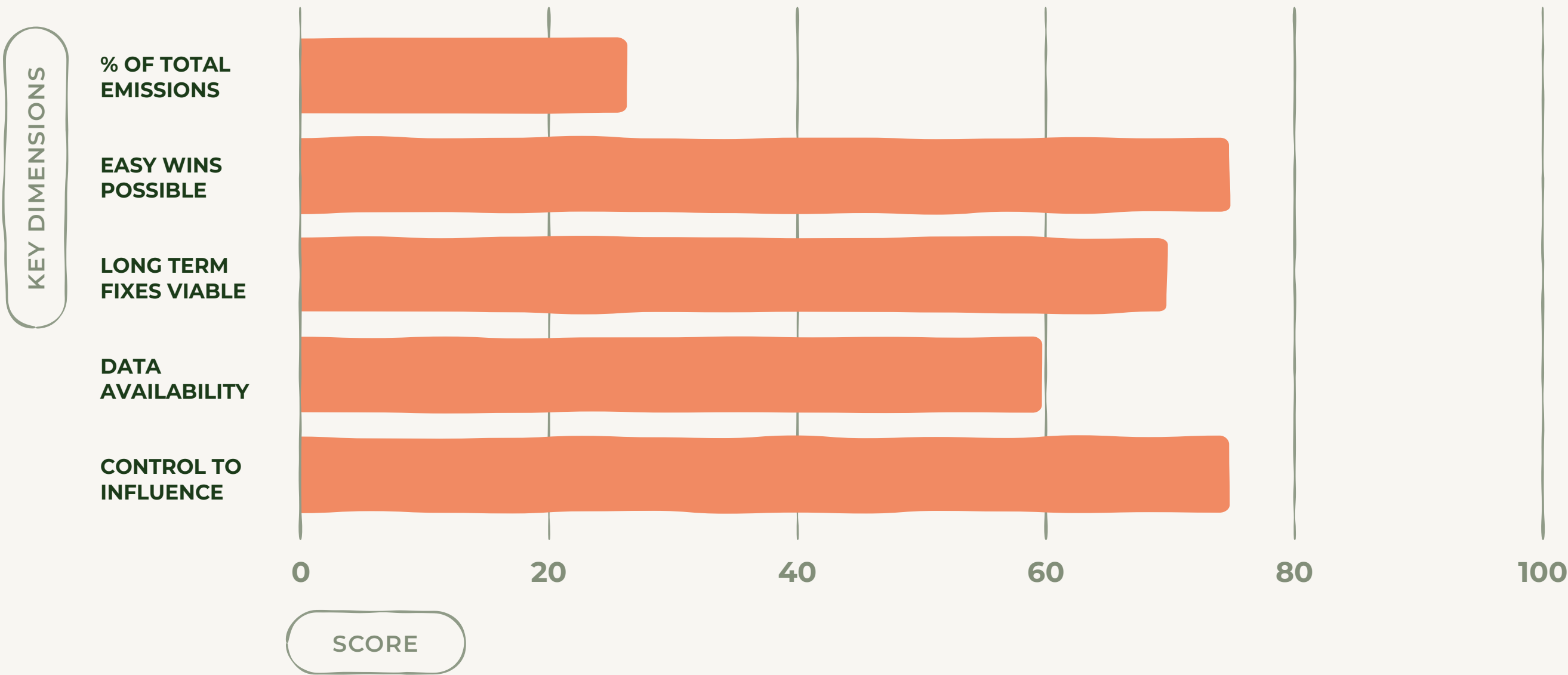
Materials show up as a high-priority area for several reasons.

First, the numbers: materials contribute approximately a third of emissions once audience travel is removed. Data availability sits at around 60%, meaning the findings are grounded in a reasonable evidence base.

The stronger case comes from the nature of the interventions available. Meaningful reductions in material emissions are achievable through single design decisions, changes that

don't require a fundamental transformation of how events are produced or how the industry operates. Longer-term, more structural improvements are also largely within the reach of individual businesses or achievable through collaboration, without depending on major infrastructure change.

Taken together: the emissions impact is significant, the interventions are viable, and the decisions sit within the control of an organiser, either directly or through the suppliers they choose to work with.



How to read this graph:

Each **TRACE** module is scored across five dimensions to indicate where action is most likely to deliver results.

% of total emissions	How significant is this category as a share of overall event footprint, with audience travel removed?
Easy wins possible*	Are there accessible, single-decision interventions that will meaningfully reduce emissions in this area?
Long-term fixes viable*	Can structural changes be made over time without requiring a fundamental transformation of how your event or business operate?
Data availability	What proportion of events have data for this category? A higher figure means greater confidence in the numbers.
Control to influence*	Visual indication of how much direct control you have over this category, versus how much you can influence but not determine

* as determined by the TRACE team via direct analysis of data, experience of the events industry and conversations with TRACE users.

We're looking at an industry level, but this way of thinking can help you prioritise within your own events too.

Industry discussion point

Having explored what materials are used, how they're sourced, and what happens to them at the end of an event, a broader question emerges, one without a definitive answer yet: does the infrastructure exist to support a shift towards greater material circularity?

Venues could be well placed to be part of this, and there's something in it for them too. They are already influential across multiple event planning decisions, location, energy use, waste management systems, in-house suppliers, and their reach into events runs deep. In the case of event carpet, venues have the single biggest opportunity for material intervention across the industry. A venue taking ownership over flooring and the management of its space, or working closely with organisers and production suppliers to coordinate shared flooring inventory could help break the single-use default in a way that individual organiser decisions alone cannot.

Acting as a facilitator, solutions could look like; storage between events, reuse across multiple productions, and working relationships with donation and repurposing partners could become part of what a venue offers, providing a service that supports reuse as standard.

It's not a radical idea. It's a natural extension of what already happens with furniture, AV equipment, and rigging. The question is whether flooring, and, more broadly, event materials get the same treatment.

A venue is more than an empty box. The venues that choose to lead the conversation and innovate here won't just be solving a problem, they'll have a commercial edge.

Use less. Save more.



Use less

The most sustainable material is the one that was never ordered. Before adding to your inventory, ask whether it's necessary, whether it can be hired, reused, or made with recycled content. Reduce the volume first. Then make what remains count. Every material you don't buy is budget freed up for something that matters more.



Plan better

Before anything is ordered, know where it's going afterwards and build that into the brief, not the debrief. Make sure your contractors know the plan from the outset; end-of-life shouldn't be a decision that happens under the time pressure of a late-night breakdown. Audit what leaves your events, track where it goes, and hold yourself and your suppliers accountable for the outcome.



Design smarter

Lower-impact alternatives exist for most standard event materials, and in many cases they perform as well as, or better than, the conventional options. Start with measuring the impact of your materials using TRACE, then use the isla materials library to find alternatives that are relevant to your events, your suppliers, and your market.



Measure with TRACE

TRACE was created by event professionals for event professionals to help measure and reduce your event carbon footprint and operational emissions. We understand how important it is that you have credible carbon insights you can act on with confidence, in our complex multi-stakeholder industry.

If you'd like to get started with event or business operations measurement, you can book a demo or email trace@weareisla.co.uk.

Book an event
measurement demo

Book a business
operations demo