uk sport
powering success
inspiring impact

2023 ICF Canoe Slalom World Championships

Event Impact Report - December 2023

Contents

UK Sport's Sustainability Strategy

UK Sport's Ten Year Strategic Plan sets out various ambitions, including No.3 to inspire positive change, where environmental sustainability plans sit.

UK Sport's Environmental Sustainability Strategy was launched at the end of March 2023.

Overall, UK Sport's vision is to ***"accelerate the progress of high-performance sport in addressing collective environmental impact,"*** and is based on three priorities:

1. Operations
2. Capability and Decision Making
3. Influence and Platform

It's a foundational plan that runs from 2023-2025 and includes the following actions:

- Ensure that every major event invested in has calculated its potential environmental impact and puts in place an action plan to reduce negative impacts and implement initiatives that have a net positive impact.
- Engage with venues, cities and regions during event bidding and hosting to incorporate environmental sustainability targets.

UK Sport's Measurement Objectives

UK Sport want to use TRACE to pilot measuring the impact of two events:

- Manchester 2023 Allianz Para Swimming World Championships
- 2023 ICF Canoe Slalom World Championships

These events are each slightly different therefore will enable a good pilot to give benchmarks for each type of event (indoor/outdoor and para/non-para) and help understand whether TRACE will work if rolled out amongst other events/sports in future.

UK Sport want to use TRACE to measure the final impact of both events and carry over key learnings and considerations for the continual improvement of sustainability performance in future.

isla.

isla is the UK's most trusted, independent industry body offering the event sector thought leadership, data driven insights and empowerment tools that define a successful pathway to Net Zero emissions for all industry stakeholders.

Founded by event professionals and industry leaders, isla's goal is to accelerate the event industry transition to a net zero future.

trace by isla.

TRACE is the definitive carbon measurement platform for sustainable events.

The TRACE platform helps you measure and minimise carbon at live, hybrid and digital events.

Sustainable events are more achievable with recommendations to shape decision making and planning stages.

Event overview

Event Name: 2023 ICF Canoe Slalom World Championships

Event Dates: 19th – 24th September 2023

Event Location: Waltham Cross, United Kingdom

Event Venue: Lee Valley White Water Centre

Event Details:

- 2023 ICF Canoe Slalom World Championships took place 19th – 24th September 2023 at Lee Valley White Water Centre in Waltham Cross.
- In addition to 6 days of competing, there are 14 days of training beforehand.
- 311 athletes (plus 200 members of Athlete Support Team) are competing to qualify for the Paris Olympic Games.
- There were 100 VIPs, 40 ICF, 300 Staff/Volunteers and 9,743 spectators in attendance at this event.

British Canoeing & Event Sustainability Strategy

- The event was delivered by British Canoeing on behalf of British Canoeing Events.
- British Canoeing has sustainability as a key cross-cutting theme as part of the overall organizational strategy
- In 2023, the British Canoeing Sustainability Strategy was launched which identified the work around the Canoe Slalom World Championships as an initial key action.
- The event developed its own sustainability strategy which looked to target three main areas:
    - Sustainable Foundations - Embedding sustainable practices across all aspects of the event
    - Minimising the Impact - Minimising the negative environmental impacts occurring as a result of the event
    - Positive Action - Ensuring positive changes occur as a result of the event

Lee Valley White Water Centre

- The venue for the 2023 ICF Canoe Slalom World Championships was Lee Valley White Water Centre in Waltham Cross. This is mostly an outdoor venue with some indoor elements.
- Lee Valley White Water Centre was purpose built in 2010; it is a London 2012 Olympic Games legacy venue. The site is owned by the Lee Valley Regional Park Authority and managed by GLL.
- The site includes a lake/course plus various spaces for other activities happening on site such as hospitality, concessions, Expo Fan Zone, Expo Family Fun Zone, training area and production offices/meeting spaces.
- The pump to make the water turbulent in the course uses a lot of energy.
- Due to the venue's location, a significant of people travelling to the venue drive as it is 20 mins walk from the train station.

LV Lee Valley
For nature, sport and discovery

Lee Valley Regional Park Authority

Event sustainability objectives and goals

Measure baseline

goal:

Measure the carbon and waste footprint of CSWC 2023, to create a baseline and to understand largest causes of impact.

action taken:

The CSWC team, key suppliers and a TRACE specialist worked together from May through until December 2023 to:

- identify the project measurement boundary
- identify suppliers to engage with to request data
- brief suppliers using TRACE virtual training sessions (for key suppliers) and TRACE templates/briefing emails
- bi-weekly check in calls to review progress and answer any questions that arose
- collate and input data into TRACE to measure final emissions
- develop this report with final calculations and largest causes of impact

Identify areas for improvement

goal:

Assess the carbon and waste footprint of CSWC 2023 as well as the overall measurement process, to identify areas of improvement for other UK Sport events, and future CSWC events.

action taken:

The CSWC team, key suppliers and a TRACE specialist worked together from May through until December 2023 to:

- use TRACE to see the impact of various decisions throughout the project process
- keep note of ways to improve processes and procedures
- develop this report post event to review our key learnings from the overall measurement process and what we would change to improve sustainability performance for the future

Measurement Boundary

Measurement boundary

Area	Detail
Venue Energy Use	Electricity meter readings for the site were provided by Lee Valley.
Temporary Energy Use	Litres of diesel was tracked for use in generators on site by MLS.
Production Build	Elements in this section such as materials for production of a mascot, uniforms, bibs, bags, pin badges and pens were tracked.
Graphics	Elements in this section such as materials for banners and signage were tracked.
Catering	Catering for staff, volunteers, spectator and additional meetings in the site were tracked.
Waste	General waste and mixed recycling data was provided by Lee Valley.
Production Transport	Contractor transport, couriers and overseas shipping/freight was tracked.
Staff, Athletes and Volunteers Travel & Accommodation	CSWC, Volunteers, Athletes, Media, Officials, ICF and Supplier staff travel data was collected and included in the Staff Travel section by CSWC team. However, not 100% of data was collected and some assumptions were made based on the data obtained. More information on those assumptions is included on the following slides. CSWC, Volunteers, Media, Officials, ICF and Supplier staff accommodation data was collected and included in the Staff Travel section by CSWC team. Athlete accommodation data was not collected.
Spectators Travel	Spectator travel data was collected through See Tickets data. However, not 100% of data was collected and some assumptions were made based on the data obtained. More information on those assumptions is included on the following slides. Spectator accommodation was not collected.

Summary Calculations

Overview of event in numbers

How did we do?

Total Attendees

9743
In Person

0
Virtual

Carbon Footprint

1142.33 tCO2e
Total carbon footprint

117.25 kgCO2e
Average carbon footprint per attendee

Waste Footprint

17.08 tonnes
Total Waste Footprint

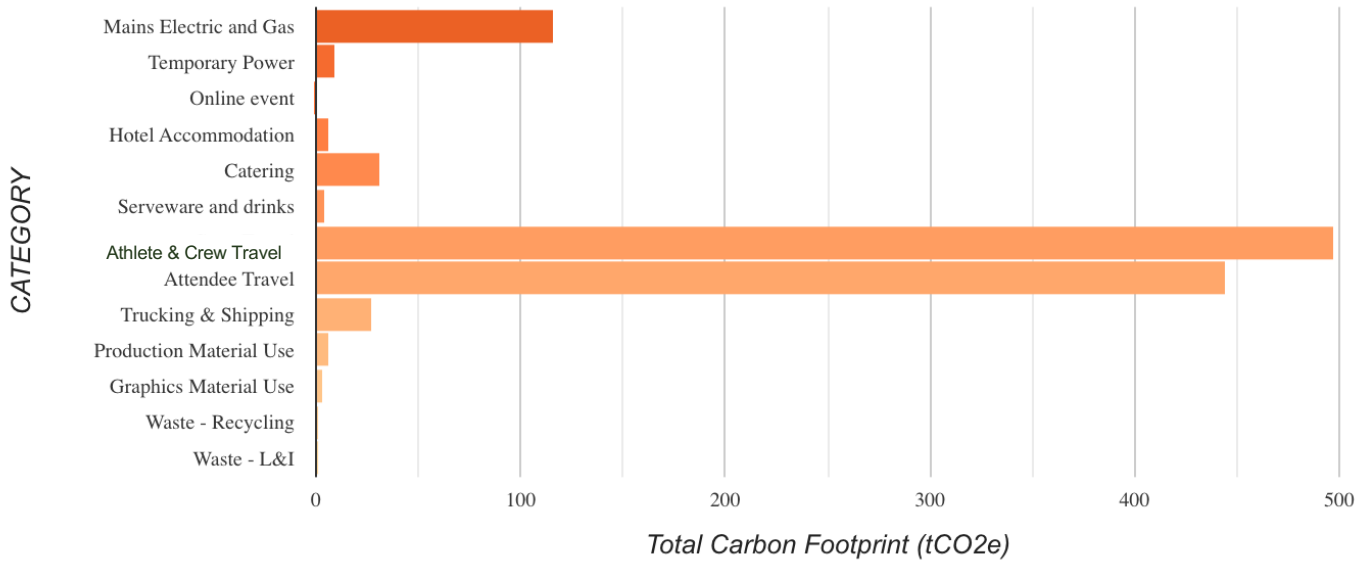
1.75 kg
Average waste per attendee

This is the equivalent of

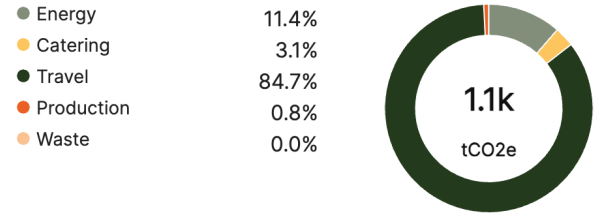
- CO2 equivalent from 571.2 cars on the road for one year
- The carbon sequestered by 5711.6 tree seedlings grown for 10 years

Overview of event in numbers

Emissions breakdown by category



Carbon Footprint by Category



Scope 1	Scope 2	Scope 3
7.00 tCO2e	87.12 tCO2e	1048.22 tCO2e

Overview of event in numbers

Mains electric & gas – 115.633 tCO2e

Temporary power – 8.587 tCO2e

Online event – NA

Hotel accommodation – 5.928 tCO2e

Catering – 30.864 tCO2e

Serve-ware & drinks – 4.425 tCO2e

Crew travel – 496.718 tCO2e

Attendee travel – 443.955 tCO2e

Trucking & Shipping – 27.234 tCO2e

Production & Material use – 5.721 tCO2e

Graphics Material use – 2.901 tCO2e

Waste recycling – 0.111 tCO2e

Waste landfill & incineration – 0.25 tCO2e

In more detail

Energy

How did we do?

It was anticipated that electricity usage would be fairly high for this event as we know that Lee Valley has 5 pumps (with 3 used at any given time) which move the water around the course. 130.15 tCO2e was emitted from energy use over the whole event, totalling 11.39% of the event's overall emissions.

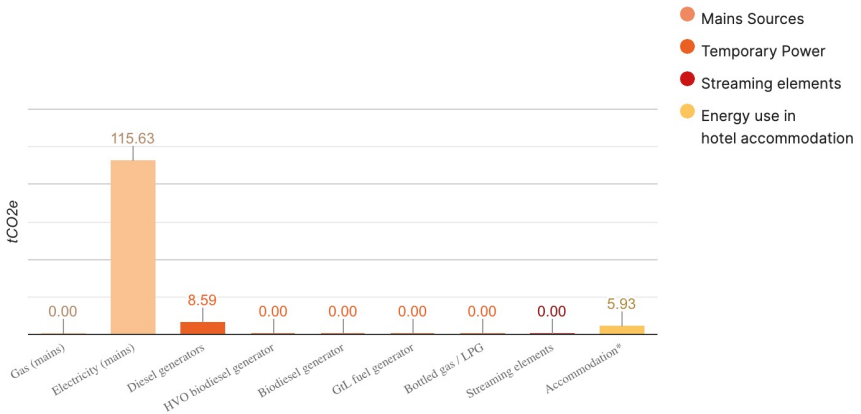
What does this mean?

Some basic segregation of energy usage was possible which highlighted that significant amounts of the energy came from pumping the water. The 3 pumps use 911KwH when in use so any efforts that can be made to reduce the overall usage will help to reduce emissions in future.

Generators were used on site for surplus power, requiring 2,539 litres of diesel producing 8.59 tCO2e. Switching to HVO fuel for these generators would have produced 0.797 tCO2e making a saving of 7.793 tCO2e.

Energy usage from staff and crew accommodation emitted 5.93 tCO2e. Of the 8 hotels used, 6 confirmed they used certified renewable energy.

Breakdown of Energy categories



Total Energy emissions

130.15 tCO2e

Contribution to overall emissions

11.39%

Energy emissions per attendee

13.36 kgCO2e

Waste

How did we do?

The total amount produced on site was 17.08 tonnes of waste; predominantly coming from general waste produced by your spectators on site (classed as ‘everything else’).

What does this mean?

Over 30% of waste was recycled or reused, demonstrating that suppliers were considering the waste hierarchy throughout project delivery and post event. Anything that couldn’t be repurposed was incinerated with only a very small amount into landfill.

The amount of food waste produced wasn’t tracked, however as recorded in the Sustainability Action Plan, some excess food (fruit and sandwiches) was donated to local food banks including the OK Foundation or distributed to staff.

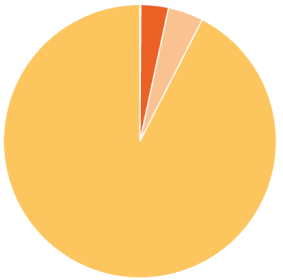
Compared to a recent report (The Temperature Check Report by isla) which looks at a cross section of data from 127 events, the average waste produced in the UK per attendee at an event is 2.14kg per person. CSWC waste per attendee was 1.75kg which is below the existing industry benchmark.

We only received basic waste data for this event, as the venue appointed a new waste management provider just before this event took place.

For more detail on how these graphs are calculated – see appendix graphic on ‘where does waste come from’.

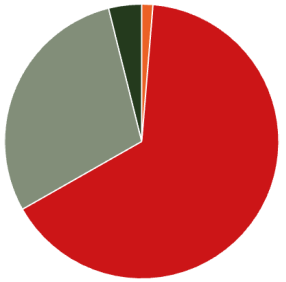
Where did waste come from? (by weight)

Built items	0.1%
Graphics	3.3%
Food waste	0.0%
Serveware and drinks	4.2%
Everything else	92.5%



Where did waste go? (by weight)

Landfill	1.3%
Incinerated	65.5%
Recycled	29.3%
AD/Compost	0.0%
Re-used	3.9%



Total waste	Waste per attendee	Total Waste emissions
17.08 tonnes	1.75 kg	0.36 tCO2e

Contribution to overall emissions	Waste emissions per attendee
0.0%	0.04 kgCO2e

Production: Build

How did we do?

Just 8.62 tCO2e was produced from production-built items, totalling 0.8% of the event's overall emissions.

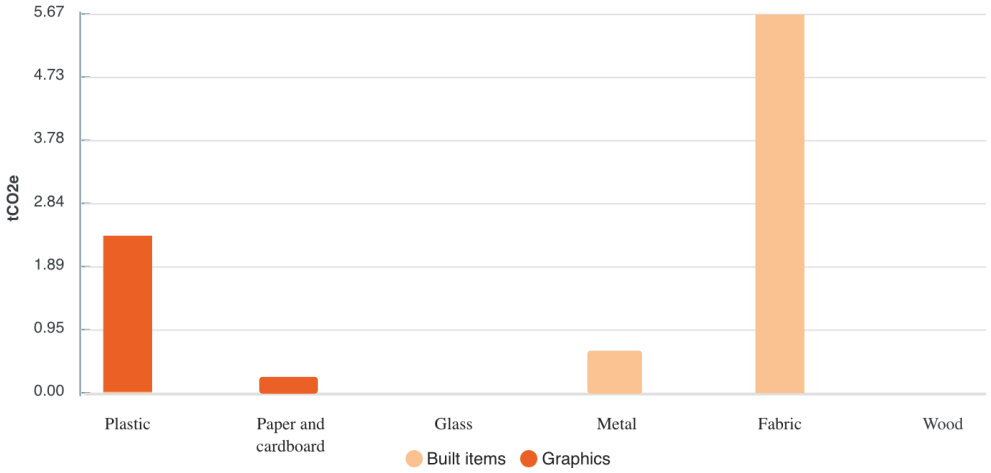
What does this mean?

The CSWC team prioritised using hired equipment (such as marquees, furniture, flags) and the CSWC have existing stock (such as flag poles etc) ensuring nothing was produced new for the production build.

The majority of production emissions came from fabric used for merchandise (bags, caps, hats, bibs, t shirts, jackets) and metal (for pin badges).

The results here are a great example of how you can keep emissions from production down by hiring over producing new. With emissions from new materials mostly for merchandise at just 0.88 kgCO2e per attendee.

Production materials emissions breakdown



Total Production emissions

8.62 tCO2e

Contribution to overall emissions

0.8%

Production emissions per attendee

0.88 kgCO2e

Production: Graphics

How did we do?

Graphics emissions totalled 2.901 tCO2e came mostly from materials like foamex and PVC used for backdrops, scrim, signage and paper used for the on site printers.

What does this mean?

Overall emissions from graphics are fairly low, a considered branding plan reduced requirements where possible, including reusing some branding from the 2019 World Cup!

However, all new graphics were made of virgin material and only 3.5% of anything new produced was recycled post event – with the majority being removed by suppliers for disposal.

TRACE doesn't track smaller items like cable ties etc, but we know more cable ties were used on site than usual due to adverse weather.

The amount of printing on site was reduced by utilising other means of communication (such as WhatsApp) during the live event however approx. 3,750 sheets (16.875 kg) of paper were used during the event. The number of printers on site was reduced to 2.

Material Type	Usage (tonnes)	Emissions (tCO2e)
Plastic	0.57	2.36
Paper and cardboard	0.02	0.03
Glass	0.00	0.00
Metal	0.10	0.57
Fabric	0.58	5.67
Wood	0.00	0.00
Total	1.27	8.62

Percentage of assets made from recycled materials

6.3%

Percentage of materials recycled post event

3.5%

Percentage of assets hired or made from reclaimed materials

0.0%

Percentage of materials reused, donated, repurposed

58.7%

Food & beverages

How did we do?

Catering was measured for staff , volunteers, spectators and additional meetings. In total there were 35.29 tCO2e produced from all catering, contributing to 3.1% of the overall event's emissions.

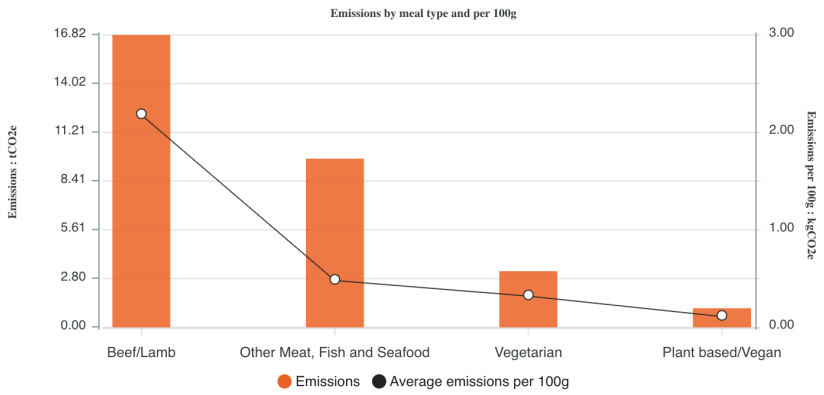
What does this mean?

Of this 35.29 tCO2e quite a lot of meat meals were served – with 16.82 tCO2e coming from beef and lamb. Emissions from food could be reduced by offering more vegetarian or vegan options.

A great deal of beer was served at this event (with over 6,461 servings!) contributing 2.7 tCO2e. 0.19 tCO2e came from serveware from card cups used for beer, water, soft drinks and hot drinks.

Food waste was reduced by excess food (fruit and sandwiches) donated to local food banks including the OK Foundation or was distributed to staff.

Emissions by meal type and per 100g



Food Type	Emissions (tCO2e)	Portions	Emissions per 100g (kgCO2e)
Beef/Lamb	16.82	2041	2.18
Other Meat, Fish and Seafood	9.71	6454	0.48
Vegetarian	3.23	4257	0.32
Plant based/Vegan	1.10	8075	0.11

Drink Choice	Emissions (tCO2e)	Quantity	Emissions per drink (kgCO2e)
Beer/Cider	2.6845	6461	0.42
Soft drinks	1.2626	9178	0.14
Water	0.0215	179	0.12
Tea/Coffee	0.2219	2830	0.08
Spirits	0.0071	26	0.27
Wine	0.0405	98	0.41

Total F&B emissions
35.29 tCO2e

Contribution to overall emissions
3.1%

F&B emissions per attendee
3.62 kgCO2e

Total Food emissions
30.86 tCO2e

Total Beverages emissions
4.24 tCO2e

Total Serveware emissions
0.19 tCO2e

Staff & Athlete Travel

How did we do?

In this section we include the measurement of staff, volunteers, officials and athlete's travel – which came to a total of 496.71 tCO2e - 51.3% of the travel and transport emissions and 43.5% of the overall project's emissions.

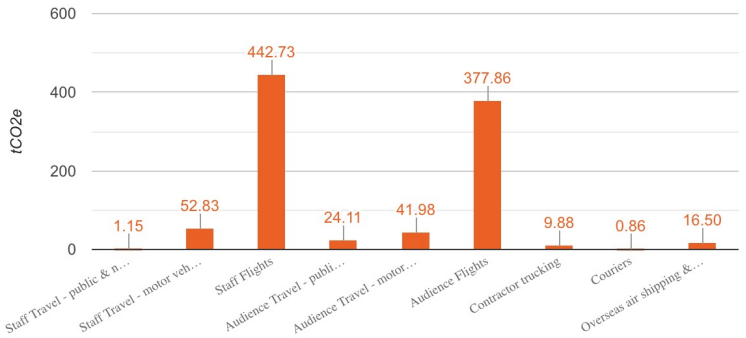
What does this mean?

The biggest area of impact was staff & athlete flights contributing to 45.74% of overall travel emissions. As expected quite a lot of people drove to the site which caused 52.83 tCO2e 5.45% of overall travel emissions.

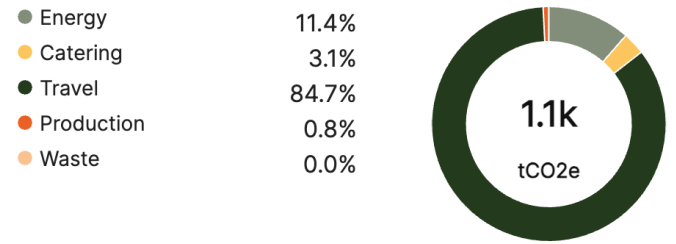
Some parts of the data in this area was difficult to extrapolate from ICF report provided so the following assumptions and methodologies were agreed:

- European athletes flew from their home country and back.
- Non-European athletes flew directly from the previous ICF event in Barcelona and then on to Paris for the next one.
- Teams then travelled by minibus from Heathrow to the venue.

Emissions by transport type



Carbon Footprint by Category



Travel and Transport emissions

967.91 tCO2e

Contribution to overall emissions

84.7%

Travel emissions per attendee

99.34 kgCO2e

Spectator (Audience) Travel

How did we do?

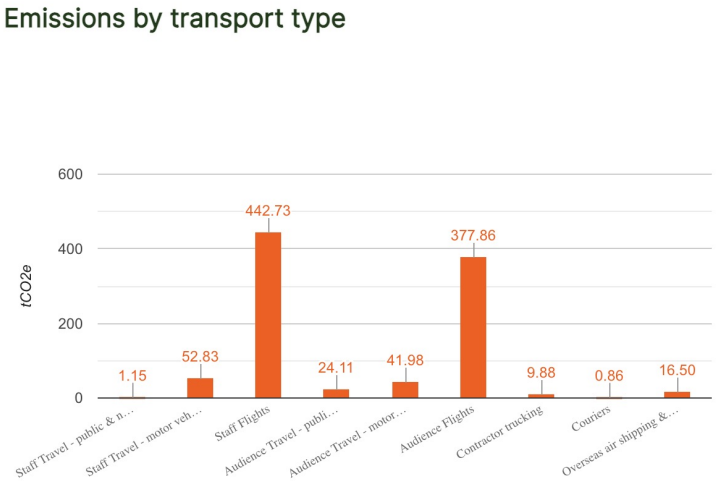
This section just looks at spectator travel, which was obtained through See Ticket data and some estimations. Spectator travel came to a total of 443.95 tCO2e – 45.86% of the travel and transport emissions and 38.86% of the overall project's emissions.

What does this mean?

The biggest area of impact here was spectator flights contributing to 39% of overall travel emissions. As expected quite a lot of people drove to the site which caused 41.98 tCO2e, 4.33% of overall travel emissions.

Data in this area was difficult to extrapolate from See Tickets registration reports so the following assumptions and methodologies were agreed:

- Ticket holders who purchased car park bookings with their tickets were assumed to have travelled together in the same car.
- Anyone living over 50 miles away, with multi-day tickets, stayed in the local area and travelled 10 miles each day.
- Anyone living under 50 miles away, returned home each day.
- Spectators who didn't purchase car parking, travelled by public transport (assumed National Rail).
- International purchasers from neighbouring countries drove if they purchased car parking.
- Other International purchasers flew from their home country to Heathrow and then used public transport, unless they purchased car parking.



Kit Transport

How did we do?

Kit transportation contributed 27.24 tCO2e for the entire project.

What does this mean?

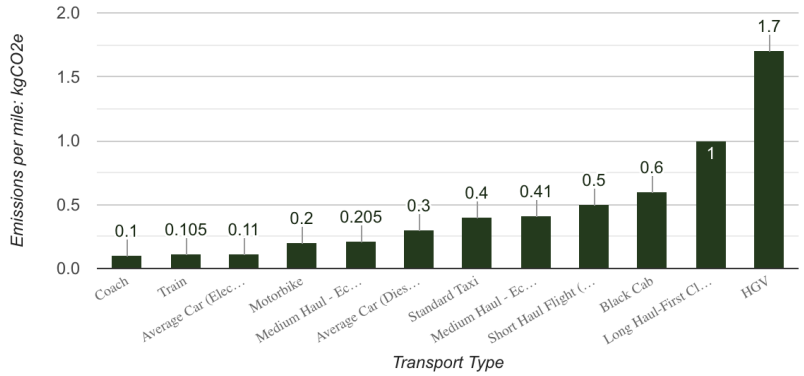
This included 16.50 tCO2e emitted from international freight with merchandise coming from Bejing or Islamabad by long haul freight, or HGV from Munich.

Producing items locally will reduce emissions in this area or transporting items by slower method of transport such as cargo ship.

A great deal of contractor transportation was done using diesel vans (9.88 tCO2e), this could be reduced by trying to encourage suppliers to use HVO trucks and vans.

Emissions per mile for different transport types

This graph shows the emissions of different transport choices to help when planning transport



Transport Type	Emissions (tCO2e)	Percentage of Transport Total	Journeys	Emissions per journey (kgCO2e)	Mileage	Emissions per mile (kgCO2e)
Staff Travel - public & non-emitting transport	1.15	0.12%	190	6.08	16742.38	0.07
Staff Travel - motor vehicles	52.83	5.46%	1719	30.74	163246.24	0.32
Staff Flights	442.73	45.74%	1395	317.37	1233175.40	0.36
Audience Travel - public & non-emitting transport	24.11	2.49%	8271	2.92	324238.74	0.07
Audience Travel - motor vehicles	41.98	4.34%	1625	25.84	124051.80	0.34
Audience Flights	377.86	39.04%	534	707.60	1052584.25	0.36
Contractor trucking	9.88	1.02%	164	60.23	11649.24	0.85
Couriers	0.86	0.09%	16	53.71	1854.80	0.46
Overseas air shipping & freight	16.50	1.70%	4	4124.42	14439.44	1.14

Overall potential reduction opportunities

Carbon emissions reductions

Here is a collated list of all of the reduction tips for each core pillar. We have estimated the potential carbon emissions saving if each tip is implemented to give you an idea of the total reduced footprint that may be possible for this event by making a few key changes.
However, these tips just focus on your biggest sources of emissions in each area, and many more reductions could be made. Check out proseed, for best practice guidance on how to reduce your carbon footprint across your events.

Area	Change	Reduction (tCO2e)	Reduction (%)
Energy	Switch mains electricity to a renewable energy tariff for a drastic reduction of carbon emissions.	115.633	10.12%
Energy	Use a mains supply instead of 50% of your generators to reduce your emissions to this amount. (An alternative way to reduce diesel consumption if mains power isn't available would be to conduct detailed power mapping of your requirements so that your power providers can optimise generators and use smaller generators or run them for shorter periods).	6.082	0.53%
Catering	Provide 100% plant based catering for staff and audience	28.029	2.45%
Travel and Transport	Your biggest cause of road transport emissions is staff travel, so you could aim to reduce this by a third by requiring staff to car share or use public transport, and booking more local crews	17.435	1.53%
Travel and Transport	Flying has a big carbon footprint. Aim to reduce emissions from staff flights by a third by doing virtual site visits and meetings during the planning phases, using more local crew, booking trains instead of flights or flying economy rather than business class.	146.101	12.79%
Production	Reduce new build elements by 25% by either reducing requirements or using more hired, reclaimed or reused items	1.43	0.13%
Overall reduction	If you do all of the above	314.711	27.55%

Additional sustainability wins!

- Communications were sent out to volunteers, spectators and suppliers encouraging them to make sustainable choices. These communications included suggestions such as not bringing single use plastics to site, bringing your own water bottle to refill and making sustainable travel choices where possible (i.e. public transport or car share etc).
- The 2023 ICF Canoe Slalom World Championships wove sustainability through the entire process of delivering this event, including the development of a thorough Sustainability Action Plan to outline commitments, actions and responsibilities amongst all stakeholders. This approach along with regular 'Sustainability Action Group' meetings ensured that everyone stayed on track and progress was clearly measured.
- During the 2023 ICF Canoe Slalom World Championships, the ICF Sustainability Forum was hosted on site, with representatives from the ICF and several nations attending the event. This enabled the team to share what sustainable practices they applied and to start discussions on the systematic changes needed to improve things in the future.
- The CSWC team hosted the UK Sport Observer Programme, where they presented their sustainability journey to events staff from a number of different sports across the UK.
- The CSWC team also hosted the Herts Sports & Physical Activity Partnership; Sustainable Sports Events Learns & Share, presenting the learnings to staff from a range of sporting organisations.

Review of Objectives

Objectives reviewed

Measure baseline

goal:

Measure the carbon and waste footprint of CSWC 2023, to create a baseline and to understand largest causes of impact.

outcome:

CSWC has been measured for carbon and waste impact

- Carbon emissions produced: **1,142.33 tCO2e**
- Waste produced: **17.08 tonnes**

Identify areas for improvement

goal:

Assess the carbon and waste footprint of CSWC 2023 as well as the overall measurement process, to identify areas of improvement for other UK Sport events, and future CSWC events

outcome:

See following slides for suggestions on ways to improve the measurement process, data quality, and accuracy of overall footprint.

Areas for improvement

Ownership

- Richard and Daniel led this measurement project in partnership with Chrissie from the TRACE team. Richard and Daniel developed and managed the event's Sustainability Action Plan and liaised with all suppliers to obtain or extrapolate data required for inputting into TRACE.
- This was a substantial amount of work for them to take on in addition to existing responsibilities during the event planning & data collection phases (post event data processing itself took over 30 hours), and on site especially when the team have to pivot to solve unexpected issues.
- In future, when UK Sport measure events it's recommended there is a dedicated 'Sustainability Focal' as part of the project team. This will need to be someone with oversight and leadership, and the bandwidth within the workforce to influence the procurement process and operational delivery, including on site during build live and derig to ensure sustainability is still high priority, that on site audits of sustainability initiatives are conducted and suppliers on site are engaged.

UK Sport Influence

- Sometimes it is difficult to gain buy in from stakeholders, and to get what we need to successfully complete a measurement project. It is recommended that UK Sport use their influence to encourage better practices and mandatory data provision for reporting.
- With UK Sport's influence this could ensure compliance and speed up much needed change for more sustainable events.
- It is also recommended that UK Sport use consistent tools, credible reporting factors and methodologies across the events they measure, in order to maintain consistency.

Areas for improvement

Travel Data

- Travel is often the highest contributor of emissions for large scale events of this nature, and often the area we have the least control. It is also difficult to collect travel data in the aligning format required to input into TRACE.
- Work through a clear and defined plan of how to obtain travel data through ticket purchasing partner like See Tickets. Ensure the registration form is capturing the right data needed for accurate measurement into TRACE and check the report format aligns with requirements or ask for changes to save time and resource extrapolating or transitioning data to a new format.
- Due to high numbers of spectators, making provision of basic travel data mandatory will be a critical part of accurate understanding of spectator travel details.

Supplier Engagement

- Starting the measurement process early in the project ensured that the project's overall sustainability objectives were engrained throughout. Suppliers were engaged from early stages ensuring they prioritised sustainable choices and knew what was expected of them from day one. Maintaining this approach will be key for future success.
- Allow ample time from the completion of the event to when the final report is required for the collation of data. The collection from suppliers often takes longer than anticipated.
- Work with suppliers throughout the data collection stages to ensure they're aware of their deadlines and responsibilities.

Areas for improvement

Energy Use

- We knew that energy usage for this event would be high, due to the water pumps at Lee Valley required for the sport.
- Requesting segregated meter readings from Lea Valley for each pump and more detailed usage from other parts of the venue will help us to understand where we may be able to apply reductions for the future.
- We also know that Lee Valley are possibly installing some solar panels in the future which will reduce emissions from energy use.

Depth of information

- Some assumptions were made throughout the data collation process such as those referenced previously within the staff and spectator travel section.
- Liaising with suppliers and internal teams (including See Tickets) to coordinate obtaining the most accurate data will ensure final calculations are as realistic as they can be.
- Also, look to obtain more detailed segregated waste data would be beneficial in future – i.e. general, glass, plastic, wood, metal, food etc.

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Appendix

TRACE Carbon Factor Sources

Area measured	Factor source
Venue energy usage	TRACE uses UN IFI (United Nations International Financial Institutions) harmonised grid factors.
Temporary energy usage	TRACE uses DBEIS (Department of Business, Energy and Industrial Strategy) factors which are globally relevant
Production materials	Uses ICE (Institution of Civil Engineers Material) factors, emissions would be the same internationally, so are globally relevant
Graphics	Uses ICE (Institution of Civil Engineers Material) factors, emissions would be the same internationally, so are globally relevant
Food & Drinks	TRACE uses a standardised approach to food and drink based on average portion weight (food) and serving size (ml). Factors are calculated using an average of factors from C-Level, Avieco, Syntiro Associates, Olympic Organising Committee and We are Albert, so are globally relevant.
Waste	TRACE uses DBEIS (Department of Business, Energy and Industrial Strategy) factors, so are globally relevant for incineration / landfill.
Kit transportation	TRACE uses DBEIS (Department of Business, Energy and Industrial Strategy) factors which are globally relevant. WTT (well to tank) factors are used which consider the entire lifecycle of a fuel, from extraction and production to distribution, and are used to estimate the carbon emissions associated with different fuel types.
Ground transport	TRACE uses DBEIS (Department of Business, Energy and Industrial Strategy) factors which are globally relevant. WTT (well to tank) factors are used which consider the entire lifecycle of a fuel, from extraction and production to distribution, and are used to estimate the carbon emissions associated with different fuel types.
Flights	TRACE uses DBEIS (Department of Business, Energy and Industrial Strategy) for short, medium and long-haul flight factors for different cabin classes which are globally relevant
Accommodation	Uses factors from DBEIS (Department of Business, Energy and Industrial Strategy)
Online & Hybrid	Uses IEA (International Energy Agency) methodology

Waste – where does it come from?