UNIVERSITY OF LIVERPOOL

SUSTAINABLE TRAVEL GUIDANCE

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INTRODUCTION

This guidance has been developed in response to feedback gathered in the 2023 Staff Travel Survey. Its aim is to provide University of Liverpool staff with information and tools to help them reduce the impact of their business travel activities (including transport and hotel stays) on the University's scope 3 carbon emissions, supporting our aim to achieve net zero by 2035.

This guidance should be used alongside the University's Travel and Expenses Policy.

Commuter travel is addressed separately, please visit the sustainable transport **webpages** for further information.

WHY DO BUSINESS TRAVEL EMISSIONS MATTER?

The University's **Climate Plan**, which is a key supporting document to the **Sustainability Strategy**, sets out our commitments for addressing the climate crisis and outlines priorities for reaching net zero carbon for scope 1, 2 and 3 emissions.

Scope 1 and 2 carbon comes from energy we generate on site, fuel used in fleet vehicles and electricity purchased from the grid. Scope 3 carbon emissions are more difficult for us to control as they are associated with our supply chain and behaviours. Business travel is measured and reported under our scope 3 emissions.

We have adopted the **EAUC Standardised Carbon Emissions Framework** to allow us to accurately track and report on our carbon emissions. This data will be reported to the University's Sustainability Committee annually and will also be published in the University's annual **financial statements** as part of our commitment to transparency in sustainability reporting.

Externally, the University must report its scope 1, 2 and 3 emissions to the Higher Education Statistics Agency (HESA) in the annual Estates Management Return (EMR). Data extracted from the EMR is used by several league table providers to assess our environmental performance.

Funder Expectations

Business travel is often required for those working in academia, but it contributes significantly to our scope 3 carbon emissions. This has been acknowledged in recent policy updates from funders:

To reduce the emissions from travel funded by **Wellcome**, researchers should follow the guidance set out in the Wellcome Trust **Environmental Sustainability Funding Policy.** They state that researchers should:

- Minimise their travel and that of their staff, collaborators and all grant participants (for example, clinical research participants, focus group attendees, advisory boards etc) when designing and undertaking their project.
- Use alternatives (such as video conferencing, hybrid meetings and attending conferences virtually) where possible.
- Leverage existing local skills for fieldwork or if necessary, upskill others who are already located in the field rather than to travel to site themselves.
- Choose modes and class of transport that have a lower carbon impact where travel is essential (this includes taking the train instead of flying and travelling economy class when flying is unavoidable)
- Offset the remaining carbon emissions of all journeys or use an alternative to offsetting where their organisation has received Wellcome's approval for this. While offsetting is not a long-term solution to emissions Wellcome accepts its use as a way of mitigating remaining travel emissions once all other efforts to reduce them have been taken.

The **Laboratory Efficiency Assessment Framework** (LEAF) also has criteria [G35] linked to travel:

"The lab has implemented at least one action to reduce travel and adopted low-carbon travel policies where possible".

Set out in their **Policy on Environmental Sustainability in Research**, **Cancer Research UK** expects research teams to:

*"undertake only essential travel for research activities and if a virtual/digital alternative for the purpose of the travel is not available. Costs associated with travel for research collaboration purposes directly related to the activity funded on the grant are eligible to be included in a grant application as per their **Costs Guidance**. Where travel is necessary, the decision on the form of travel should consider options with a lower environmental impact, primarily through lower emissions, even if this comes at a higher price".*

The **Concordat for Environmental Sustainability of Research and Innovation Practice** – to which the University of Liverpool become a signatory in April 2024 – includes a commitment to reduce emissions from business and academic travel:

"For R&I to have global reach and benefit, we recognise that we must address carbon emissions associated with travel, and will promote 'climate conscious' travel in our R&I endeavours. Where travel is deemed essential in the context of the initiative, we will actively seek to travel less frequently, consider hybrid options for those travelling from further afield and prioritise to accommodate low carbon modes of travel (while also ensuring inclusivity and being mindful of the needs of attendees)".

HOW CAN I MAKE A DIFFERENCE?

Flights

Flights make a substantial impact on the University's carbon footprint. To support our ambitions to reduce carbon associated with business travel, staff should follow the guidance set out in the University's Travel and Expenses Policy which includes:

Consider if you really need to travel

As a starting point it's worth considering what you are hoping to gain by travelling in the first place and whether your objectives could be realised in another way – for instance:

- Could you combine efforts so that only one or two people go from a team, rather than everyone?
- Would it impact on your objectives if you were to attend remotely? If so, how?
- What would happen if you didn't attend?
- What could you do in the time that would be saved by not travelling?
- Is there an alternative online event which would provide some of the same benefits?
- Is there an alternative event which is closer to you which might provide some of the same benefits?

Make alternative arrangements

Thanks to developments in technology there are now more alternative options at our disposal than ever before; so before you plan a trip, we are asking you to consider if you can still meet your aims virtually. For instance, whilst in person meetings still hold a high value for rapport building and networking, once an initial connection has been made those relationships might often be maintained using online options – allowing you to travel less frequently. This might be particularly true if you are already well established in your field and have a network of colleagues and peers in place – whereas an early career researcher may need to travel more initially whilst they build up their network. We understand that the considerations for each person and each trip will vary but we hope that the resources in these pages will enable you to make an informed decision about if, when and how you travel.

Did you know?

A study by UCL found that for every tonne of carbon dioxide one person emits, three square metres of Arctic summer sea ice disappear. This means that by taking a transatlantic flight, one passenger is responsible for the loss of at least six square meters of ice.

Instead of travelling you might choose to:

- Record a video in advance
- Deliver a presentation remotely
- Make a conference call
- Attend via webinar or live stream
- Contact colleagues remotely

Teams and Canvas are available alternatives - if you need any technical support or information, then the **IT services team** can help.

Did you know?

The emissions created by a return flight from Manchester to Beijing are over 9 times the average annual carbon footprint of a person living in Ethiopia (560kg CO2 e)*

*details correct using www.atmosfair.de/en/offset/flight/ as of 05/04/2023

Optimise your travel plans

Even if some travel is necessary, you can still reduce your emissions as well as save time and money by decreasing the number of trips you take. For example, you might:

- Avoid multiple separate trips to the same area by combining them into a single, longer trip
- Maximise your outputs by increasing the business activities you take in one trip
- Ask conference organisers to provide virtual options or allow increased expenses to cover rail and accommodation costs
- Attend international conferences biennially instead of annually

Make all bookings through the University approved travel provider, Clarity Travel

All flights must book through **Clarity Travel** so that we can accurately record our business travel carbon emissions. Using Clarity to book your travel supports the University to achieve its ambitious net zero carbon targets allowing us to measure and monitor CO_2 emissions related to business travel activities and understand business travel across the University.

The travel portal is accessible via 'Tools & Services' on the **staff intranet** ('Book travel'). Detailed guidance on how to make a booking, alongside a pre-

Did you know?

1% of the world's wealthiest population is responsible for half of all aviation emissions*

*details correct using www.atmosfair.de/en/offset/flight/ as of 05/04/2023

recorded training session delivered earlier this semester, is available on the **Procurement intranet.** If you have any questions or feedback regarding the travel portal, please email **travelenq@liverpool.ac.uk.**

No domestic flights / no flights where travel by Eurostar is possible

The Carbon footprint of travel is measured in grams of carbon dioxide-equivalents per passenger kilometre. This includes the impact of increased warming from aviation emissions at altitude.

As you can see in Figure 1 – domestic flights produce the highest CO_2 emissions **per passenger kilometre –** that's because the largest concentrated amount of emissions occur at take-off and landing regardless of the duration of the flight so a shorter flight means higher emissions per km travelled.

Did you know?

80% of the world's population have never flown at all*

*details correct using www.atmosfair.de/en/offset/flight/ as of 05/04/2023

Case Study

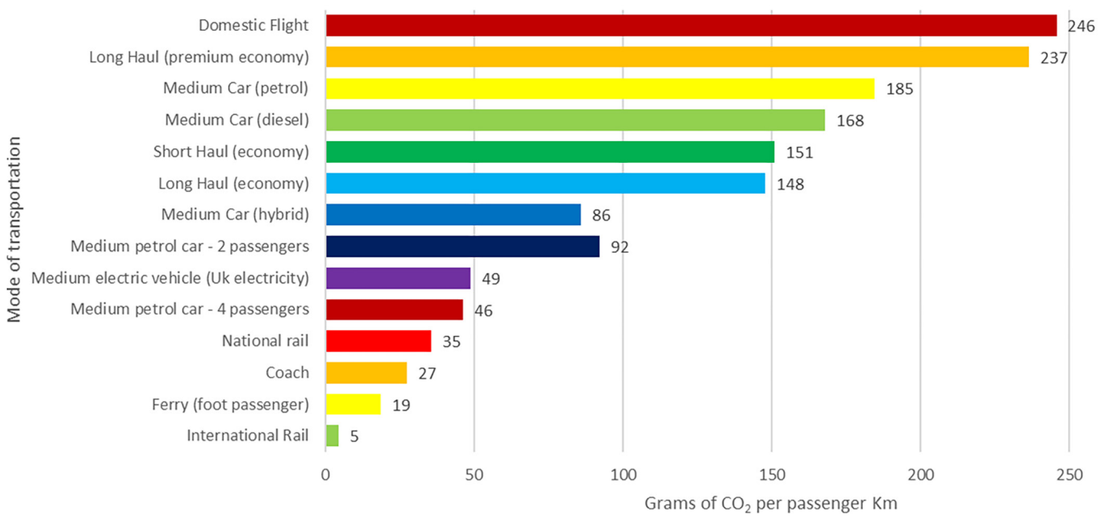
Professor Jo Meehan, Director of the Centre for Sustainable Business in the University of Liverpool Management School

"Academic conferences can be the lifeblood for research communities and provide opportunities to learn, engage, share, debate, support, and collaborate, often in new and inspiring locations. So surely, we would want to go to more of these? In thinking about my own carbon footprint, I have grappled with the value of taking part in international conferences versus the environmental damage of extensive travel that these usually demand. In conversations with other academics, we inevitably find ourselves talking about how busy we all are and the pressures to publish high quality research. The annual conference cycle can force us into artificial timeframes to deliver under-cooked work and as evidence for this I have a growing folder of conference papers that I never got round to writing up into a journal submission or gathering the extra data needed.

I began to rethink my relationship with conferences and how I might embrace 'slow science' – giving myself time to sit with my data, reflect on it, be curious about its assumptions and insights, and to provide room for dialogue with those who it may impact. And so, in the spirit of slow science, I have pledged to only attend an international conference, in person, every other year, giving breathing space to develop more careful, high-quality research. Slowing down does not mean I am not collaborating or not being outward facing; in fact, it is the opposite. It encourages me to more consciously reach out to colleagues and collaborators to share learning and engage with different perspectives, and to be careful with our work, making research much more of the international team sport it is supposed to be."

Figure 1

Source data: UK Government Greenhouse gas reporting: conversion factors 2022



Did you know?

Those who do not fly are also disproportionately affected by the negative effects of climate change.*

*using **www.atmosfair.de/en/offset/flight/** as of 05/04/2023

From January 2025 flights must not be used to travel domestically or to destinations served by Eurostar, unless travelling by train would prevent attending an essential event or meeting due to EDI considerations.

Business travel accounts for approximately 6500 tonnes CO2 per annum, with flights being a significant contributor to our scope 3 emissions footprint. The decision to ban domestic flights will therefore support targeted and active reduction of our scope 3 business travel emissions.

No business class for flights under 9 hours

Business class flights should only be booked for flights lasting nine or more hours in the air, or where there is strong business reason for travelling non-standard class (Premium Economy or Business if Premium Economy does not exist), and prior approval is obtained as set in policy.

As shown in Figure 2, flying economy has the lowest emissions per passenger of all classes, saving up to 443 kg CO2 per passenger km (long haul economy compared with first class); that's because the seats in first class sections are bigger, meaning less people can be flown around for approximately the same amount of fuel.

Take direct flights

it might seem obvious but changing flights can impact on your carbon footprint - multiple take-off and landing manoeuvres and longer distances increase emissions – so choosing non-stop, direct flights is always preferable.

Fly hand luggage only

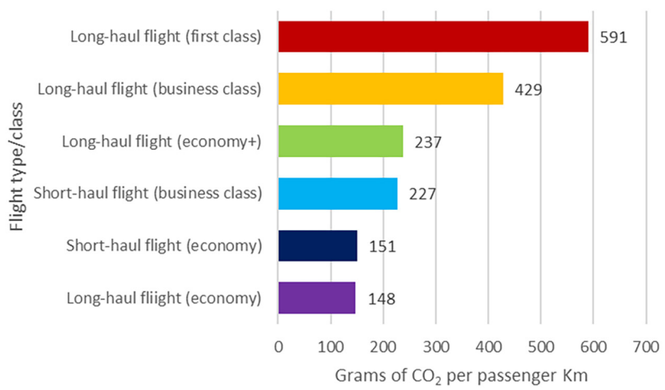
Another small change you can make is to fly with hand luggage only – by travelling with hand luggage only you are likely to pack lighter (meaning less fuel is needed by the plane) but you are also avoiding adding to the carbon created by the conveyor belt, luggage car and carousel for checked bags. It might not seem like a lot but given that millions of people travel every day these small changes can add up if we all do our bit.

Take your own reusable supplies

In addition to CO_2 emissions, flying can also generate additional waste via single use plastics – that's why it's worth being mindful about accepting any complimentary items given out on flights such as eye masks, earplugs, and water bottles and to consider bringing your own items with you, as required, instead.

Figure 2

Source data: UK Government Greenhouse gas reporting: conversion factors 2022



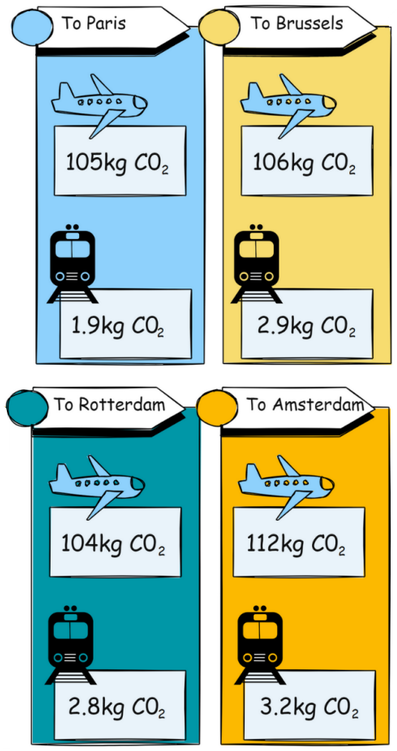
Rail

From an emissions perspective, rail is one of the best alternatives – the CO2 grams per passenger kilometre being emitted are significantly lower than those produced by air travel (about 86% less emissions for national travel and around 97% less when travelling with internationally).

Because of the huge carbon savings that can be made here we are asking you to strongly consider using high speed rail options and sleeper trains for both domestic and European travel.

The infographic below gives some examples of the carbon savings which could be made by travelling via international rail (based on **UK Government Greenhouse gas reporting conversion factors, 2022**):

Flying vs International Rail (one way)



Based on the figures above a round trip from London to Paris could save the atmosphere from over 206 kg of carbon (that's about the weight of a sea-lion)*.

It's important that you book through **Clarity Travel** so that we can accurately

*source: **www.weightofstuff.com**

Case Study

Professor Andy Jones from the Faculty of Health and Life Sciences

Professor Jones made the decision to make the return trip from Wigan to Montpellier via rail rather than flying, saving approximately 328 kg CO_2* in the process - that's about the same weight as a grizzly bear. We asked him a few questions about his experience:

Andy, what was the rationale for your decision?

My rationale was entirely based on trying to save CO_2. In our family life, we barely fly, since we know the importance of climate change, so it seems wrong then if I fly around the world for work. I am asked to attend/present at meetings almost every month, and I want to fly as little as possible, which means I have to disappoint a lot of people who expect me to come their events. I felt there was an opportunity to get to Montpellier for a workshop via rail, so I decided to give it a go.

How long did your journey take?

It took about 13 hours door-to-door.

What resources did you use to research your trip?

I asked for advice on Twitter, and researched a bit on the web, including the **Man in seat 61.**

What was the approximate cost differential?

I didn't cost up flights, but the rail option was pretty expensive (around £400). Fortunately, we had a lot of unspent funds on research grants, so we were not limited by this factor, but I expect this could be an issue for some people.

What was your journey like?

The experience overall was mixed. Several trains ran late, with one missed connection and two connections made with only minutes to spare (somewhat stressful)! I also didn't realise that Eurostar terminals are like airports and need 90 minutes to get through security and passport control in a worst case. At that time though, airports were also reported to be hugely chaotic so I doubt that air travel would have been any better.

I think the University should strongly encourage all staff to consider and discuss how they can take steps to reduce their carbon footprint.

Did you learn anything useful which you'd like to pass on?

I missed a connection in France due to late running Eurostar and the French rail network gave me a new ticket (and an upgraded seat) at no extra cost. In the UK though, it is more complicated. If you have a regular Advance single ticket (say from Euston back to the NW), you may not be able to take a later train. There is a different type of ticket you need to book called a CIV which can be booked through Clarity travel.

Any final thoughts?

Overall, I would encourage people to give it a try, and just treat the travel as a workday, so time is not "wasted". Usually trains have power sockets and with 4 or 5G, so it is possible to do most things as in an office.

*estimates of one way travel were made: 1180km flight distance, 283 kms of UK national railway and 928 kms international railways, based on **www.airmilescalculator.com** and **www.thetrainline.com** respectively. Calculations made using **UK Government Greenhouse gas reporting: conversion factors 2022.**

track emissions – however if you are considering making a European trip via rail there are several useful sites which can help you with your planning:

- **www.seat61.com**
- **www.raileurope.com**
- **www.thetrainline.com**
- **www.loco2.com**
- **EcoPassenger**

Car Travel

A single person travelling in a petrol-powered car would produce more CO2 than if they were travelling by air, but it's worth considering how this alters if 2 or more people are travelling.

As an example, 2 people choosing to travel in a petrol car from Liverpool to Paris, instead of flying, could save around 34 kg CO2, which is roughly equivalent to the weight of a giant otter.*

Of course, the fuel type of cars plays a part here too – our travel calculator can help you to understand the different impacts associated with travelling via petrol, diesel, hybrid or electric cars.

*estimates of 611 km flight distances and 815 km driving and used based on information from **www.airmilescalculator.com** and **www.distancefrom.com** respectively. Calculations made using **UK Government Greenhouse gas reporting: conversion factors 2022.**

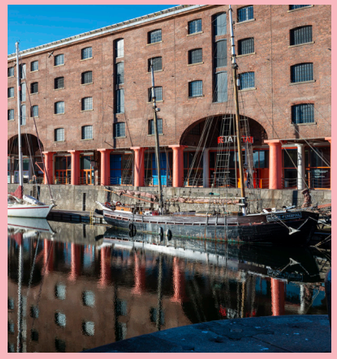
Coach

Travelling by coach can also be a great carbon saving alternative option for many domestic and European journeys; based on Figure 1 choosing to travel from Liverpool to London via coach rather than flying could save 65 kg of CO_2* – that's equivalent to about the weight of a bushbuck antelope.

Combining travel modes

Sometimes combining travel modes can also help you save carbon – for instance, if you are planning to drive somewhere (and travelling as a single person) you could instead take a train for most of the way to your destination and then book a hire car for the final leg of your journey – that would minimise the distance you travelled using a higher emissions vehicle. How you balance the cost, time and carbon emissions of your journey will vary depending on a number of factors, but we would encourage you to think carefully about the options, because you might be able to make a bigger carbon saving than you think, by making a few small changes.

*estimates of 304 km flight distances and 356 km driving and used based on information from **www.airmilescalculator.com** and **www.distancefrom.com** respectively. Calculations made using **UK Government Greenhouse gas reporting: conversion factors 2022.**



Sustainable Hotels

Another way you could minimise the carbon impact of your trip would be to select a hotel with a demonstrable commitment to sustainability; according to **www.greenvacations.com** both the Hilton and Marriott hotel chains are good choices.

They report that 94% of Hilton's energy is from renewable sources and that the chain has several recycling initiatives, including the donation of uneaten food to local food banks. Meanwhile many Marriott Hotels feature green roofs, (which reduce heating and cooling costs and contribute to making more oxygen in urban environment) and a select few even grow their own produce. Both these chains are available to book via the **Clarity portal**.

Another way to reduce the carbon impact of your trip is to choose a hotel which is close to your destination which could minimise the amount of car travel you need to make during your stay. You can do this by using the filter "closest to location" when selecting your hotel via the **Clarity Portal**.

TOOLS AND SUPPORT

Travel decision tree

If you are still not sure whether you should travel, our **decision tree** may help.

Calculating the carbon impact of your travel plans

To help you understand the impact of your mode of transportation we've designed a **calculator** so that you can see approximately how much carbon your trip will produce.

Carbon offsetting

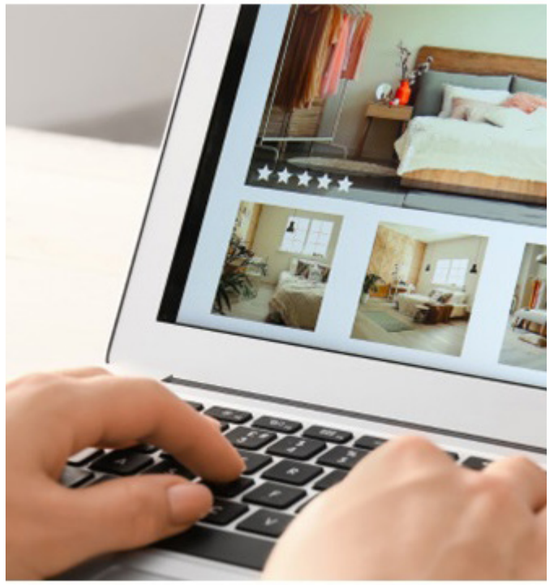
Offsetting can be expensive and is rarely as straightforward as it appears; it is vitally important that any schemes do not negatively affect local communities and indigenous people. There are also several other pitfalls to avoid including, double counting and carbon leakage making measuring impacts difficult; you can read more about the issues around offsetting in **UK Universities Climate Network: Carbon Offsetting for UK Higher and Further Education.**

The University's policy on offsetting for travel booked using university funds is therefore simple: offsetting should be avoided unless it is approved by an external funder. For guidance regarding offsetting of travel and hotel stays using external research funding, please email **sustainability@liverpool.ac.uk.**

Booking travel

You must book all staff travel via the Clarity Travel portal so that we can accurately track our business emissions and work towards achieving net zero. The travel portal is accessible via 'Tools and Services' on the staff intranet (**book travel**).

Student group travel must be booked using the University's appointed Travel Management Company, Studylink Tours. Student's are increasingly concerned about the impact of their travel and where they have concerns these should be considered by the member of staff making the booking. Information on how to book travel using Studylink Tours can also be found on the **intranet.**



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