

This policy was revised following university-wide consultation in summer 2023 and signed off by the Sustainability Strategy Committee in October 2023. The revised policy was approved by University Management Board in November 2023.

Written by:

Rhea Samra (Grantham Institute), Harriet Wallace (Sustainability Strategy Director),
Dr Drew Pearce (Department of Physics) and Judge Singh (Procurement).

With thanks to:

Dr Jem Woods (Centre for Environmental Policy), Dr Salvador Acha (Chemical Engineering),
Ahlam Khamliche (School of Public Health and Trade Union representative), Michael Haig
(Communications), Will Hollyer (Campus Services), Professor Frank Kelly (School of Public
Health), Dr Marc Stettler, (Civil and Environmental Engineering), Professor Tim Green (Academic
Lead for Sustainability) and Dr Audrey de Nazelle (Centre for Environmental Policy).



Imperial's travel impact and reduction goals

In-person research and teaching, as well as national and international collaboration, are key to our work at Imperial; and we know that travel is an important element of university life. However, we also know that travel is a large contributor to Imperial's impact on the planet, due to the high emission intensity of travel, particularly through aviation.

In 2019, travel at Imperial produced roughly 38,500 tonnes of carbon dioxide equivalent emissions (tCO₂e): 16% of our total carbon footprint. Of that, business travel emissions were 19,000 tCO₂e, with 94% produced by flights. There was a further estimated 19,400 tCO₂e of emissions from student flights in 2019–20¹. This is about the same as the average emissions produced from heating 17,500 homes for a year, or the yearly average emissions produced from 23,000 cars on the road.

In our [Sustainability Strategy 2021–2026](#), Imperial committed to develop a Sustainable Travel Policy with a progress measure of a 25% reduction in carbon emissions (tCO₂e per person per year) from air travel by 2026 against the baseline year 2017–18. Imperial will review this target and policy in the future, keeping in mind that a net zero approach would likely mean an escalated focus on reducing emissions as far as possible and only using offsets or carbon removals for residual emissions.

Policy purpose and approach

This policy focuses on business travel as a first step, as evidence shows that business travel is a large proportion of our travel carbon footprint, and that there is significant potential to reduce this impact in various practical ways. Work is also taking place to encourage and support more active travel for staff and students wherever possible when commuting to campus, and we will work with the Imperial College Union to consider the options available to reduce the carbon footprint from student travel. As collaboration, dissemination, and fieldwork are essential for learning and research, we acknowledge that some business travel will continue.

We must also reduce the impact of our travel on the planet to safeguard our long-term future. This business travel policy is designed to transition travel to be more sustainable by making 'climate-conscious travel' our default. We can achieve this through minimising emissions and focusing on obtaining maximum benefit from a reduced volume of travel through emphasis of quality over quantity.

1. Estimation of Carbon Footprint from Business Travel at Imperial College London, Shirin Ermis, Supervisors: Paul Lickiss, Jem Woods, and Anna Korre, September 9, 2021 (UROPS project)

This policy is intended to:

1. raise awareness of the environmental impacts of travel and
2. reduce those impacts by:
 - a. encouraging a reduction in the volume of business travel; and
 - b. supporting low-carbon approaches to travel for our community.

In this policy, we have outlined the sustainable travel principles for staff and students to use as they decide whether business travel is necessary in supporting their academic, research, business, and educational objectives, and, where it is necessary, to guide the decision-making process on the most appropriate mode of travel. The policy asks colleagues to take responsibility for finding ways to reduce the carbon impact of our activities sufficiently to meet the university-wide reduction target.

We are not alone in taking a climate-conscious approach to travel: organisations across the higher education, public and private sectors are increasingly adopting policies to reduce the environmental impact of their business travel. This policy is in line with current good practice.

Context and evidence

Aviation is a very carbon-intensive activity², and it is hard to decarbonise the sector³. Non-CO₂ factors, such as condensation trails, are also a significant consideration⁴.

A return trip in economy class from London to New York is responsible for over 1.1 tonnes of CO₂ equivalent⁵. This is about a third of what the UK legal carbon budgets would imply for a whole year of an individual's activities in 2035. By comparison, the average yearly carbon emissions for someone living in the UK is currently around 4.5 tonnes of CO₂⁶. The emissions impact of flying can be over ten times greater than that of low-carbon alternatives such as rail⁷. Therefore, this policy aims to reduce air travel taken by staff and students on behalf of Imperial and switch journeys to lower-carbon modes of travel wherever possible.

As the table below shows, the carbon footprint per trip in first or business class is significantly higher than flying economy. Considering the different weight and space associated with a passenger seat in different cabin classes, the International Air Transport Association (IATA) has calculated standard CO₂ emissions per passenger⁸. This policy sets out our approach on class of travel when flying on Imperial business in light of the IATA calculations.

² [Research pathways for net zero transport.pdf \(imperial.ac.uk\)](#)

³ [Seven reasons global transport is so hard to decarbonise \(theconversation.com\)](#)

⁴ [Contrails: How tweaking flight plans can help the climate - BBC News](#)

⁵ [Greenhouse gas reporting: conversion factors 2022](#)

⁶ [Analysis: UK is now halfway to meeting its 'net-zero emissions' target - Carbon Brief](#)

⁷ Sims, R. et al. Transport in Climate Change 2014: Mitigation of Climate Change: Working Group

III Contribution to the IPCC Fifth Assessment Report

⁸ [IATA - Home](#)

Figure 1. Carbon footprint per trip (units: cabin class factors and weighting which should be applied when calculating the per passenger CO₂ emissions)

	Economy	Premium Economy	Business	First
Narrow-body aircraft	1	1	1.5*	1.5
Wide-body aircraft	1	1.5	4	5

*Narrow-body aircraft where seating in its entirety is offered as business class configuration, a cabin class factor of 4 must be applied.

Another consideration is that air travel is unevenly distributed, with around 90% of people in the world not flying, and yet the total global warming potential of air travel is between 2.5% and 3% of all human activity⁹. At Imperial, 15% of users of the university’s Egencia travel agency account for 50% of the travel-related recorded emissions (with the travel agency processing 60% of all flights taken by Imperial staff)¹⁰. As departments implement this policy, they may wish to consider how to fairly manage our use of flights and decide which air travel to prioritise.

Substituting flights for rail* (see table below) shows that the rail substitutions on routes where the journey time is broadly comparable (including check-ins and security) can result in 84–97% carbon savings per journey.

Figure 2. Carbon savings for rail substitution

Route	Journey time (hr)**		Carbon emissions (kgCO ₂)		CO ₂ reduction (%)
	Flight	Rail	Flight	Rail	
London – Amsterdam	3.5	4	90	3	97
London – Frankfurt	4	5.5	160	3.5	98
London – Glasgow	3.75	4.5	140	22	84

*These routes account for 16% of trips from a university department taken in 2018. Flight information taken from Egencia; rail journeys taken from Google maps. **Assuming 2.5 hours additional time for flying to check bags and clear security.

9. [Research pathways for net zero transport.pdf \(imperial.ac.uk\)](#)

10. Aviation emissions at Imperial College London: Current Status and Policy Recommendations, Neil Grant et al. September 2019

Scope

This policy applies to all employees of Imperial and all students who choose to, or are required to, travel as part of their learning or research. It applies regardless of whether the travel is funded by Imperial or by external funders or partners. It also applies to visitors' travel that Imperial pays for (such as invited speakers). This is in line with our policy of using our partnerships to encourage our partners to make progress in the transition towards net zero alongside us.

Wherever external partners (for example, funding bodies like UKRI and Wellcome Trust) allow, Imperial encourages staff and students to incorporate the sustainable business travel policy when designing research projects and applying for funding.

This policy focuses on business travel because that is where our largest environmental impacts lie. Currently, it does not include travel between Imperial campuses or commuting. It also does not include student travel to and from Imperial at the start and end of term times. Staff, students, and visitors are, however, encouraged to adopt a climate-conscious travel approach when making travel decisions in these instances.

Details of Imperial's expectations on how the various parts of the policy are applied are given in sections A, B and C.

This policy document will be reviewed at least every two years considering progress against our target, evolving good practice and wider requirements on us as an organisation. The next review is scheduled to take place by September 2025.

Additional support and related policy

- Staff Travel and Expenses
- Offsite Working Policy
- Occupational Health Service
- Workplace Adjustments



Section A

Climate-conscious approach to travel

To adopt a climate-conscious approach to travel, staff and students are encouraged to work through the following steps:

1. Consider what is essential business travel, who are the essential travellers and decide whether a virtual approach and/or a reduced number of trips and travellers is possible.

Some examples of potential trips where travel might have value are listed below to help determine whether a specific journey is essential for progressing research, learning or business:

- Proposal-drafting or kick-off meetings with project partners to build personal working relationships and trust for long-term collaboration.
- Fieldwork/laboratory work trips that cannot be carried out locally or virtually.
- Long-stay research, study or business exchange visits.
- Establishing networks of researcher collaborations or career development opportunities.
- Fact-finding missions with multiple meetings in one trip.
- Alumni and recruitment meetings where face time is valuable for building relationships.
- Fundraising meetings where in-person interaction is significantly more likely to result in a successful outcome.
- Public outreach, engagement, teaching, recruitment activities that cannot be carried out locally or virtually.

Consider whether travel in these categories is associated with significant opportunities or outputs that can only be achieved by in-person activity and how many people are essential on each trip.

2. Alternatives to business travel: Video conferencing and teleconferencing.

Identify opportunities to fund and use technological solutions for virtual working in grant proposals. Microsoft Teams and Zoom are available to all staff and students, with the support of the ICT department. More information on [Microsoft Teams](#) (our preferred and best supported collaboration tool) can be found online.

Support and promote the use of alternative methods of sharing research and interactions with peers, collaborators, and stakeholders, such as video presentations and social media (including taking advice on how to gather and evaluate social media reach).

Encourage regular, routine, or administrative meetings with colleagues and collaborators to take place online.

3. Maximise the value of necessary journeys if travel needs to be taken.

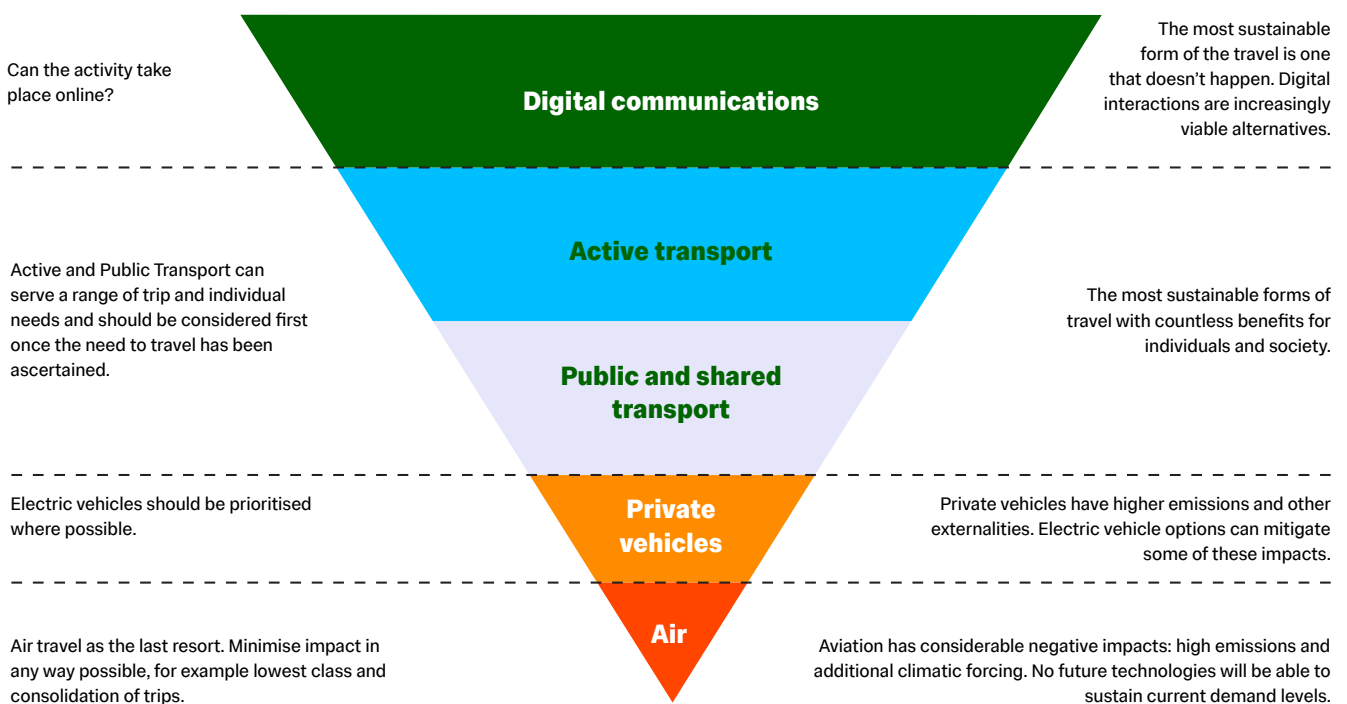
This can include using a trip to develop networks, provide talks and attend conferences in addition to the primary reason for travel. Use fewer journeys with a longer stay to get more out of each trip where possible (with consideration to additional factors such as safety, caring responsibilities, health, and wellbeing).

Consider booking your travel as early as possible to allow time to fully explore all travel options.

4. Line managers and Heads of Department are expected to support staff in taking sustainable travel options even when this requires more time and cost.

The travel hierarchy below illustrates the climate-conscious travel approach: reduce travel as much as possible and if you are travelling, take the lowest carbon option possible.

Figure 3. Climate-conscious travel approach



Section B

Business travel

Business travel refers to all travel associated with Imperial work, including for research, student recruitment and teaching. Business travel includes domestic and international travel taken on behalf of Imperial.

1. Journeys possible by rail in five hours or less

- 1.1 For local and national travel, where available, public transport, cycling and walking should be the default over private car use.
- 1.2 Mainland domestic flights in the UK are not permitted if the destination can be reached within five hours by train, unless there are exceptional operational or wellbeing reasons, such as:
 - a need for reasonable adjustments such as disability or other health-related reasons
 - fitting work travel around childcare or other caring responsibilities
 - rail being unavailable for time-critical travel, such as due to strikes or engineering works

Line managers are expected to encourage staff to take a climate-conscious approach to travel. Reasonable exceptions on the above grounds will require approval by Heads of Department or their delegates. Supporting information on workplace adjustments (previously known as reasonable adjustments) can be found on the [Workplace Adjustment webpages](#). Further information on travel health advice and guidance for passengers with mobility issues can be found on the [Occupational Health webpages](#).

The [Egencia Booking Tool](#) offers the user rail options when searching for bookings. Both rail and air options show the CO₂ emissions for each option to allow a simple comparison at the point of booking.

- 1.3 If rail is taken as the lower-carbon alternative in place of a flight, a higher class of rail travel may be permitted to enable colleagues to work effectively during the longer trip while travelling by train (refer to Section 3. Expenses below for more details).

CHECKLIST FOR RAIL TRAVEL

In most cases choose:

- public transport, cycling and walking over private car use
- rail travel for journeys of five hours or less (exemptions apply)
- international rail services for European destinations where practical
- public transport for local travel at your destination

- 1.4 Wherever practical, international rail services (such as Eurostar) should be used for travel to and from European destinations that can be reached within five hours from London terminals, over air travel. This principle applies even where taking the train is the more expensive option (including premium standard and first-class rail travel as noted in point 1.3), noting as above that a number of funders now cover climate-conscious travel even when it is more costly.
- 1.5 Sleeper trains for long rail journeys are encouraged, where they are possible (refer to Section 3. Expenses below for more details).
- 1.6 Following line manager discussions ahead of the trip, time back in lieu may be requested and offered for those who choose the lower carbon option (rail or where applicable, cycling) to flights or private vehicles for business travel, wherever this can be reasonably accommodated.
- 1.7 Public transport, where available and practical, is encouraged for local travel when arriving at your destination from the train terminal or airport.
- 1.8 There may be occasions where the rail alternative to flights is not appropriate such as safety considerations (for example in some countries or regions where public transport may not be sufficiently safe) or health, wellbeing or caring responsibilities.
- 1.9 Road vehicles may be considered when transporting equipment for fieldwork or when travelling in large groups, such as for fieldwork teaching, which may change the consideration in favour of hiring a coach.



2. Long-haul travel

2.1 Where a virtual approach is not possible and flights are necessary and taken, all staff and students are expected to travel in economy class (including, if justified, premium economy) unless there is a clear justification for a higher class of travel to account for health and wellbeing needs.

For example:

- an established reasonable adjustment or occupational health issue
- the need to start work such as presenting work or other substantive public-facing work immediately after a long-haul flight

Colleagues are encouraged to consider alternative options such as flying out the night before wherever possible.

If you need to use a higher class of travel this should be done at the minimum level required to meet these needs for the trip – meaning premium economy should always be considered before requesting business class and there may not be justification for a higher class of travel on both legs of the journey. This approach is adopted because higher classes of travel take up a significantly greater percentage of space in the aeroplane, so are responsible for significantly higher carbon emissions, as set out above.

Sign-off by Heads of Department or their delegates is required for flights at a higher class than economy or premium economy – the default of economy class is an established requirement from the preceding travel policy; however, this policy now asks staff and Heads of Department to add climate impact to their considerations when choosing or approving travel options. Premium economy should be the default upgrade for health and wellbeing reasons.

2.2 If flying is required, where possible, staff and students are expected to select non-stop flight options. This is the most fuel-efficient option as jet take-off and landing produce the most carbon emissions during the flight.

3. Expenses

3.1 Expenses can be incurred to allow staff and students to work while travelling in a lower carbon-intensive mode (for example internet connection charges to work on the train).

3.2 Staff and students may claim additional subsistence expenses (such as food and drink) if travelling by a lower carbon-intensive mode results in more travel time.

3.3 Staff and students may claim additional expenses for overnight accommodation to facilitate rail journeys over flying.

3.4 Staff and students may be reimbursed 20p per mile for travelling by bicycle on a business trip. More information can be found in the [Expenses Policy \(p18\)](#).

CHECKLIST FOR LONG-HAUL TRAVEL

In most cases choose:

- economy class as default
- non-stop flight options

4. Carbon offsetting

We recognise the challenges of offsetting as there are not yet established market standards for quality schemes.

Imperial has previously sought to procure further offsetting schemes, in addition to our existing scheme (Profs Who Fly) but has not so far been able to find one available of sufficiently high quality. For now, we will continue to use Profs Who Fly, including where offsetting is required by funders (for example Wellcome Trust [Carbon offset policy for travel – Grant Funding | Wellcome](#)).

We are not seeking to procure a further offsetting scheme for business travel in the market at the current time, but rather to focus on reducing our travel emissions. The Sustainable Travel Working Group will review our options for the future and may consider further credible carbon-negative schemes should the evidence and quality of schemes in the market improve. In addition, we will continually reassess what is defined as ‘unavoidable’ emissions as new technologies become available.

If an individual faculty or department wish to engage in a verifiable offset scheme, this must be reviewed by a sub-set of the Sustainable Travel Working Group for approval before purchase and implementation, to ensure that it meets standards that are acceptable to Imperial.



Section C

Supporting change, monitoring, and review

To support the climate-conscious travel approach, Imperial will:

- encourage prioritising fewer high-quality trips over quantity of travel
- support staff and students who need to travel on behalf of Imperial to adopt lower-carbon options wherever possible
- support staff and students who cannot travel or choose not to travel by providing alternatives to business travel through video conferencing, teleconferencing and other options
- improve our data collection on staff and student travel, particularly by air, to benchmark and develop accurate targets for the future
- promote and develop our nominated travel supplier's online booking tools to enable lower-carbon travel options to be more prominent and easier to arrange for travel bookers
- streamline our nominated travel suppliers for air, rail, Eurostar, and taxi bookings to make the booking process as seamless as possible
- encourage departments to top-up research groups with the additional expenses that rail trips might incur in comparison to flight travel if these cannot be covered within funders' policies or offset through reductions in volume of travel
- monitor business air travel via Egencia and expense claim data at a faculty and departmental level every six months to review our position and whether our carbon emissions have been reduced. This will be reported at the Sustainability Strategy Committee to then share with faculties and departments. We will investigate options to set up automatic data collection to support monitoring and reporting
- encourage funders to adopt our Sustainable Travel Policy principles within the terms and conditions of awards, where they do not already
- endeavour to upgrade all meeting room facilities in the South Kensington and White City campuses with high-quality audio and video equipment to support virtual meetings instead of travel:
 - a. performance reviews of academic and research staff will encourage the virtual attendance to conference meetings instead of attendance in person wherever possible, and quality over quantity of travel
 - b. when hosting an event, Imperial will strive to always make it hybrid (in-person and online)

The Sustainable Travel Working Group will:

- develop annual indicators to keep track of progress such as total air miles travelled, total number of flights taken, total number of flights taken in business class and total number of international flights per full-time equivalent.
- continue to review the guidelines that inform Imperial's approach to all matters relating to business travel (such as investigating a travel mitigation fund or internal carbon tax).