



**Travel & Aviation Working Group**

**Monday 11<sup>th</sup> May 2020, 3pm**

**Microsoft Teams**

**AGENDA**

- |          |   |                |
|----------|---|----------------|
| <b>1</b> | <b>Minute</b><br>To <u>approve</u> the minute of the previous meeting on 27 February 2020   | <b>TAWG 17</b> |
| <b>2</b> | <b>Consultation Survey Results</b><br>To <u>receive</u> a presentation from the Market Insight Manager, Communications & Marketing  | <b>Verbal</b>  |
| <b>3</b> | <b>Draft Equality &amp; Diversity Impact Assessment Document</b><br>To <u>note</u> and <u>discuss</u> a paper from the SRS Projects Coordinator   | <b>TAWG 18</b> |
| <b>4</b> | <b>2020-21 Pilot</b><br>To <u>discuss</u> options as a group  | <b>Verbal</b>  |
| <b>5</b> | <b>Final Report – Early Draft</b><br>To <u>note</u> and <u>discuss</u> a paper from the Director of SRS   | <b>TAWG 19</b> |
| <b>6</b> | <b>List of Proposed Decisions and Recommendations</b><br>To <u>discuss</u> and <u>agree</u> a paper from the Director of SRS  | <b>TAWG 20</b> |
| <b>7</b> | <b>Any Other Business</b><br>To <u>consider</u> any other matters from Group members including: <ul style="list-style-type: none"><li>• <a href="#">Social Responsibility and Sustainability Report 2018-19</a></li><li>• Forestry update</li></ul> | <b>Verbal</b>  |
| <b>8</b> | <b>Summary &amp; Next Steps</b><br>To <u>note</u> a summary of the meeting and next steps from the Convener   | <b>Verbal</b>  |

*As a member or attendee of University committee meetings, we process and store your data in accordance with our privacy statement. Your involvement in a committee is public by default, but you may opt-out by contacting [SRS.Privacy@ed.ac.uk](mailto:SRS.Privacy@ed.ac.uk) or [Jane.Rooney@ed.ac.uk](mailto:Jane.Rooney@ed.ac.uk)*

**MINUTE OF A MEETING** of the Travel & Aviation Working Group held in ECCI Boardroom on Thursday 27 February 2020.

**Present:** Sandy Tudhope (Convenor), University Lead on Climate Responsibility and Sustainability  
 Richard Anderson, Senior Lecturer, Architecture and Landscape Architecture  
 Harry Campbell, Personal Chair of Genetic Epidemiology & Public Health  
 Chris Cox, Executive Director Development and Alumni  
 Gavin Donoghue, Deputy Director, Stakeholder Relations, Communications and Marketing  
 Dave Gorman, Director of Social Responsibility and Sustainability  
 Bruce Nelson, College Registrar, Science and Engineering  
 Siôn Pickering, SRS Projects Coordinator  
 Rachael Robertson, Deputy Director of Finance  
 Rosheen Wallace, Students' Association VP Community

**In attendance:** David Brook, Support Services Operations Manager, for Grant Ferguson

**Apologies:** Kevin Ashley, Director, Digital Curation Centre  
 Grant Ferguson, Director of Estates Operations  
 James Smith, Vice Principal International

**1 Minute**

**TAWG 10**

The Convenor welcomed attendees to the third meeting of the Group.

The minute of 18 December 2019 was approved as a correct record.

*Matters Arising*

Sarah Cunningham-Burley, as Equality, Diversity and Inclusion lead for the University, would ask two female early career researchers to join TAWG.

**2 Consultation & Communications Process**

**TAWG 11**

The Group had agreed to issue written consultation materials, hold Town Hall meetings on each campus, and present at a range of management team meetings. As the original consultation document was felt to be too long, a simpler version had been produced, to be hosted on the website. It was confirmed that Ethics Committee approval would be required in order to run the student survey. Positioning would be important, including clearly stating the University's commitment to climate conscious travel, and emphasising that it was only how this would be implemented that was within the scope of the consultation. Concerns were raised that some survey questions were worded in a way that seemed to anticipate a negative response.

**TAWG**

**11.1**

**TAWG**

**11.2**

**TAWG**

**11.3**

**TAWG**

**11.4**

Action – DG & SP to update the wording to clarify that it was not whether UoE was going to introduce these measures, but how.

Action – DG & SP, where possible, to replace 'the University' with 'we'.

Action – DG & SP to reframe questions to emphasise that these were positive choices the University was making.

Action – DG & SP to consider replacing the term 'levy' with 'required contribution'.

Some members felt it was important for the Group to get its policy goal locked down before going out to consultation, including whether the levy would be graduated, so this could be explained upfront in the consultation materials. Following discussion, the Group reached broad agreement that, since it was going out to consultation, it should be prepared to change its ideas as a result. These points would therefore be decided after the consultation, so outputs from it could be used to inform the process.

Members felt that splitting into two documents had left the survey without adequate framing. Some context needed to be included upfront in the form of a 1/2 to 1 page Executive Summary, leaving the rest as an optional additional resource. This context material could be split across the email, the webpage, and the survey itself. Another option would be to have an initial 'key questions' section, then a longer section 2 for those willing to do more. The section at the end explaining what would be done with the results should be moved to the start.

The infrastructure question was currently unclear and needed rewording. Given the current industrial action, a reminder email should be sent once action had concluded to ensure striking colleagues did not miss the opportunity to consult. The VCT questions should take into account systems used by key partners, such as the World Health Organization.

Action – DG & SP to include a question asking 'What other systems are missing that are key for your work?'

Action – HC to share further comments by email.

Action – DG & SP to include a question asking 'If we introduce a levy, what impact would this have on your behaviour, and why?'

Members noted the time-sensitive nature of the consultation, given that the Principal expected the Group to come forward with concrete plans in the next few months. TAWG therefore agreed to delegate final decisions on the consultation to the core team, to allow it to go ahead on schedule.

### **3 How To Assess Equality and Diversity**

The Convenor had discussed options with Sarah Cunningham-Burley, who advised that it was not necessary to complete an E&D assessment, provided that TAWG ensured it had consulted, been open to change, and had provided clear avenues to reflect on its proposals from this perspective. This could then be written up at the end of the process. The E&D Team were interested in reviewing the proposals, but would need a final draft. This could also be sent to local EDI committees for their review.

Action – DG & SP to include a survey question on EDI, asking what kind of adjustments might be appropriate.

### **4 Outline Framework for Final Report**

The SRS Projects Coordinator ran through the outline template. The Group were broadly happy with the layout, noting that it may shift a little once the results of the survey were in.

Action – All members noticing anything missing or that should be more prominent to email SP.

## 5 Carbon Offsetting & Interim Position

TAWG 13  
TAWG 14

The Group noted TAWG 13 which had been agreed by University Executive on 25 February. The purpose of the paper was to provide clarity on offsetting. Some tariff-based schemes allowed organisations to set multiplication factors to zero. UoE did not find these approaches credible, as nothing tangible had changed. It had also ruled out transactional, market based approaches. Instead, the University favoured offsetting through direct ownership or long-term partnership programmes, subtracting the offsets to get a net carbon figure. It was important for the University to ensure that the approaches it invested in would be effective. TAWG agreed with the proposed approach, as while it would be more expensive, it would position UoE at the right end of the sector.

TAWG 14 outlined a number of potential options for University-wide carbon offsetting in the short term, until a high-quality carbon sequestration project could be delivered directly by the University. Options included collecting offsetting funds to recycle into a University-run offsetting scheme, selecting an approved third party offsetting scheme, or allowing individual travellers to decide how to offset their carbon. It should be made clear that these third party offsets would not count towards the University's carbon accounting. A lot of colleagues were already keen to offset in some form, including some whose grants required it. UoE needed to have an interim position until its own scheme was up and running.

One option was to make people aware of plans to implement a levy, and discourage them from offsetting individually in the meantime. Individuals who were unwilling to wait could make a voluntary contribution to the Sustainability Fund. To meet the Wellcome Trust's requirement, UoE would need to have an offset mechanism in place by October 2021. Discussion with the Wellcome Trust would be needed to work through the implications. The proposed Sustainability Fund would need to be set up as a rolling fund, in order to be able to 'bank' contributions beyond July 31<sup>st</sup>.

TAWG agreed to focus on getting the proposed forests project established and channel all other contributions into that via the proposed fund, or interim (non-countable for carbon accounting) payments. The Group would ask University Executive to prevent payments to third parties for carbon accounting purposes but with the option to support one particular charity until such time as the overall project is established.

Action – SP to update the outcomes and recommendations.

Action- DG/ST to ensure planned paper on forests to University Executive secures agreement on this.

## 6 Processes & Policies

TAWG 15

This paper put forward options around how a levy could be charged, and included a draft update to the Expenses Policy on travel. Since the paper was issued a discrepancy in the Key Travel data had been found – the way raw data was fed into the system had led to some instances of duplication. This could be resolved by making changes to the way travel expenditure was coded. Overall, the Deputy Director of Finance noted that the way the University processed its travel expenditure did not lend itself to easy application of a levy. It was recommended that a pilot be run first during 2020-21, to ensure a levy would drive behaviour change in the desired way.

This update to the Expenses Policy aimed to re-emphasise the sustainability responsibilities of all University employees when considering how they will travel. Previously there had been some contention around the use of 'must' or 'should'. In the new version the language had been tightened up to support the intended behavioural changes. The new draft may be challenged as it moved through the committee structure, and it would be important to have the support of this Group behind the new wording. TAWG noted that some organisations were allowing their staff an extra day to facilitate travel by lower carbon methods. For the UoE context it would be more useful to frame this in terms of workload reduction rather than TOIL, as academics and senior professional services staff tended not to keep hours, but focus on delivering the job.

Action – All members with further comments on the draft travel expenses policy to email these to Rachael.

The Group were interested in the idea of taking a loan in order to support sequestration and VCT ambitions, using the levy to repay it. The SFC had some funds that the University may be able to benefit from at a preferential rate. The Director of Finance would allow an exception for this purpose, but not broader borrowing.

Members discussed the potential complications around introducing a differentiated levy for short versus long haul flights. If there were still flaws in the travel data this could undermine the process. The amount of admin time required could also be counterproductive.

The Group recognised the tension between the need to move quickly and invest in sequestration now, and the need to ensure the levy incentivised climate conscious travel decisions. The proposed 10% top-slice would ensure an income stream was initiated, which was important to fund offsets, but to maximise the impact on individual behaviour the measure needed to be directly connected to each traveller's flight. One option would be to separate the two aims, and seek funding for sequestration projects elsewhere, but having a clear link between the two enhanced the credibility of the scheme.

Members advised trialling the levy in one School or area first to ensure it would work as intended. The School of Maths had expressed an interest in implementing a levy and would make a good pilot location. As not many organisations had introduced levies, and those that had tended to set them low, there was not yet a lot of evidence available on how effective they were in producing behaviour change.

Making booking through Key Travel mandatory could be a major issue for some areas. The service received from Key Travel could be very mixed, and it was perceived not to be cost effective. Some work was needed to review service provision across the sector and investigate whether Key Travel was the right provider for the University. Booking through their online portal should give staff access to the same deals available elsewhere.

TAWG noted the Wellcome Trust's announcement that they were now willing to fund carbon offsetting, and were asking organisations to set up their own arrangements with offset providers. It was anticipated that other funding bodies would follow.

The Group recognised that the income stream from a levy could not be guaranteed. For example, funds awarded to enable staff to upgrade to first class rail travel could

exceed income generated by the levy. Timing would be important, ensuring that the levy was introduced before contribution targets were set for the Colleges.

Members noted there could be significant philanthropic interest in funding this, which could be undermined by labelling it a levy rather than a financial gift. A better approach could be to frame these income streams as 'contributions' towards the sequestration fund.

TAWG recognised that there was still work to be done to identify the most effective way to apply the levy. The Group agreed to proceed with the top-slice in the meantime, and then spend that year trialling different approaches to a levy, ensuring whatever the final approach would be, that it did not come in too quickly or too punitively. The proposed low-interest loan would allow sequestration ambitions to move ahead in the meantime. Members expressed concerns around the effectiveness of a levy as a tool to incentivise behaviours, but recognised that it was just one part of a package of measures, and that delivering behaviour change was a long-term process. It was important that communications frame the levy in a positive way as the right thing for the planet, including a clear values-based statement from UoE.

## **7 Corporate Business Travel Reduction Initiatives**

**TAWG 16**

The SRS Projects Coordinator provided an overview of initiatives to reduce business travel emissions from organisations outwith the FHE sector. Overall, there was very little information available in the public domain. Broadly, initiatives had followed the same five approaches: enacting travel policies focused on travel avoidance; enhancing data and reporting; introducing a carbon levy; incentivising low-carbon travel; and carbon offsetting. Non-FHEIs had the advantage of being able to enact a travel policy across all staff. Overall, nothing jumped out as particularly novel or unique compared to measures adopted within the FHE sector.

Members found the report useful, noting that there may be other initiatives running that were just difficult to uncover. It was felt that the organisations would not be enacting these travel policies if they did not also offer a financial saving. It would be interesting to get more detail on their experience. UoE could implement a travel approval process before booking, which could just take the form of a self-evaluation. Another option, if granular data was available, was to issue staff with a personal carbon report and a challenge to reduce it. Areas that performed well could receive an award in recognition, or have some of the funds from the levy recycled back into local projects.

TAWG agreed to set aside time at the start of the next meeting for broader discussion of other creative business travel reduction ideas.

## **8 Sustainability Fund**

The Director of SRS discussed governance and processes for the fund, including different potential sources of income and projects the fund could support. In addition to the previously discussed staff levy, it was possible that a levy could be taken from international student fees. £100 from each student had the potential to double the fund. Other options to consider included seeking crowd funding, or philanthropic giving via Development & Alumni. In this way it could become another fund to help the University achieve its sustainability ambitions.

While the bulk of the money would be used to support sequestration, there was scope for 10 to 15% to be set aside for carbon/ecology projects with students, staff

and the local community. 10% could be ring-fenced to invest in improving UoE's video-conferencing facilities, and 5% set aside for research on behaviour change, travel impacts and alternatives, and the role of travel in the student experience.

The Group acknowledged that, despite the positive impact of the fund, it still represented a £1M impact on the service of the University. Members were broadly supportive of the proposals, particularly the idea of student projects which could be very impactful in terms of future careers, but raised two concerns. Firstly, that a levy on international student fees could be problematic in terms of PR and messaging, as there was not the same element of choice as with staff travel, and secondly, that investment in VCT was a managerial decision between the University and the Chief Information Officer. It was also dependent on the quality of partner organisations' facilities.

TAWG acknowledged that a possible international student levy was beyond its remit. The possibility of including a mechanism for an additional voluntary contribution when booking flights instead of using external offset providers could have a positive reputational impact.

Action – David Brook to send his comments to JR.

## **9 Any Other Business**

The Head of the Wellcome Trust had announced that for the next few months they would do all personal European travel by rail and report on their experience.

Members discussed asking Key Travel to include a default rail option where feasible, including cost, time taken, and carbon figures.

## **10 Summary & Next Steps**

The Convenor noted that TAWG had given approval for the core team to take forward the consultation process in line with the key discussion points.



## Equality Impact Assessment Template

Before carrying out EqlA, you should familiarise yourself with the University's EqlA Policy Statement and Guidance and Checklist Notes, and undertake our online training on Equality and Diversity and EqlA. These, along with further information and resources, are available at [www.ed.ac.uk/schools-departments/equality-diversity/impact-assessment](http://www.ed.ac.uk/schools-departments/equality-diversity/impact-assessment)

EqlA covers policies, provisions, criteria, functions, practices and activities, including decisions and the delivery of services, but will be referred to as 'policy/practice' hereinafter.

<b>A. Policy/Practice: Climate Conscious Travel Proposals</b>	
<b>B. Reason for Equality Impact Assessment:</b>	
Proposed new policy/practice.	<b>Proposals being put forward to the University Executive to reduce business travel at the University in order to reduce carbon emissions to support a 'carbon neutral by 2040' target in the University's 2016 Climate Strategy</b>
Undertaking a review of an existing policy/practice.	<b>If accepted by the University Executive, these proposals will lead to new policies (and associated guidance) which will subsume a number of other business travel related documents including the expenses policy and individual travel policies within schools and departments.</b>
<b>C. Person responsible for the policy area or practice:</b>	
Name: <b>To Be Confirmed</b>	
Job title:	
School/service/unit:	
<b>D. An Impact Assessment should be carried out if any of the following apply to the policy/practice, if it:</b>	
Affects primary or high level functions of the University	<b>Yes</b>
Is relevant to the promotion of equality (in terms of the Public Sector Equality Duty 'needs' as set out in the Policy and Guidance)?	<b>No</b>
Is one which interested parties could reasonably expect the University to have carried out an EqlA?	<b>Yes</b>
<b>E. Equality Groups</b>	
To which equality groups is the policy/practice relevant and why? (delete any that are not relevant):	



- Age
- Disability
- race (including ethnicity and nationality)
- religion or belief
- sex
- sexual orientation
- gender reassignment
- pregnancy and maternity
- marriage or civil partnership<sup>1</sup>

Add notes against the following statements where applicable/relevant:

On any available information about the needs of relevant equality groups:	<p><b>Disability:</b> individuals: with disabilities impacting on mobility; where stress increases due to prolonged travel; where virtual tools are not suitable due to audio or visual impairments;</p> <p><b>Sex:</b> greater impact of prolonged travel on those with caring responsibilities; for women where risks are higher when travelling alone;</p> <p><b>Pregnancy or maternity:</b> greater impact on those with caring responsibilities;</p> <p><b>Age:</b> seniority in career often equates to increased age. As such: impact on less senior travellers who may not have as many choices regarding travel as their senior colleagues; senior colleagues who may be required to travel more frequently, or for longer periods of time.</p> <p><b>Race:</b> on partners from low-income countries</p> <p><b>All Equality Groups:</b> where travel through certain regions or countries may lead to discrimination.</p>
Any gaps in evidence/insufficient information to properly assess the policy, and how this be will be addressed:	<p>No gaps in evidence where found when considering the proposals being put forward at this time.</p> <p>The final wording of any new policies related to business travel have yet to be completed. This equality impact assessment has been completed in regards to proposals being put forward to the University Executive by the Travel and Aviation Working Group.</p> <p>A further equality impact assessment, or an adaptation of this document, will be required once any final policy documentation has been developed regarding climate conscious travel at the University.</p>
If application of this policy/practice leads to discrimination (direct or indirect), harassment,	Responses from the Climate Conscious Travel Consultation show that the proposals being put forward have the potential to negatively impact on the equality groups noted above should

<sup>1</sup> Note: only the duty to eliminate discrimination applies to marriage and civil partnership. There is no need to have regard to advancing equality or opportunity or fostering good relations in this respect.

victimisation, less favourable treatment for particular equality groups:	they be implemented without careful consideration for each group.
If the policy/practice contributes to advancing equality of opportunity <sup>2</sup>	It is possible that the proposals being put forward would advance equality as the requirement to travel would be greatly reduced. For example, this could be due to the adaptation of promotion requirements to provide less emphasis on international travel. This would benefit staff and students from a range of equality groups who may not be able to travel for the reasons set out above.
If there is an opportunity in applying this policy/practice to foster good relations:	Not directly
If the policy/practice create any barriers for any other groups?	There is potential for these proposals, and the subsequent policies that would be required to enact the proposals, to create barriers for those who travel as on behalf of the University. The greatest impact would be on those that travel frequently on behalf of the University as well as those with limited funding, or time, for travel.
How the communication of the policy/practice is made accessible to all groups, if relevant?	<p>The proposals will be available at numerous locations on the University website where information on business travel is provided. Upon completion of the proposals, this document will be updated with the locations of these proposals online, and accessible formats of this document will be available on request.</p> <p>In time, a full communication plan for the policy will be created which, in part, will ask all schools and departments to disseminate this information to their travellers (staff and students).</p>
How equality groups or communities are involved in the development, review and/or monitoring of the policy or practice?	<p>During the consultation phase, equality groups across the University have been contacted directly to provide input on the proposals.</p> <p>In addition, all survey respondents were invited to feedback on potential Equality, Diversity, and Inclusion issues via a direct survey question.</p> <p>Final proposals will be discussed with the University's Equality and Diversity team and, where applicable, representatives from the equality groups in question, prior to final submission to the University Executive.</p>
Any potential or actual impact of applying the policy or practice, with regard to the need to eliminate discrimination, advance equality and promote good relations?	Wording of the proposals, and subsequent policy wording needs to take into account of the impacts for all equality groups noted above.
<b>F. Equality Impact Assessment Outcome</b>	

<sup>2</sup> This question does not apply to the protected characteristic of marriage or civil partnership

**Option 2:** Adjust the policy or practice – this involves taking steps to remove any barriers, to better advance equality and/or to foster good relations.

**G. Action and Monitoring:**

Specify the actions required for implementing findings of this EqlA and how the policy or practice will be monitored in relation to its equality impact (or note where this is specified above).	Wording of proposals are to be written to ensure that all equality groups impacted by the climate conscious travel proposals - noted by the Travel and Aviation Working Group, as well as through the consultation process - have been taken into account.
When will the policy/practice next be reviewed?	Should the proposals be taken forward by the University, additional policy and guidance documentation will be required to enact the proposals. As such, a new Equality Impact Assessment will be required at this time.

**H. Publication of EqlA**

Can this EqlA be published in full, now?  If No – please specify when it may be published or indicate restrictions that apply:	This Equality Impact Assessment can be published in full following the submission of the proposals to the University Executive in June 2020.
--	--

**I. Sign-off**

EqlA undertaken by:	<b>Siôn Pickering</b> Project Coordinator, Department of Social Responsibility and Sustainability (SRS)
Accepted by:	(name): <b>To Be Confirmed</b>  (this should be head of dept./project lead  [This will normally be the person responsible for the policy/practice named above. If not, specify job-title/role.]
Date:	

Retain a copy of this form for your own records and send a copy to [equalitydiversity@ed.ac.uk](mailto:equalitydiversity@ed.ac.uk)

**Travel and Aviation Working Group**

**Final Report**

**Draft 1.2**

**April 2020**

**Contents**

Section 1: Executive Summary .....	3
Section overview .....	3
Section 2: Introduction .....	4
Section overview .....	4
Broad Context .....	4
The environmental impact of aviation .....	4
Our ambitions .....	6
University Climate Change Strategy .....	7
Work of SRS to date .....	7
Movement to address business travel within the Higher Education sector .....	10
Recent events: The impact of coronavirus COVID 19 on travel. ....	10
Section 3: TAWG .....	12
Section overview .....	12
Remit and scope of the TAWG group .....	12
Membership of TAWG .....	12
TAWG meetings / process .....	13
TAWG vision .....	13
Climate Conscious Travel .....	13
Section 4: Financial Model .....	15
Section Overview .....	15
Purpose of the Financial Model .....	15
Criteria and Scenarios .....	15
Criteria .....	15
Scenarios .....	15
Limitations .....	16
Findings .....	17
Next steps .....	17
The impact of COVID-19 on University travel patterns .....	18
Section 5: Equality, Diversity, and Inclusion .....	19
Section Overview .....	19

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

Initial process .....	19
Issues Raised .....	19
Possible Positives of Climate Conscious Travel .....	20
Equality Impact Assessment .....	20
Section 6 – Consultation .....	21
Section Overview .....	21
Sample.....	21
Design .....	21
1. Online Survey .....	21
2. Townhall Meetings open to all staff and students.....	22
3. Direct email responses.....	22
4. Focus groups with Key Stakeholders .....	22
Communications .....	23
Findings .....	23
1. Online Survey .....	23
2, 3, & 4 Townhall meetings; direct email responses; and responses from management groups.	23
Section 7: Proposals .....	27
Section overview .....	27
Initial Proposals .....	27
Required Contribution on all flights .....	27
Flight Free Travel within mainland Britain.....	27
Information and awareness-raising of climate conscious travel options .....	28
Changes to the Expenses Policy.....	28
Incentives to increase low-carbon travel .....	28
Promotion of Video Collaboration Tools .....	28
Carbon Sequestration .....	28
Finalised Proposals.....	29
Section 8: Next Steps .....	30
Section overview .....	30
References.....	31
Appendices .....	32

## Section 1: Executive Summary

[Section overview](#)

**Commented [PS1]:** To be completed following completion of the consultation & TAWG final recommendations.

## Section 2: Introduction

### Section overview

This section sets out the background to the University's focus on climate change, with a particular focus on aviation in the context of business travel. It starts with the broad context of climate change on a global scale before detailing the work undertaken at the University of Edinburgh to reduce its travel emissions

### Broad Context

Climate change is one of most significant global challenges of the century. Australian wildfires. Coral Reef bleaching. Mass arctic ice melting. Global famine. Extensive UK flooding. All of these devastating events have become more apparent, and prevalent, in recent years, and are being linked to anthropological climate change (Hannart et al, 2016).

The Paris Agreement, signed by more than 170 countries in 2016, sets out a pathway for limiting the global temperature rise to below 2 degrees above pre-industrial levels, and pursue an effort to cap this to below 1.5 degrees. Since this time, decisive action has been slow to emerge at a global level, with cooperation challenging across such varied economies. As such, nearly 1,400 governments, local authorities, and individual organisations worldwide have declared a climate emergency, looking to introduce local level actions to mitigate human impact on the climate. The effects of such declarations are beginning to show. For example, the recent UK Court of Appeal's decision to classify Heathrow's third runway as illegal due to the inconsistency between the plans and the UK Governments commitment to tackling the climate crisis (UK Government, 2020).

### The environmental impact of aviation

When considering climate change, flying is one of the most carbon-intensive single actions an individual can take. A return flight from Edinburgh to New York emits more CO<sub>2</sub>e than the average person from 53 different countries emits in a year (Kommenda, 2019a). Globally, aviation emitted a total of 915 million tonnes of CO<sub>2</sub> in 2019, accounting for an estimated 2% of global carbon emissions (Air Transport Action Group, 2019). If aviation were a country, it would have been the sixth largest emitter of CO<sub>2</sub> in 2019 (World Bank, 2019).

It is noted that the global emissions from aviation are significantly lower than emissions released from energy (**Error! Reference source not found.**). However since 2005, the number of air passengers - and their associated emissions - have doubled. This figure is expected to rise by a factor of four by 2050, overtaking the emissions from energy in this time, especially as emissions from energy reduce due to decarbonisation of national grids (Macintosh & Wallace, 2009; The International Air Transport Association, 2011; World Bank, 2018).

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

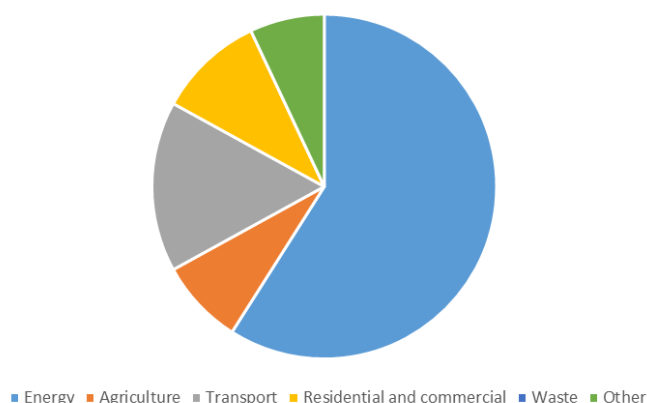


Figure 1. Breakdown of global carbon emissions by sector, based on 2010 data from International Energy Agency (IEA) for The World Bank. Transport accounted for circa 16% of emissions.

In 2018, 58% of global passenger flights were attributed to the 36% countries considered by the World Bank to be high-income, compared to 1% of global passenger flights for the 14% of countries considered low-income. In 2019, the UK accounted for about 4% of air passengers, behind only the USA (24%) and China (13%). It is also noted that only about 5-10% of the global population travel by air, with 10% of the UK population accounting for 52% of UK air travel, showing the inequality of air travel (Kommenda, 2019b; Sullivan, 2020).

It is true that aircraft technologies have been developed to become less polluting, with airliners in 2014 burning 45% less fuel compared to comparable airliners from 1968 (Kharina & Rutherford, 2015). However, air travel remains one of the greatest carbon emitters per passenger kilometre travelled (see Table.1), and significant additional advances in technology - such as electric planes - are not likely within the next decade, even at a small scale (Pfeifer, 2019).

Mode of transport	Average CO <sub>2</sub> e emissions per KM (DEFRA, 2019)
Air – Domestic	0.13483 (0.25493 with radiative forcing)
Air – Short Haul	0.0837 (0.15832 with radiative forcing)
Air – Long Haul	0.10342 (0.19562 with radiative forcing)
Car (no passengers)	0.1771
Taxi (with one passenger)	0.15018
Bus	0.10471
Rail	0.04115
Ferry	0.0218

Table.1. Average carbon emissions per kilometre for air, land, and water based passenger travel, provided by the Department for Environment, Food and Rural Affairs (DEFRA), 2019

#### Additional environmental factors when flying

In addition, there is evidence that reports that there is an additional warming effect due to the release of emissions high in the atmosphere (Henderson and Wickrama, 1999). This effect is known as radiative forcing, and the effect is estimated to be 1.9x the emissions released at ground level. When



## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

flying, the class of travel also impacts on the amount of emissions released, with passengers in higher classes (e.g. Business Class and First Class) emitting more CO<sub>2</sub>e than passengers in economy class (Table.2). This is because individual seats take up more space and are heavier in higher classes, and so require a greater proportion of the aircrafts fuel during flight.

Flight Class	Emissions per km (including radiative forcing)	Percentage emissions compared to Economy Class
Economy	0.14981	100%
Premium Economy	0.2397	160%
Business Class	0.43446	290%
First Class	0.59925	400%

Table.2. Average carbon emission per kilometre travelled for various class of air travel, provided by the Department for Environment, Food and Rural Affairs (DEFRA), 2019

### Our ambitions

The University recently set out its Strategy to 2030. Within the strategy, it notes that we are “a world-leading research-intensive University, here to address tomorrow’s greatest challenges”. Climate change is clearly one of these challenges. We acknowledge the need to research solutions to mitigating and adapting to the ever present impacts of climate change. Without this research, there will be significant negative impact on those most affected by climate change. Additionally, one of the main themes within the Strategy is “Social and Civic Responsibility”. The University has committed to “make the world a better place, so we will ensure that our actions and activities deliver positive change locally, regionally and globally.”

With this in mind, it is essential that, alongside supporting world class research into climate change, the University also adapts processes to reduce its own carbon emissions. We must lead by example, showing that world class research can continue whilst minimising our own travel emissions.

	Scope 1	Scope 2	Scope 3
Description	Direct emissions from activities owned or controlled by the University	Indirect emissions from electricity consumed by the University that we do not own or control	Other indirect emissions that occur upstream and downstream, associated with the University’s activities
Included in target	University controlled energy (gas used for the CHP and gas boilers)  University vehicles and the fuel they use	Electricity (excluding University owned electricity generation)	Waste  Water  Business travel
Measured but not used in target setting			Staff/student commuting  Procurement (particularly capital goods and ICT)

Table 3. Definitions of the three carbon emission scopes, as defined by the University in the Zero by 2040 Climate Strategy.

## Travel and Aviation Working Group - Final Report

Draft 1.2 - April 2020

### University Climate Change Strategy

With the release of the University's Zero by 2040 Climate Strategy in 2016, we have set out a pathway to achieving a goal of net zero carbon emissions by 2040. This whole-institution approach focuses on removing emissions from Scope 1, 2, and 3 sources. Progress has been made in reducing emissions from Scope 1 and 2 through a range of actions including in the development and redevelopment of University buildings; investing in electric vehicles for our fleet; and initiating energy reduction behaviour change campaigns. Emissions from Business Travel are included within the boundary of Scope 3 emissions (see **Error! Reference source not found.**).

At present, Business Travel - which accounts for nearly all Scope 3 emissions at the University accounts for roughly 15% of the University's current carbon emissions (*Figure 2*). As other emissions sources are reduced, it is estimated that the proportion of University emissions from Business Travel will increase to 20-25% of the University's total emissions.

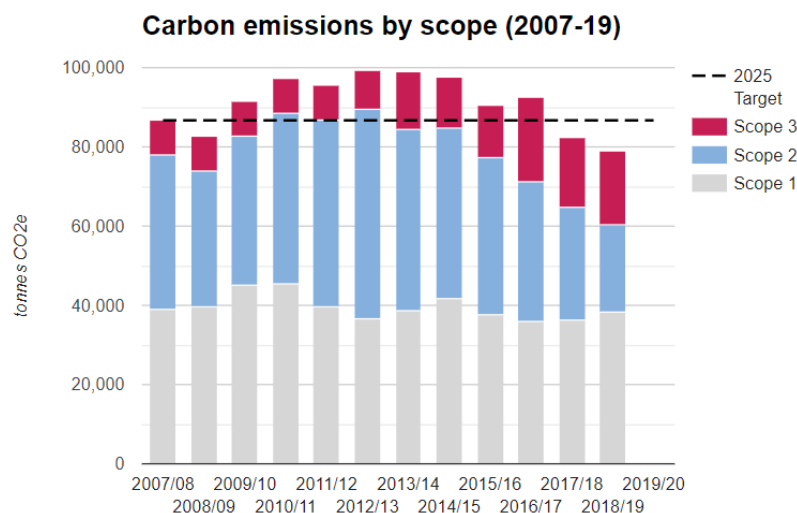


Figure 2. Actual carbon emissions by scope for the University of Edinburgh from 2007-08 to 2018-19. The vast majority of Scope 3 emissions are attributed to business travel.

### Work of SRS to date

The Department of Social Responsibility and Sustainability (SRS) have been working to address University Business Travel since the launch of Zero by 2040 Climate Strategy in 2016. This work has completed the following stages:

#### 1. Understanding our travel patterns

Initially data on University business travel was difficult to assess as it was gathered from a multitude of suppliers, with each supplier providing various inconsistencies across their data sets. As such SRS developed an in-house reporting tool that would better consolidate these data sets. This report

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

includes all travel paid for by the University - by Staff and Students. The Business Travel Report is the first of its kind within higher education, and has helped to better explore, understand, and report on, business travel data at the University.

In order to increase transparency on this matter, the report is publicly available online ([edin.ac/business-travel-report](http://edin.ac/business-travel-report)), with the data grouped at School / Department level in order to preserve anonymity of individual travellers.

From this report it has become clear that business travel emissions are growing rapidly. Since 2012, there has been an average annual increase of 15%. This is because staff and students are travelling more frequently, and the average distance of these journeys is increasing. The University population has increased over this time also, and so increases in number of journeys would not be unexpected. However, further analysis of the data shows that business travel carbon emissions and costs have increased by 43% per staff and student since 2012 (*Figure 3*).

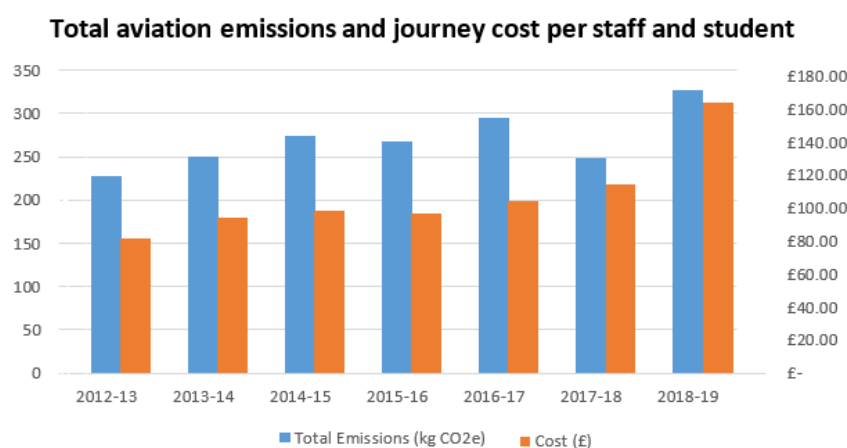


Figure 3. Graph showing the growth of carbon emissions from aviation (blue) and total journey cost (GBP) (orange) since 2012, per University staff (FTE) and student.

### 2. Understanding travellers' behaviour

The Business Travel Report provides us with a detailed understanding of where University travel is taking place. However, it does not tell us why this travel is taking place, or what factors affect the decision to travel. As such SRS have undertaken quantitative and qualitative research to better understand the underlying behaviours as follows:

#### ISM Model

In 2017, a group session with staff across the University was conducted to develop an Individual, Social, and Material (ISM) model for business travel. The ISM model was launched by the Scottish Government in 2013 as a tool for designing effective policy interventions, with a focus on sustainability challenges. From the ISM model developed by SRS, a number of barriers emerged at each level. These are summarised below (Table 4), with a detailed ISM model available in Appendix 1.

## Travel and Aviation Working Group - Final Report

Draft 1.2 - April 2020

	Barrier
Individual	<p>Includes factors held by the individual that affect choices and behaviours he or she undertakes. These include an individual's values, attitudes and skills, as well as calculations they make before acting, including personal evaluations of costs and benefits.</p> <p>e.g.</p> <ul style="list-style-type: none"> <li>Flying still considered a 'perk' by some travellers</li> <li>Flying is perceived to be cheaper, quicker, and more flexible than alternatives</li> <li>Staff may not be in a position to suggest alternative modes of transport</li> </ul>
Social	<p>Includes factors beyond individual in social realm yet shape their behaviours. These include understandings shared amongst groups, social norms and meanings attached to particular activities and people's networks and relationships, and the institutions that influence how groups of individuals behave.</p> <p>e.g.</p> <ul style="list-style-type: none"> <li>Certain traditions within Academia necessitate face-to-face meetings. For example PhD vivas with external examiners, attending conferences to meet potential collaborators</li> <li>London is often used as a "central" meeting point</li> </ul>
Material	<p>Includes factors 'out there' in the wider world, which both constrain and shape behaviour. These include existing 'hard' infrastructures, technologies and regulations, as well as 'soft' influences such as time and schedules of everyday life.</p> <p>e.g.</p> <ul style="list-style-type: none"> <li>Booking rail is more complex than booking air travel through the Travel Management Company (TMC)</li> <li>Certain funding streams require proof of collaboration and this is often evidenced through face-to-face meetings</li> <li>Train schedules make it difficult to reach certain destinations in time for early morning meetings</li> <li>Belief that VC facilities are unreliable, and that desk-based systems are not suitable for meetings, especially with increased designation of open plan offices</li> </ul>

Table 4. Overview of ISM model developed for University Business travel by the Department of Social Responsibility and Sustainability in 2017.

### Focus Groups

In 2017 and 2018 a number of more detailed focus groups were run with staff and students across the University. A total of 40 participants took part in these focus groups from a range of academic schools and professional departments. These focus groups consolidated the initial findings from the ISM model, whilst bringing about additional factors not considered within the scope of this project previously including the negative impact of the current need to travel for business within the Higher Education sector on a number of equality, diversity and inclusion issues.

### Quantitative Survey

In 2019, a survey was distributed to all schools within the College of Science and Engineering (CSE) to examine whether the findings of the focus groups were consistent within the larger University population. This survey is part of an ongoing project to map sustainability practices across the

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

University, and the same survey will be distributed to other Colleges and Professional Service Groups at the University as resources allow.

A total of 400 responses were gathered through the survey from all seven schools within CSE. Due to the sampling method, results from this survey cannot be used as a representative sample of the College. However, results from the survey showed that the findings from the focus groups were consistent across a larger University population.

#### *3. Attempting behaviour change*

Following on from the research outlined above, a number of behavioural change approaches were considered for piloting within the University. However, due to a number of prohibiting factors, specifically additional financial and resourcing costs - these pilots were not implemented at this time.

#### *Results*

From this series of research projects, it has become apparent that there is a feeling across University staff and students that travel is essential for an individual to progress within academia. There was an understanding that this level of travel was unsustainable on an environmental level, as well as on a personal level.

Many respondents felt that the perception of necessary business travel at the University has to change in order to reduce carbon emissions; reduce costs; remove barriers for equality, diversity, and inclusion; and improve the health and wellbeing of travellers and their families. However it was acknowledged that the perceived necessity of business travel is a factor not only for the University of Edinburgh, but for the Higher Education sector more generally.

#### *Movement to address business travel within the Higher Education sector*

Following the research to understand traveller behaviours at the University, discussions started to take place between the University of Edinburgh and other institutions within the UK and internationally. Within these discussions it became apparent that a number of other institutions were starting to address business travel. There was a significant range of progress on the topic within these institutions, with some institutions just starting to understand the scale of emissions from their business travel, while other institutions were attempting to pilot a range of actions. As such, with the support of several Swiss institutions, the University of Edinburgh launched the Roundtable of Sustainable Academic Travel. This network aims to bring together global institutions in order to share knowledge and data on the topic of business travel in higher education.

As of March 2020, over 90 institutions from 20 countries are registered members to the Roundtable.

This network has enabled The University of Edinburgh to share its work, initiate discussions with wider partners such as research funders, and to learn from the best practice of others in order to progress our own project.

#### *Recent events: The impact of coronavirus COVID 19 on travel*

The recent Coronavirus COVID-19 global pandemic has drastically altered global travel patterns. Air travel for tourism and business has all but ceased. At the University, all non-essential international travel was banned from 13 March 2020, for an initial duration of two months. The long term impacts of such a sudden change on many sectors, including the Further and Higher Education sector, are yet

**Travel and Aviation Working Group - Final Report**

**Draft 1.2 - April 2020**

to be known. As such, it is important to note that decisions related to reducing the carbon emissions associated to business travel at the University will likely be impacted by the COVID-19 outbreak.

It is unclear how business travel, or travel more general, will look in the short and long term. Carbon modelling of our travel is currently underway to better understand the long term impacts of COVID-19 outbreak on University travel behaviours and associated carbon emissions, with results provided alongside the Financial Modelling in Section 4. However, regardless of the impact of COVID-19, the University is committed to reducing all carbon emissions, and so long term business travel emissions must be addressed.

## Travel and Aviation Working Group - Final Report

Draft 1.2 - April 2020

### Section 3: TAWG

#### Section overview

This section outlines the work of the Travel and Aviation Working Group between November 2019 and June 2020, and includes sections on the group's remit and scope, membership, vision, and action themes to achieve this vision.

#### Remit and scope of the TAWG group

The Travel and Aviation Working Group (TAWG) was established in October 2019 as one of the actions the University should take to continue responding to the climate crisis. The Working Group's role remit was to:

*"support the delivery of the University's ambition to be a net zero University by 2040 by undertaking a programme of work to secure a University-wide 'climate conscious' approach to travel, including aviation."*

#### Membership of TAWG

Membership for TAWG was drawn from the wider University population is shown in Table 5 below. It is acknowledged by TAWG that there was not clear representative for Early Career Researchers. Attempt were made to bring in additional members to represent this group. However, due to the short timescale of this working group, it was not possible to bring in appropriate representatives in this instance.

Name	Role at the University	Representing
<b>Professor Sandy Tudhope (chair)</b>	University lead on Climate Responsibility and Sustainability	
<b>Professor Harry Campbell</b>	Personal Chair of Genetic Epidemiology & Public Health	CMVM
<b>Dr. Richard Anderson</b>	Head of the Edinburgh School of Architecture and Landscape Architecture	CAHSS
<b>Dr. Bruce Nelson</b>	College Registrar	CSE
<b>Kevin Ashley</b>	Director of Digital Curation Centre	ISG
<b>Chris Cox</b>	Vice Principal Philanthropy and Advancement	USG
<b>Professor James Smith</b>	Vice-Principal International, Edinburgh Global	Edinburgh Global
<b>Dave Gorman</b>	Director of Social Responsibility and Sustainability	SRS
<b>Rachael Robertson</b>	Deputy Director of Finance	Finance
<b>Gavin Donoghue</b>	Deputy Director, Stakeholder Relations, Communication and Marketing	CAM
<b>Grant Ferguson</b>	Director of Estates Operations	Estates Department
<b>Rosheen Wallace</b>	Vice President Community	EUSA
<b>Siôn Pickering</b>	SRS Project Coordinator	

Table 5. Membership overview of the Travel and Aviation Working Group (TAWG) as of April 2020.

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

#### TAWG meetings / process

A total of six meetings took place between November 2019 and June 2020. An overview of these is provided in Table 6.

Phase	Phase Overview	Timescale
1	Start-up	Meetings 1 & 2 (November / December 2019)
2	Options Development, analysis, & evaluation	Meetings 2 – 4 (December 2019 to April 2020)
3	Consultation	March 2020 – April 2020
4	Finalising recommendations, report production and communications messages	Meetings 4 & 5 (May / June 2020)

Table 6. Outline of TAWG meeting process from November 2019 to June 2020.

A full list of papers and minutes from these meetings is available at:

<https://www.ed.ac.uk/sustainability/governance-publications-reports/committees/travel-and-aviation-working-group>

A detailed account of the Consultation and the Final Recommendations are provided in Sections 6 and 7 respectively.

#### TAWG vision

Within these meetings, a vision for the working group was set out as follows:

*“By 2025 all travel undertaken by University staff and students will be made in a ‘climate conscious’ manner and consistent with the University’s overall climate change strategy.”*

Further details of the climate conscious travel approach is outlined below.

#### Climate Conscious Travel

This section outlines the six themes that make up Climate Conscious Travel, as defined by TAWG.

##### Information:

Staff and students, administrators and managers will have the right information at the point of planning and booking to ensure they are fully aware of the climate consequences of their travel, and that the alternatives open to them are clear, effective and manageable. Managers and leaders will have sufficient management information on the drivers, costs and carbon impacts of travel to track progress in delivering the vision.

##### Visible leadership:

The University will provide clear and transparent leadership on managing the impacts of air travel. Senior leaders will lead from the top by exploring alternatives and encouraging behaviour change across the University.

##### Policies, required contributions and incentives:

The University will design its policies to support low carbon climate conscious travel across all of its activities, includes the use of required contributions where appropriate to incentivise alternative, and



## **Travel and Aviation Working Group - Final Report**

### **Draft 1.2 - April 2020**

subsidies for more climate friendly options. All travel that cannot be avoided will be offset via high quality carbon sequestration delivered directly by the University.

#### *UK travel:*

By 2025 the vast majority of UK travel will be by public transport, and air travel will not be used, with a presumption against flights, unless by exception using rules that are clear, fair and that respect equality and diversity.

#### *Partnership and Collaboration:*

The University will work with its travel providers, fellow Universities, funders and travel companies to innovate in finding ways to reduce the carbon impact of travel, whilst maintaining the advantages that travel can provide for research, teaching, business development and global connectiveness.

#### *Long-term change:*

By 2025 the University is committed to researching and publishing information on the links between academic excellence and travel, student experience and travel, and in exploring whether and how our internal processes can adapt to a carbon constrained world.

## Section 4: Financial Model

### Section Overview

Section 4 outlines the financial model developed by the University's Finance Department, utilising data from the Department of Social Responsibility and Sustainability, in order to understand the financial implications of implementing a required contribution as a mechanism for reducing air travel at the University. Two scenarios are tested using the same base criteria, with findings and conclusions gathered on the financial outcomes of each scenario. It is important to note that this model does not look at the feasibility of implementing these required contributions within the context of the University, especially in light of the effects of COVID-19 outbreak.

### Purpose of the Financial Model

In order to better understand the impact that introducing a required contribution would have on the finances of the University, as well as to individual travellers and University Schools and Departments, a financial model was developed by the University's Finance Department. This model was designed to test a range of scenarios based on current growth of aviation at the University.

### Criteria and Scenarios

#### Criteria

Flight growth was projected based on the average for each flight type (Domestic, Short Haul, Long Haul) between 2012 and 2019. The average cost for each flight type was based on relevant journeys for each flight type from 2018-19 (see Table 7). Modelling data can be seen in Appendix 2 and 3.

Flight Type	Description	Average year-on-year growth (2012 – 19)	Average Cost (2019)
Domestic Flights	Flights where origin and destination are within the UK	5.2%	£180.36
Short Haul Flights	Flights with a one-way flight distance of under 3700km, where either the origin or destination are not within the UK	13.6%	£205.85
Long Haul Flights	Flights with a one-way flight distance of over 3700km, where either the origin or destination are not within the UK.	19.8%	£429.59

Table 7. Description of flight type, as defined by the UK Government (Department for Environment, Food and Rural Affairs, 2019) with average growth and cost for each flight type based on University travel

#### Scenarios

Two scenarios where testing using the financial model, a set percentage of journey cost, and a tiered cost model. These are described below.

##### 1. A set percentage of journey cost contribution model:

In this scenario, each air journey would be subject to an additional contribution set at a percentage of the journey cost (set between 10% and 15%). The final percentage would be determined based on feedback received from the wider University population.

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

In this scenario, a required contribution would raise between £0.7m and £1.1m per year from 2020-21 onwards. Details can be seen in Appendix 2 and 3.

Concerns with this scenario are that it may lead travellers to focus on selecting the lowest cost option for travel rather than the least carbon intensive. In turn this is likely to increase journey time (e.g. by taking less direct flights), and decrease traveller comfort. In addition, less direct flights are likely to increase the average carbon emissions per journey at the University.

#### 2. A tiered cost contribution model:

In this scenario, each flight type would be subject to a standardised required contribution amount. These amounts are weighted to discourage journeys which could be undertaken by alternative means, whilst also continuing to signal that all flight types are considered within scope of the Climate Conscious Travel initiative (Table 8).

Flight Type	Rate of Required Contribution	Percentage equivalent (to average cost of journey type)
Domestic Flight	£25	13.86%
Short Haul flights	£35	17.00%
Long Haul flights	£50	11.64%

Table 8. Example tiered cost required contribution model for air travel at the University.

In this scenario, a required contribution would raise between £0.8m and £1.1m per year from 2020-21 onwards. Details can be seen in Appendix 3.

Concerns with this scenario are that the rate of the required contribution may need to be updated frequently as the aviation market changes in order to stay within a reasonable boundary for affecting behaviours. The current rates are for guidance purposes and should be adapted based on feedback from the wider University population. However, if these are to stay as shown above, these may not discourage domestic flights to the same extent as short haul flights.

#### Limitations

Due to limitations within the original travel data, it was not possible to test a scenario where a differentiated rate would be applicable, for example allowing early career researchers one flight per year where the required contribution was not applicable. It is also not possible to gather from the data how many flights would continue under additional exceptions such as for disability or health related reasons.

Projected travel costs were based on average journey costs for air travel in the 2018-19 financial year. It is possible that actual costs will increase or decrease depending on a number of market factors out with the control of the University, for example the buying power of the University's contracted travel management company; the cost of aviation fuel tax etc.; the impact of the Coronavirus COVID-19 outbreak on the viability of the airline industry. The financial model does not take this variation into account.

In addition, these scenarios are based on a continued growth in business travel journeys based on the average growth from 2012 - 2019 (as set out in Table 7 above). It is believed that current University air travel is undertaken by a relatively small pool of staff and students, however the current data collected

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

does not make it possible to estimate the size of this traveller pool. As the University is not expecting to grow significantly in the next 10 years, it is unlikely that a significant number of existing travellers will increase their travel at the rates indicated in *Table 7*. The current financial model assumes that the number of business travel journeys increases at the rates set out in *Table 7*, however this may not be feasible should the number of unique travellers also not increase.

As such the Finance Department considered the growth in spend on travel rather than the number of journeys. SRS used this methodology to model additional derivatives linked to the cost. From this work, under the "Business As Usual" (BAU) scenario, the volume of business travel keeps growing, leading to an increase in spend to ca. 1.9% of turnover (*Table 9*). This model is based on the assumptions that University turnover will be ca. £1,370m and FTE staff numbers of 11,250 in 2025.

	2018-19	2025 BAU	2025 BAU + Intervention
Cost, as approx. % of expected UoE turnover <sup>1</sup>	1.1%	1.9%	1.7%
Staff time in-transit <sup>2</sup> (rough estimation)	203,000 hrs (105,000 hrs in-air)	489,000 hrs (246,000 hrs in-air)	509,000 hrs (216,000 hrs in-air)
Approx. FTE staff in-transit <sup>3</sup>	63 FTE	159 FTE	140 FTE
% of staff time	0.65%	1.42%	1.25%
In-transit staff cost at £35k pa salary.	£2.2M	£5.6m	£4.9m

*Table 9. Other derivatives of business travel modelling; prepared by SRS based on the spend-based methodology of the Finance Department. Assumptions within this model: <sup>1</sup>Turnover of ca. £1,370m in 2025; <sup>2</sup> based on average plane speed of 900km/h (560mph) and train speeds of 100km/h (62mph); <sup>3</sup>Number of FTE staff of 11,250 in 2025.*

### Findings

The financial model suggests that, based on the growth in University business travel from 2012 to 2019, a required contribution would raise a similar amount (between £0.7m and £1.1m) regardless of the chosen scenario implemented.

Following discussions with the University's Finance Department and Key Travel, it is apparent that additional procedures would need to be developed in order to enable the capture and processing of a required contribution. This is not to say that implementing such procedures would not be feasible within the current University financial structure. Further discussion of this mechanisms are provided in Section 7 of this report (Final Proposals).

### Next steps

The findings of the financial model lead to the conclusion that, where the required contribution scenario is viable, these scenarios should be taken forward to consultation with the wider University population. In doing so, we would gather a better understanding of which scenario would produce the greatest change to traveller behaviours, in line with the Climate Conscious Travel approach and Zero by 2040 Climate Strategy.

Although unable to be tested in this Financial Model, it is widely agreed that the purpose of this required contribution is not to hamper the academic progress of individuals. As such, the scenarios

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

put forward should include a differentiated model which gives early career researchers a certain allowance of flights before a required contribution is then introduced for these individuals.

Discussions should be initiated with the Finance Department and Travel Suppliers (in particular the University's contracted travel management company – Key Travel) to establish the most suitable mechanisms for delivering each of these scenarios.

#### The impact of COVID-19 on University travel patterns

As noted earlier, COVID-19 has led to a significant reduction in travel at the University and across wider society since early 2020. Modelling of expected travel due to this outbreak is challenging as there are a number of internal and external factors to consider, many of which include a high degree of uncertainty at this time. The Department of Social Responsibility and Sustainability have started to focus on these factors to better understand the long-term travel patterns at the University. These factors are outlined below.

	Estimated University Travel	Aviation industry
2019-20	Travel emissions will be roughly 50% lower in 2019-20 compared to previous year	Reduction in investment in more economic planes. Grounding of all planes, followed by grounding of larger planes only
2020-22	Decrease in air travel emissions of between 30% and 50% compared to 2018-19.	Reduction in average passenger numbers due to uncertainty leads to increased average CO2e per passenger / km  Reduction in average passenger numbers due to social distance regulations leads to increased average CO2e per passenger / km (potentially up to 33% increase if middle seats not allocated).  Cost of air travel increases as passenger numbers decrease.
2022-25	Potential recovery of air travel to 2018-19 levels	Growth in flights to 2019 levels by 2025
2025-30	Small growth in air travel (estimated at maximum of 5%)	Grounding of older, less economic, planes leads to increased overall fleet efficiency.
2030 onwards	Strong growth in air travel (possibly as high as 15% as seen between 2012-19).	

A number of additional factors remain unclear including: what behavioural changes the sudden immersion in virtual tools will have on future travel; what restrictions will be put in place on travellers by governments including within the UK, at the end destination, and at countries where flight connections take place.

**Commented [PS2]:** Awaiting further work on modelling potential travel post COVID-19.

**Commented [PS3]:** Add in more possible factors once further work on modelling potential travel post COVID-19 has been completed.

## Section 5: Equality, Diversity, and Inclusion

### Section Overview

#### Initial process

The potential of this project to impact on those with protected characteristics was acknowledged early in the development of TAWG, and was based on findings from the SRS business travel project. In addition to mitigating any negative effects on individuals, the potential benefits to introducing Climate Conscious Travel within the University was discussed for these groups, as well as for the wider University population.

This section focuses on the specific protected characteristics definitions as set out in the UK Government Equality Act (2010) (Figure 4).

In order to ensure that all proposals put forward in regard to business travel at the University are fair within the bounds of equality, diversity, and inclusion, the topic was raised throughout the TAWG process, and was directly addressed within the Consultation. In addition, Equality, Diversity and Inclusion Committees and Networks across the University were directly invited to take part in the consultation.

Age	Marriage and civil partnership	Religion or belief
Disability	Pregnancy and maternity	Sex
Gender reassignment	Race	Sexual orientation

Figure 4. The nine protected characteristics as defined within the UK Government Equality Act (2010)

#### Issues Raised

Initial issues raised in regards to Equality, Diversity, and Inclusion within the SRS business travel project, by the Travel and Aviation Working Group, and by staff and students through the consultation are outlined below.

- Mandating that travellers take specific modes of transport that may be incompatible with their situation (e.g. banning air travel within the UK may not be possible for those with disabilities, those with caring responsibilities, or where personal safety is a concern when traveling alone)
- Requesting that travellers extend travel to increase value / productivity of travel carbon (e.g. staying away from home overnight or for multiple days may not be possible for those with disabilities or caring responsibilities).
- Video Collaboration Tools may not be suitable for those with audio or visual impairments.
- Potential for animosity should individuals be seen to be getting favourable treatment when booking travel.
- Financial restrictions on travel (in form of restricted contribution or subsidies) may disadvantage:
  1. those whose travel is deemed less of a priority (either by the traveller themselves, or their line managers)
  2. those funded by funding bodies which will allow for funds to be used towards Climate Conscious Travel, compared to those whose funding bodies who will not.

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

3. Early Career Researchers who may not be invited to events as frequently as their senior colleagues, or who's funding is more limited.
4. Those from low-income backgrounds who may not be able to subsidise travel
5. Those whose research is focused on:
  - a. Destinations that are further away and so, when travel is required, this will be long haul and will incur greater contributions.
  - b. Low- or Middle-Income Countries (LMIC) where alternative communication tools may not be available.

#### Possible Positives of Climate Conscious Travel

- Reduced requirement to travel within promotion criteria may lead to greater accessibility / promotion of individuals from protected characteristics groups for whom travel can be very difficult or off-putting.
- Travelling less frequently will put less pressure on those from various protected characteristic groups (e.g. due to childcare, inability to travel to certain locations due to sexual orientation or race).
- A reduction in travel could benefit those with disabilities that make it difficult for them to participate in large meetings (e.g. hearing/sight impairments)
- Those who want to travel less or undertake more climate conscious travel

#### Equality Impact Assessment

An Equality Impact Assessment (EIA) was completed in line with guidance from the University's Equality and Diversity Team. The Full EIA is included as a separate document and is focused on the proposals being put forward to the University Executive rather than the any final policy documentation required to enact these proposals.

**Commented [PS4]:** To be added once complete. Currently held as separate document

## Section 6 – Consultation

### Section Overview

This section describes the consultation process put in place to gather responses from the wider University population on the proposals being put forward to support Climate Conscious Travel. Also included are findings from this consultation across the four channels: Online Survey; Townhall Meetings; Direct Email Responses; Responses from Key Stakeholders.

### Sample

The consultation was aimed to gather responses from all University stakeholders with a particular focus on:

- those that travel on behalf of the University, including academic staff, professional staff, and students
- those with management or leadership roles such as Heads of School or Department Directors
- those with knowledge of equality, diversity, and inclusion issues at the University, including established committees and networks.

### Design

The consultation document was drafted by the Department of Social Responsibility and Sustainability, in discussion with the Travel and Aviation Working Group. A full copy of the consultation wording is available in Appendix 4. Once finalised, this document was adapted for web, and available to University staff and students online at: [edin.ac/aviation](http://edin.ac/aviation). Due to the sensitive nature of some of this work, this webpage was not accessible to anyone outwith the University of Edinburgh.

Feedback on the consultation documentation was planned to be collected through four channels:

1. Online Survey, open to all staff (and students at a later date)
2. Townhall Meetings open to all staff and students
3. Direct email responses to a dedicated email mailbox
4. Focus groups with Key Stakeholders

### 1. Online Survey

A survey was drafted by the Travel and Aviation Working Group and refined by the University Communication and Marketing Department. Once the final survey draft was agreed by TAWG, the implementation and analysis of the survey was managed by the Market Insight team within CAM using the online tool SurveyMonkey. This survey was open from the 6 March, 2020 to the 30 April, 2020.

See appendix 5 for a copy of the consultation survey.

Upon completion of the consultation, the preliminary results were analysed by CAM, and presented to TAWG in early May 2020, with full results provided as a report in late May 2020, prior to the submission of proposals to the University Executive in June 2020.

See [appendix 6](#) for a copy of the consultation report provided by CAM in May, 2020.

**Commented [PS5]:** Appendix not complete yet. Awaiting final consultation report from CAM.



## **Travel and Aviation Working Group - Final Report**

### **Draft 1.2 - April 2020**

#### **2. Townhall Meetings open to all staff and students**

In addition to an online survey, responses were sought from stakeholders via two townhall meetings. Initially these were planned to take place in-person from mid- to late- March. However, due to the COVID-19 outbreak, these were adapted at short notice to the following virtual meetings:

- 23 March, 2020. Townhall meeting hosted by Dave Gorman, Director of the Department of Social Responsibility and Sustainability.
- 27 March, 2020. Townhall meeting hosted by Sandy Tudhope, University lead on Climate Responsibility and Sustainability.

Recordings from these townhall sessions were added to the consultation webpage noted above shortly after the townhall sessions completed. Both sessions followed the same format, starting with an introduction presentation by the session host, followed by a question and answer session with the audience, with each session lasting roughly one hour. Questions from these sessions have been analysed in the findings section below.

#### **3. Direct email responses**

A direct email address was provided for staff and students that wished to provide additional responses to the consultation. This email was monitored by the Department of Social Responsibility and Sustainability. Each email received a direct response from SRS. Relevant questions from these emails are analysed below.

#### **4. Focus groups with Key Stakeholders**

Additional feedback was sought from the following key stakeholder groups:

- Heads of School / Departmental Directors
- School / Department Management Groups
- Equality, Diversity, and Inclusion Groups
- Early Career Researchers

Due to the COVID-19 outbreak, it was not possible to organise focus groups with key stakeholders. As such, Heads of School / Departmental Directors, as well as School / Department Management Groups were invited, by direct email sent on behalf of Dave Gorman, Director of SRS, to submit questions via an online form. Responses to these questions would be provided direct to the individuals. Questions with wider relevance were to be posted, with responses, online alongside the Consultation Documentation.

Respondents were given one week to provide questions, with responses due to be returned within two weeks of the end of the consultation.

Equality, Diversity, and Inclusion committees across the University were contacted directly, by email sent on behalf of SRS, to raise awareness of, and participation in, the consultation.

Early Career Researchers (ECR) were not targeted directly, however each School Management Group consists of a relevant position to ECR. In addition, some Schools forwarded details of the consultation to relevant ECR, though this was not asked for within the emails to Heads of Schools.

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

#### Communications

Communication of the consultation was coordinated by SRS. The following steps were taken to ensure a wide range of views were collected through the consultation.

- All staff email on behalf of the Travel and Aviation Working Group announcing the launch of the consultation (full wording can be seen in appendix 7A), sent out in early March. Follow up email (sent on behalf of TAWG) was distributed to members of staff that had not opened the initial email on 24 April. This follow up email was distributed to 7,829 members of staff. Wording of this email can be seen in Appendix 7C.
- All student email was distributed in error prior to the consultation receiving ethical approval for distribution to Students.
- Targeted emails sent on behalf of TAWG to Heads of Schools and Departments; Equality, Diversity, and Inclusion committees as noted above. Wording of this email can be seen in Appendix 7B.
- Direct contact with students via the Edinburgh University Students Association communication channels.
- Direct contact with SRS networks through dedicated emails, newsletters, and social media posts

#### Findings

##### 1. Online Survey

- Insert short summary of findings from online survey
- Add in full report as appendix

**Commented [PS6]:** Awaiting results from the online consultation survey

##### 2, 3, & 4 Townhall meetings; direct email responses; and responses from management groups.

There were a number of similarities between the questions and comments received through the townhall meetings, direct email responses, and the responses from University management groups. As such, these have been analysed together.

A total of eight direct emails received included questions or suggestions related to the proposals. In addition, a total of nine responses were received from seven different University management groups: Health and Safety, Social and Political Science (two responses), College of Medicine and Veterinary Medicine (two responses), School of Economics, Edinburgh Global, Finance Department, and the Business School.

There was a total of 16 attendees across the two townhall events. This is significantly lower turnout than anticipated, and is likely to be low due to the timings in relation to the COVID-19 outbreak. Due to the online systems used to host these sessions, it is not possible to establish the roles of attendees, however it is presumed that the majority of attendees were members of staff at the University. Both townhall meetings were recorded and placed onto the Aviation Consultation website for additional viewing. A total of 24 views of these videos took place up to the end of the consultation period on April 30 2020.

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

Questions and comments raised from these channels focused on the following themes:

General Comments	
<b>Carbon emissions should not be used as an excuse to cut budgets</b>	
<b>Travel within academia</b>	<ul style="list-style-type: none"> <li>The cultural aspect of travel within academia</li> <li>University business travel is an important part of carrying out the university's mission &amp; should not be hindered unnecessarily.</li> <li>Reducing UoE travel will not necessarily reduce carbon emissions for many projects e.g. multi-University research projects</li> </ul>
<b>Action regarding alternative, non-aviation carbon reduction</b>	<ul style="list-style-type: none"> <li>Consideration for reducing use of taxis within Edinburgh</li> <li>High impact of the meat and dairy industry on carbon emissions</li> </ul>

Timing of the Consultation	
<b>The UCU strike that ran from 24 February to 13 March</b>	<ul style="list-style-type: none"> <li>Queries regarding ensuring those on strike would be reminded of this survey to ensure a fair response.</li> </ul>
<b>Coronavirus COVID-19 outbreak</b>	<ul style="list-style-type: none"> <li>The impact on consultation completion with staff and students, &amp; potential impact to proposals being put forward by TAWG.</li> <li>Query regarding what the COVID-19 situation has taught the University about flexible working (e.g. is there an increased opportunity to work remotely)?</li> </ul>

Reasons for travel, and what the University would consider a valid reason for travel.	
<b>How would travel for different purposes be weighed against each other?</b>	<ul style="list-style-type: none"> <li>What would define a "valid reason for travel", and who would manage these reasons for travel?</li> </ul>
<b>How will climate conscious travel impact on research partnerships in Low- or Middle- Income Countries?</b>	
<b>How will climate conscious travel impact on research that is focused on locations that are geographically further away e.g. South America, Asia?</b>	

## Travel and Aviation Working Group - Final Report

Draft 1.2 - April 2020

Directly related to proposals	
<b>Required contribution</b>	<ul style="list-style-type: none"> <li>• External funding may not allow for funds to be used in this manner (e.g. required contributions)</li> <li>• How will required contribution be met to ensure behaviour change takes place?</li> </ul>
<b>Incentives to increase low-carbon travel</b>	<ul style="list-style-type: none"> <li>• How would the required recuperation time following a trip be calculated?</li> <li>• How would the incentives provided to travellers be comparable to the additional cost or time associated with climate conscious travel?</li> </ul>
<b>Changes to the expenses policy</b>	<p><b>General</b></p> <ul style="list-style-type: none"> <li>• How will a change to the expenses policy impact on staff based in University offices overseas?</li> <li>• How will the University support those wishing to make climate conscious travel decisions?</li> <li>• How will the University ensure this policy is enforced uniformly?</li> </ul> <p><b>Mandating travel when not by the cheapest mode</b></p> <ul style="list-style-type: none"> <li>• Certain roles have limited resource e.g. for CPD. Increased costs would directly impact these limited funds</li> </ul> <p><b>Mandating specific mode of transport</b></p> <ul style="list-style-type: none"> <li>• Time constraints of getting to / from an external meeting in a day (e.g. in London) for those with diary pressures, family commitments</li> <li>• Ban on domestic flight appears draconian as most travel decisions are based on cost. Could lead to greater journeys taken by car</li> </ul>

New travel reduction suggestions	
<b>Required Contributions</b>	<ul style="list-style-type: none"> <li>• Could contribution be simple “a set cost for all flights” model (e.g. University of Gothenburg)</li> <li>• Could contribution be tiered by seniority (e.g. by salary grade)?</li> </ul>
<b>Individual Benefits</b>	<ul style="list-style-type: none"> <li>• Is it possible to collect airmiles as an institution rather than as individuals?</li> <li>• providing rail cards and other incentives for low-carbon travel</li> <li>• Incentives need to be “worth it”</li> <li>• Incentives would need to be uniformly introduced across all University travellers</li> </ul>

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

	<ul style="list-style-type: none"><li>• Additional time annual leave allowance for traveling by low-carbon transport (for holiday)</li></ul>
<b>Policy &amp; Processes</b>	<ul style="list-style-type: none"><li>• Enabling smoother booking process with the designated travel management company</li><li>• Carbon emissions consideration when completing ethics self-assessment</li><li>• University could pay difference between cheaper, but higher risk, advanced ticket to more flexible ticket.</li></ul>
<b>Other</b>	<ul style="list-style-type: none"><li>• Providing of comparable individual-level travel carbon data</li><li>• A carbon quota per school or department (carbon “cap and trade” system)</li></ul>

#### Technical questions relating to the SRS Business Travel project

<b>The business travel report</b>	<ul style="list-style-type: none"><li>• Does the data include student travel?</li><li>• Does the data include travel booked out with Key Travel?</li><li>• Is it possible to receive more granular data (e.g. to team level)?</li></ul>
-----------------------------------	---

## Section 7: Proposals

### Section overview

This section outlines the proposals put together by TAWG for consultation with the wider University population, as well as the final proposals put forward to the University Executive following the consultation.

### Initial Proposals

Initial proposals were set out in the consultation documentation as follows:

#### Required Contribution on all flights

Required contributions are defined as a charge on each flight made by staff or students as part of University business. Any funds raised will be spent on an agreed list of climate conscious related travel, with carbon sequestration a key component of that. Exemptions may apply – e.g. possible dispensations for early career researchers, certain funder requirements, or for reasons of equality, diversity, or inclusion. All required contributions were expected to be introduced in 2021-22.

Three required contribution options were put forward for consultation.

#### *Option 1: 10-15% required contribution, funded by individual Schools and Departments*

A required contribution is introduced on all University flights at a rate of, on average, 10-15% with the monies funded at individual School and unit level and collected via a central finance mechanism. It is estimated this required contribution could raise c. £0.7m-£1m p.a.

#### *Option 2: 10-15% required contribution, differentiated depending on nature of flight, funded by individual Schools and Departments*

A required contribution is introduced on all University flights at a rate of, on average 10-15% with the monies funded at individual School and unit level and collected via a central finance mechanism. The required contribution attempts to differentiate in some way, either by allowing for some initial travel (e.g. 'first flight is free', or by role e.g. 'first X flights free for early career researchers').

Due to the potential range of options for differentiating within this option, it is not possible to estimate the funds raised through this option.

#### *Option 3: – Flat Rates, funded by individual Schools and Departments*

A flat rate based on distance flown is introduced on all University flights. Values proposed per return flight:

- £25 domestic flights within mainland Britain
- £35 short haul (flights under 3,700 km)
- £50 for long-haul travel (flights over 3,700 km)

Monies would be funded at individual School and unit level and collected via a central finance mechanism or through the University's travel management company. It is estimated this required contribution could raise c.£0.8m-£1m p.a.

#### Flight Free Travel within mainland Britain

Within mainland Britain, many locations are accessible by train. Because of this it was proposed that there will be a presumption against flights within mainland Britain. There would be a small number of exceptions to this presumption:

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

- for travel to Islands within Great Britain (e.g. Shetland, the Isle of Man) and to Northern Ireland
- where the flight is part of an onward journey (e.g. Edinburgh to Shanghai via London Heathrow)
- for reasons of equality, diversity, or inclusion.

#### Information and awareness-raising of climate conscious travel options

This proposal put forward options for increasing staff and student awareness and information on the impact of University travel, as well as providing advice on to adapt actions to include climate-conscious travel options such as:

- Provision of detailed information on carbon emissions associated with each flight, at the point of planning/purchase, potentially with an estimate of difference between flight and train for domestic travel.
- Provision of guidance explaining differences between modes and class of travel as well as tips on reducing impacts.
- Clear advice on assessing full journey cost vs ticket cost when booking domestic travel. Whilst rail tickets are occasionally more expensive, it might reduce costs associated with getting to and from airports.
- Information specifically aimed at the major travel bookers at the University – unit admins, PAs to frequent travellers, etc., providing updates on policies and information on environmental impacts of travel.
- Improving information provision for non-travel options.
- Providing management information to heads of Schools and units.

#### Changes to the Expenses Policy

An adaptation to the expenses policy to state that consideration for financial viability, staff productivity, and carbon emissions are made when booking a journey.

Within this adaptation, there would be a presumption against flights or, where flights are unavoidable, the lowest carbon ticket is purchased and efforts are made by the traveller to increase the value of their journey (e.g. by reducing the number of travellers, linking in multiple events in a single trip, extending the trip to enable greater knowledge sharing).

#### Incentives to increase low-carbon travel

To support the change to carbon conscious travel, a number of incentives might be given to travellers, for example:

- financial support for travellers to choose low-carbon travel,
- time off in lieu for travelling by alternative means,
- upgraded tickets.

#### Promotion of Video Collaboration Tools

By promoting digital collaboration, number of journeys can be reduced, decreasing financial costs, improving staff productivity and reducing environmental costs by minimising CO<sub>2</sub> emissions.

#### Carbon Sequestration

The University has decided to undertake carbon sequestration - the process of capturing and storing atmospheric carbon dioxide - that is under its direct control rather than market-based. This means any

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

carbon sequestration will be done directly by the University, or that we will enter long-term partnerships of 50 years plus. Such a scheme can serve our broader vision when used as a research, teaching and outdoor education tool, as well as increasing natural and real capital and biodiversity for local communities.

Finalised Proposals

**Commented [PS7]:** To be confirmed by TAWG following the consultation.



## Section 8: Next Steps

[Section overview](#)

[List of next steps for the University in regards to Climate Conscious Travel](#)

**Commented [PS8]:** To be completed following the consultation & TAWG meetings.

## Travel and Aviation Working Group - Final Report

### Draft 1.2 - April 2020

## References

- Air Transport Action Group [ATAG] (2019) Facts and Figures [Online]. Available at: <https://www.atag.org/facts-figures.html> Accessed on: 14 April, 2020
- Department for Environment, Food and Rural Affairs (DEFRA) (2019). Greenhouse gas reporting: conversion factors 2019: Full Set. [Online]. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/847122/Conversion-Factors-2019-Full-set-for-advanced-users.xls](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/847122/Conversion-Factors-2019-Full-set-for-advanced-users.xls) Accessed on: 16 April, 2020
- Hannart, A., Pearl, J., Otto, F.E.L., Naveau, P. and Ghil, M., (2016). Causal counterfactual theory for the attribution of weather and climate-related events. *Bulletin of the American Meteorological Society*, 97(1), pp.99-110.
- Henderson, S.C., Wickrama, U.K., (1999). Aircraft emissions: current inventories and future scenarios. In: Penner, J.E., Lister, D.H., Griggs, D.J., Dokken, D.J., McFarland, M. (Eds.), *Aviation and the Global Atmosphere. A Special Report of IPCC Working Groups I and III*. Cambridge University Press, Cambridge, pp. 291-331.
- Kharina, A., & Rutherford, D. (2015). Fuel efficiency trends for new commercial jet aircraft: 1960 to 2014 [Online]. Available at: <https://theicct.org/publications/fuel-efficiency-trends-new-commercial-jet-aircraft-1960-2014> Accessed on: 14 April, 2020
- Kommenda, N. (2019a). How your flight emits as much CO2 as many people do in a year [Online]. Available at: <https://www.theguardian.com/environment/ng-interactive/2019/jul/19/carbon-calculator-how-taking-one-flight-emits-as-much-as-many-people-do-in-a-year> Accessed on: 14 April, 2020
- Kommenda, N. (2019b). 1% of English residents take one-fifth of overseas flights, survey shows [Online]. Available at: <https://www.theguardian.com/environment/2019/sep/25/1-of-english-residents-take-one-fifth-of-overseas-flights-survey-shows> Accessed on: 14 April, 2020
- Macintosh, A. and Wallace, L. (2009). International aviation emissions to 2025: Can emissions be stabilised without restricting demand? *Energy Policy*, 37(1), pp.264-273.
- Pfeifer, S. (2019). Electric planes: the revolution has some snags 214 [Online]. Available at: <https://www.ft.com/content/a9dc81d2-725e-11e9-bf5c-6eeb837566c5> Accessed on: 14 April, 2020
- Sullivan, A. (2020). To fly or not to fly? The environmental cost of air travel [Online]. Available at: <https://www.dw.com/en/to-fly-or-not-to-fly-the-environmental-cost-of-air-travel/a-42090155> Accessed on: 14 April, 2020
- The International Air Transport Association (IATA) (2011). Vision 2050 [Online]. Available at: <https://www.iata.org/contentassets/bccae1c5a24e43759607a5fd8f44770b/vision-2050.pdf> accessed on: 16 April, 2020
- UK Government (2020). Neutral Citation Number: [2020] EWCA Civ 214 [Online]. Available at: <https://www.judiciary.uk/wp-content/uploads/2020/02/Heathrow-judgment-on-planning-issues-27-February-2020.pdf> Accessed on: 14 April, 2020
- World Bank (2018). Air transport, passengers carried [Online]. Available at: <https://data.worldbank.org/indicator/IS.AIR.PSGR> Accessed on: 16 April, 2020
- Worldbank (2019). CO<sub>2</sub> and Greenhouse Gas Emissions [Online]. Available at: <https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions> Accessed on: 14 April, 2020

Appendices

**Commented [PS9]:** Currently provided in separate documents (x3)

## Appendix 1

Individual, Social, Material (ISM) Model of Business Travel, developed by the Department of Social Responsibility and Sustainability, 2017.

	Barrier
<b>Individual</b>	<ul style="list-style-type: none"> <li>• Flying still considered a 'perk' by some people</li> <li>• Personal air miles can be collected on business flights (in fact, rail operators such as East Coast run similar schemes, but these are not as widely known and may be less valued than air miles)</li> <li>• Flying can be / is perceived to be cheaper / flexible, both of which are valued</li> <li>• Benefits associated with frequent flyer schemes, including business class lounges and fast-track, might incentivise continued use of air travel over rail</li> <li>• Staying overnight or taking the overnight sleeper may not be acceptable (can also cost more)</li> <li>• Staff may not feel they can request time of meeting be changed to accommodate their preferred travel itinerary</li> <li>• Administrators booking travel for academic colleagues not feel comfortable suggesting alternative forms of travel</li> <li>• Travelling by air can become habitual so other modes of travel are not considered</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>• London is often used as a meeting place</li> <li>• PhD vivas with external examiners are traditionally conducted face-to-face</li> <li>• Not attending conferences risks losing out on potential collaborations and damaging academic reputation</li> <li>• Lack</li> </ul>
<b>Material</b>	<ul style="list-style-type: none"> <li>• The Travel Management Company (TMC) has a complex system for rail bookings</li> <li>• Certain funding streams require proof of collaboration and this is often evidenced through face-to-face meetings</li> <li>• It is easier to hire cars from airports (e.g. for staff travelling to rural locations)</li> <li>• Flying can be / is perceived to be quicker (although when viewed holistically, perceived differences in journey time may not always be accurate)</li> <li>• Train schedules make it difficult to reach certain destinations in time for early morning meetings</li> <li>• Flying can be / is perceived to be more flexible (depends on the ticket) Lack of Wi-Fi access on trains is a barrier to working remotely</li> <li>• Belief that VC facilities are unreliable, difficult to use University policies require the best value travel option to be selected</li> <li>• Different policies and information has led to confusion on what is permitted</li> <li>• Departments are constrained by the particular rules and regulations of their grant awarder, including travel</li> <li>• Special "charity" fares available through the TMC can make flying significantly cheaper than rail on selected journeys, whereas the TMC uses Trainline to book train tickets at market price</li> <li>• The domestic leg of a long-haul journey is often complimentary</li> <li>• Lack of awareness of desk-based VC facilities amongst some colleagues</li> <li>• The University VC webpage only covers IS managed facilities</li> <li>• some colleagues</li> <li>• VC facilities at school level can be difficult to book because they are busy</li> <li>• Open plan offices lack private areas for VC and tele-conferencing</li> </ul>

## Appendix 2

Tables showing (a) count of University flight and rail journeys from 2012-2019 and projected count in University air and rail journeys from 2019 – 2025 under a “Business as Usual” approach; (b) the estimated University travel costs (GBP) under a “Business as Usual” approach.

	Number of Journeys												
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Domestic Flights	6,169	6,810	7,100	7,279	7,443	7,579	8,186	8,611	9,059	9,529	10,024	10,545	11,092
Short Haul Flights	7,526	8,566	9,561	10,277	12,375	12,845	15,473	17,575	19,962	22,673	25,753	29,251	33,224
Long Haul Flights	3,361	3,407	4,254	4,851	5,717	6,565	8,994	10,777	12,914	15,474	18,542	22,218	26,623
Rail Travel	11,556	12,292	14,988	15,389	23,321	19,939	26,229	31,128	36,942	43,843	52,032	61,751	73,285
<b>Total</b>	<b>28,612</b>	<b>31,075</b>	<b>35,903</b>	<b>37,796</b>	<b>48,856</b>	<b>46,928</b>	<b>58,882</b>	<b>68,091</b>	<b>78,876</b>	<b>91,519</b>	<b>106,350</b>	<b>123,764</b>	<b>144,223</b>

Travel Costs (Business As Usual)	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Domestic Flights	£1,226,451	£1,476,431	£1,553,123	£1,633,799	£1,718,666	£1,807,941	£1,901,853	£2,000,644
Short Haul Flights	£2,330,456	£3,185,156	£3,617,784	£4,109,174	£4,667,308	£5,301,251	£6,021,300	£6,839,151
Long Haul Flights	£2,325,355	£3,863,707	£4,629,707	£5,547,571	£6,647,406	£7,965,289	£9,544,449	£11,436,686
Rail Travel	£912,715	£2,334,917	£2,771,044	£3,288,632	£3,902,898	£4,631,900	£5,497,068	£6,523,836
<b>Total</b>	<b>£6,794,978</b>	<b>£10,860,211</b>	<b>£12,571,658</b>	<b>£14,579,176</b>	<b>£16,936,278</b>	<b>£19,706,381</b>	<b>£22,964,671</b>	<b>£26,800,317</b>

### Appendix 3

Tables showing (a) the cost of travel through initiating flight-free travel within the UK and reducing all other flight types by 10% overall; (b) the funds raised through a tiered required contribution of £25 (Domestic flights), £35 (short haul flights), and £50 (long haul flights) whilst also initiating flight-free travel within the UK and reducing all other flight types by 10% overall; (c) the funds raised through a set percentage of cost required contribution of 10% whilst also initiating flight-free travel within the UK and reducing all other flight types by 10% overall; (d) the funds raised through a set percentage of cost required contribution of 15% whilst also initiating flight-free travel within the UK and reducing all other flight types by 10% overall.

(a)	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Domestic Flights	£155,312	£163,380	£171,867	£180,794	£190,185	£200,064
Short Haul Flights (EU)	£3,256,006	£3,698,257	£4,200,577	£4,771,126	£5,419,170	£6,155,236
Long Haul Flights	£4,166,737	£4,992,814	£5,982,665	£7,168,760	£8,590,004	£10,293,018
Rail Travel	£3,460,960	£4,014,386	£4,666,351	£5,435,010	£6,341,895	£7,412,548
<b>Total Costs</b>	<b>£11,039,015</b>	<b>£12,868,837</b>	<b>£15,021,460</b>	<b>£17,555,690</b>	<b>£20,541,255</b>	<b>£24,060,865</b>
<b>Savings compared to BAU</b>	<b>£1,532,643</b>	<b>£1,710,339</b>	<b>£1,914,818</b>	<b>£2,150,691</b>	<b>£2,423,416</b>	<b>£2,739,452</b>

(b)	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Domestic Flights	£15,531	£16,338	£17,187	£18,079	£19,019	£20,006
Short Haul Flights (EU)	£325,601	£369,826	£420,058	£477,113	£541,917	£615,524
Long Haul Flights	£416,674	£499,281	£598,267	£716,876	£859,000	£1,029,302
Rail Travel	£-	£-	£-	£-	£-	£-
<b>Total</b>	<b>£757,805</b>	<b>£885,445</b>	<b>£1,035,511</b>	<b>1,212,068</b>	<b>£1,419,936</b>	<b>£1,664,832</b>

(c)	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Domestic Flights	£21,528	£22,646	£23,823	£25,060	£26,362	£27,731
Short Haul Flights (EU)	£553,601	£628,795	£714,202	£811,209	£921,392	£1,046,542
Long Haul Flights	£484,970	£581,118	£696,327	£834,378	£999,798	£1,198,013
Rail Travel	£-	£-	£-	£-	£-	£-
<b>Total</b>	<b>£1,060,099</b>	<b>£1,232,559</b>	<b>£1,434,351</b>	<b>£1,670,647</b>	<b>£1,947,552</b>	<b>£2,272,285</b>

(d)	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Domestic Flights	£23,297	£24,507	£25,780	£27,119	£28,528	£30,010
Short Haul Flights (EU)	£488,401	£554,739	£630,087	£715,669	£812,876	£923,285
Long Haul Flights	£625,010	£748,922	£897,400	£1,075,314	£1,288,501	£1,543,953
Rail Travel	£-	£-	£-	£-	£-	£-
<b>Total</b>	<b>£1,136,708</b>	<b>£1,328,168</b>	<b>£1,553,266</b>	<b>£1,818,102</b>	<b>£2,129,904</b>	<b>£2,497,248</b>

## Appendix 7

(A) Email from CAM to staff & students, on behalf of Dave Gorman, Director, Social Responsibility and Sustainability & Professor Sandy Tudhope, University Lead on Climate Responsibility and Sustainability

**Subject:** Climate conscious travel consultation

**Date send:** 05 March, 2020

**To:** All staff

Dear colleague,

In response to the climate crisis, the University has committed to reducing its emissions and become [carbon neutral](#) by 2040. This is an integral part of the University's [Strategy 2030](#) vision to make the world a better place.

Emissions from travel – the flights, trains and taxis, among other methods – that we use to undertake University business are the third biggest and fastest growing part of the University's carbon footprint behind gas and electricity.

In order to reduce emissions from travel, a range of proposals have been developed by the University. We are writing to seek your views on these to inform a more “climate conscious” approach to travel at the University.

These proposals focus on reducing our overall travel; replacing some journeys – such as flights within mainland Britain – with other lower-carbon transport methods; and sequestering any remaining carbon emissions, e.g. by planting trees; whilst continuing to support our learning, teaching, and research.

### **Have your say on the University's approach to climate conscious travel**

The range of proposals developed to reduce carbon emissions by University travel can be found at [edin.ac/aviation](http://edin.ac/aviation). The webpage also outlines some of the potential concerns that staff and students may have around climate conscious travel.

To ensure the University chooses the best options to increase climate conscious travel, we wish to seek your views on each of the options we are proposing.

You will find more information on the proposals and a link to a consultation survey at this webpage. Please read the information provided and respond with your views by 30 April 2020.

We are particularly interested in the impact of the proposals on equality, diversity and inclusion, and so would encourage anyone with a perspective on this to respond.

### **Find out more**

The University is holding a number of “town hall” meetings for staff to find out more and have their say; you can book a place at [edin.ac/aviation](http://edin.ac/aviation).

If you require any more information please contact the University's [Department for Social Responsibility and Sustainability](#) on 0131 651 3000 or [aviation.consultation@ed.ac.uk](mailto:aviation.consultation@ed.ac.uk).

We very much look forward to your feedback.

Best wishes,

**Dave Gorman**  
**Director, Social Responsibility and Sustainability**

**Professor Sandy Tudhope**  
**University Lead on Climate Responsibility and Sustainability**

---

(B) Email from SRS to HoS and Equality, Diversity, inclusion Committees

**Subject:** Climate conscious travel consultation

**Date send:** 17 April, 2020

**To:** All heads of School & Director of Departments

Dear [name of Head of School / Department Director],

I hope you, your staff and students are well at this challenging time.

I am writing to remind you that the University's Climate Conscious Travel consultation is currently open, and ask you to flag this with your School's senior management group and staff, inviting responses.

#### **Climate Conscious Travel Consultation**

I wrote to you on Thursday 5<sup>th</sup> March 2020 notifying you that a University-wide consultation focusing on reducing carbon emissions from University business travel would launch on Friday 6 March 2020.

[Climate Conscious Travel consultation](#) (MyEd Login required)

We are seeking feedback from staff on a number of proposals for developing a climate-conscious approach to our travel. This approach focuses on reducing our overall travel; replacing some journeys - such as flights within mainland Britain – with other lower-carbon transport methods; sequestering any remaining carbon emissions, e.g. by planting trees; and increasing virtual collaboration; all whilst continuing to support our learning, teaching, and research.

Clearly, we have all had to learn some lessons quite quickly on remote working and virtual collaboration - and we are keen to capture this as part of the current consultation.

I had planned to undertake a series of focus groups with individual Schools and Departments to gather direct input into the consultation, but due to current circumstances relating to COV-19, have had to cancel these.

Instead, I'd like to ask that your School's management group consider the proposals and inform me of any questions you have using this form:



[Management Group feedback form](#)

Please submit your questions by 12 noon on Friday 24 April, and you will receive a response from myself or Professor Sandy Tudhope (University Lead on Climate Responsibility & Sustainability) within the next 2 weeks.

Finally, the consultation is open for 2 more weeks, so I ask that you encourage any staff who currently haven't submitted a response to do so.

If you require any more information, please do not hesitate to get in touch.

Yours sincerely,

**Dave Gorman,**

**Director, Department for Social Responsibility and Sustainability**

---

(C) Email from CAM to staff & students, on behalf of Dave Gorman, Director, Social Responsibility and Sustainability & Professor Sandy Tudhope, University Lead on Climate Responsibility and Sustainability to staff that had not opened original consultation email.

**Subject:** Reminder: Climate conscious travel consultation closes on 30th April

**Date send:** 24 April, 2020

**To:** All staff that had not opened original consultation email

Dear colleague,

We hope you and your families are well at this challenging time, and that you have been able to get outside in the fresh air to exercise and unwind.

We are emailing to remind you that a Climate Conscious Travel consultation is currently open at the University, and to ask that you consider responding to it if you are able to. The consultation closes next Thursday 30th April.

We first emailed you about this in early March. Despite the unprecedented changes that have occurred since then, we wish to proceed with this consultation because the current situation we find ourselves in perhaps gives us a new perspective on what it feels like to travel less and make better use of virtual tools for teaching and meetings.

### **About the Climate Conscious Travel Consultation**

In a nutshell, the consultation sets out a range of proposals that have been developed by the University to reduce emissions from business travel: the flights, trains and taxis that we use to undertake University business.

These proposals focus on reducing our overall travel by increasing virtual collaboration; replacing some journeys – such as flights within mainland Britain – with other lower-carbon transport methods; and sequestering any remaining carbon emissions, e.g. by planting trees; whilst continuing to support our learning, teaching, and research.

Emissions from business travel are the third biggest and fastest growing part of the University's carbon footprint behind gas and electricity, and must be reduced if we are to meet our target to become carbon neutral by 2040 in response to the current climate crisis. This is an integral part of the University's Strategy 2030 vision to make the world a better place.

### **Responding to the consultation**

To ensure the University chooses the best options to increase climate conscious travel, we wish to seek your views on each of the options we are proposing. If you are able to, we'd like as many staff as possible to read the proposals and respond to the consultation so as to have your say on how the University should adopt a more "climate conscious" approach to travel.

View the consultation at: [edin.ac/aviation](https://edin.ac/aviation) (MyEd login required)

We are particularly interested in the impact of the proposals on equality, diversity and inclusion, and so would encourage anyone with a perspective on this to respond.

### **Find out more**

If you require any more information please contact the University's Department for Social Responsibility and Sustainability by emailing [aviation.consultation@ed.ac.uk](mailto:aviation.consultation@ed.ac.uk).

We very much look forward to your feedback.

Best wishes,

**Dave Gorman**

**Director, Social Responsibility and Sustainability**

**Professor Sandy Tudhope**

**University Lead on Climate Responsibility and Sustainability**

# Climate conscious travel: aviation consultation

## Contents

Summary.....	1
How to answer the consultation.....	2
What happens next.....	2
1. Context.....	3
2. The University's vision for climate conscious travel.....	6
3. Possible interventions.....	7
4. Equality, Diversity, and Inclusion.....	14
Thank you .....	14

## Summary

As part of the University's response to addressing dangerous climate change, we have committed to becoming carbon neutral by eliminating avoidable greenhouse gas emissions and sequestering any unavoidable emissions. The sequestration will be through land-use mechanisms (mostly tree planting), at least in the first instance.

This is an important part of delivering on the University's Strategy 2030 vision to make the world a better place.

Air travel is an important tool for us: it allows our students and staff to travel to our campuses or to have opportunities abroad; facilitates knowledge-sharing with partnerships across the globe; and provides a means for our teaching, research and innovation to reach a global audience and have global impact.

While there are many benefits to air travel, there are also some downsides. Aircraft emit a range of greenhouse gases - such as carbon dioxide - which trap heat in the earth's atmosphere and cause the planet to warm. Flying has a large 'carbon footprint' and releases emissions at a high altitude, meaning it's one of the least environmentally-friendly ways to travel, particularly over short distances.

Our emissions from travel are the third-biggest and fastest growing area in the University's carbon footprint, behind gas and electricity; flights are responsible for 94% of our travel emissions, and carbon emissions from flights grew by 37% between 2017-18 and 2018-19. As part of our commitment to reduce our emissions and become carbon neutral by 2040, we must work to understand how travel itself can be reduced, how emissions from travel can be reduced by using less carbon-intensive forms of transport, and how to 'sequester' any emissions that cannot be reduced. This approach is called 'climate conscious travel'.

## Climate Conscious Travel

Climate conscious travel is:

- being aware of the environmental impacts of travel and choosing a method of travel that reduces these (e.g. by train rather than plane for travel within mainland Britain)
- ensuring unnecessary travel is not undertaken (e.g. sending the minimum number of individuals required to fulfil the purpose of travel)
- choosing not to travel when virtual collaboration tools will adequately fulfil the purpose of travel (e.g. for meetings where a video link would suffice)

We are determined to play our part in tackling climate change and are clear that being climate conscious travellers is essential for the future. We are not consulting on whether this approach is needed; rather we seek your views on the best means to deliver this vision.

This consultation seeks views from our University community on what actions we all should take to enable travel to be more climate-conscious, and what impact those actions might have on students and staff.

The University's [Travel and Aviation Working Group](#) is keen to hear a wide range of views during the consultation period to allow it to present informed recommendations to the [University Executive](#) on how to ensure our travel is more climate-conscious, particularly in relation to air travel.

## How to answer the consultation

This paper outlines the context in which we are consulting on air travel and presents a range of options we are considering. Please read the information it contains and then respond to the consultation at [edin.ac/aviation](http://edin.ac/aviation).

If you require the consultation in another format or would prefer to email your responses to each question, contact the University's Department for Social Responsibility and Sustainability on 0131 651 3000 or [aviation.consultation@ed.ac.uk](mailto:aviation.consultation@ed.ac.uk).

## What happens next

We will collect and analyse responses to the consultation in March and April 2020 in order to inform a recommendations report created by the [University's Travel and Aviation Working Group](#) and submitted to the [University Executive](#). The University Executive will agree actions to embed climate conscious travel at the University, with a view to implement improvements in 2020.

Consultation findings will be made available on the [Aviation Consultation webpage](#) and all respondents will be notified both when they are published and when a decision is made by the University Executive.

For any enquiries relating to the Aviation Consultation, please contact the University's Department for Social Responsibility and Sustainability on 0131 651 3000 or [aviation.consultation@ed.ac.uk](mailto:aviation.consultation@ed.ac.uk).

# 1. Context

## 1.1 Why is the University consulting on aviation?

In September 2019, we launched our new Strategic Plan for the next 10 years - [Strategy 2030](#) – which sets out our vision to make the world a better place. One of the strategic areas of focus is [Social & Civic Responsibility](#), to ensure the University's actions and activities deliver positive change locally, regionally and globally. This includes a commitment to “reduce our climate impact”, “tackle climate change” and contributing to the United Nations' [Sustainable Development Goals](#). The University's Climate Strategy – [Zero by 2040](#) – sets out the actions we will take to become a net zero carbon university by 2040 using a whole-institution approach.

In November 2019, we established a [Travel & Aviation Working Group](#), one of a range of next steps discussed by the University Executive in August 2019 on actions we should all take to continue responding to the climate emergency. The Working Group's role is to “*support the delivery of the University's ambition to be a net zero University by 2040 by undertaking a programme of work to secure a University-wide 'climate conscious' approach to travel including aviation.*”

Given the importance of flights to the University – such as for academic research, student course travel or for business purposes – we wish to consult our community on how best to implement our climate conscious vision, and what our proposed options will mean for them. This consultation will assist the Travel & Aviation Working Group in recommending the best approach to climate conscious travel at the University.

The purpose of consultation is:

- to explain the impact of aviation on the climate;
- to detail what proportion of the University's carbon emissions come from flights
- to set out the Working Group's ideas for a climate conscious approach to travel, and clear options we could all take to achieve this;
- to receive feedback on these options from our students and staff, particularly on potential concerns with implementing each of these options, such as equality, diversity and inclusion issues.

## 1.2 What are the issues with aviation and how do they affect the University?

Aircraft emit a range of greenhouse gases - such as carbon dioxide - which trap heat in the earth's atmosphere and contributes to global warming. Flying has a large 'carbon footprint', meaning it is one of the least environmentally-friendly ways to travel, particularly over short distances such as within the UK (as fuel consumption is greater during take-off and landing).

The [Intergovernmental Panel on Climate Change](#) (IPCC) released a [Special Report in October 2018](#) explaining the importance of limiting global warming to 1.5° C in order to slow global sea level rise and the diminishing of Arctic sea ice, and to reduce extreme weather events and habitat and biodiversity losses. In order to limit global warming to 1.5° C, global net human-caused emissions of carbon dioxide (CO<sub>2</sub>) would need to fall by about 45 percent from 2010 levels by 2030, reaching 'net zero' around 2050. 'Net zero' means that any remaining emissions would have to be sequestered by activities that remove CO<sub>2</sub> from the air, such as by growing trees.

We have pledged to reach net zero by 2040, 10 years earlier than the IPCC recommendations. At present, we are on track to halve our carbon emissions – relative to our expenditure – by 2025, compared with 2007/8 levels. We are also reviewing and implementing other options to help meet our 2040 target, such as increasing renewable energy generation by developing a “solar farm” at the Easter Bush campus.

At the University, emissions from travel are the third-biggest and fastest growing area in our carbon footprint behind gas and electricity usage; flights are responsible for 94% of our travel emissions, and carbon emissions from flights grew by 37% between 2017-18 and 2018-19. As part of our commitment to reduce our emissions and become carbon neutral by 2040, we must work to understand how emissions from travel can be reduced, how to sequester any emissions that cannot be reduced, and how to promote ‘climate conscious travel’ amongst students and staff.

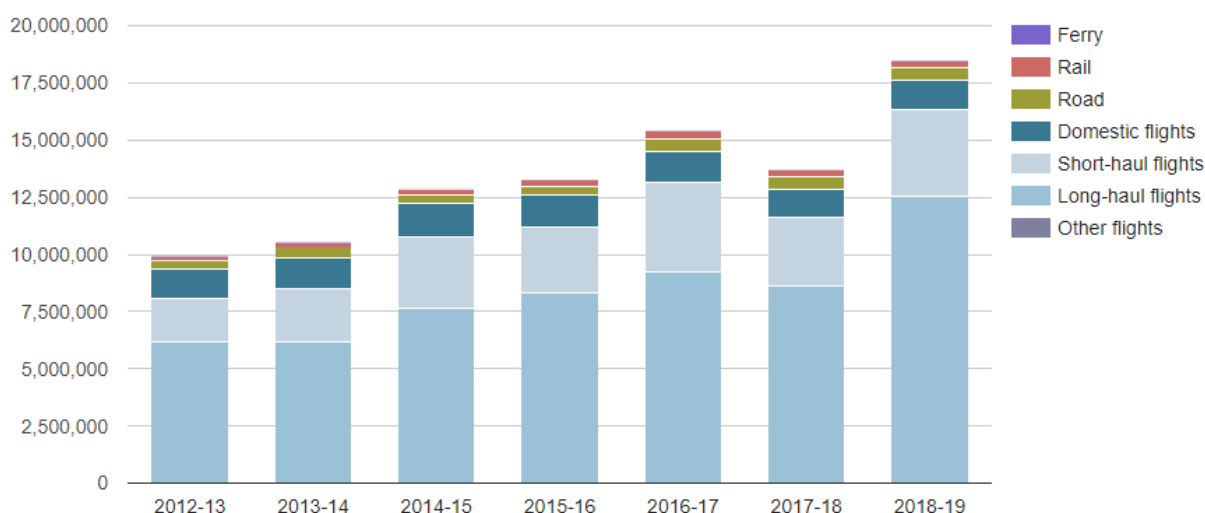


Figure 1: Carbon Emissions per Academic year (Kg CO<sub>2</sub>e)

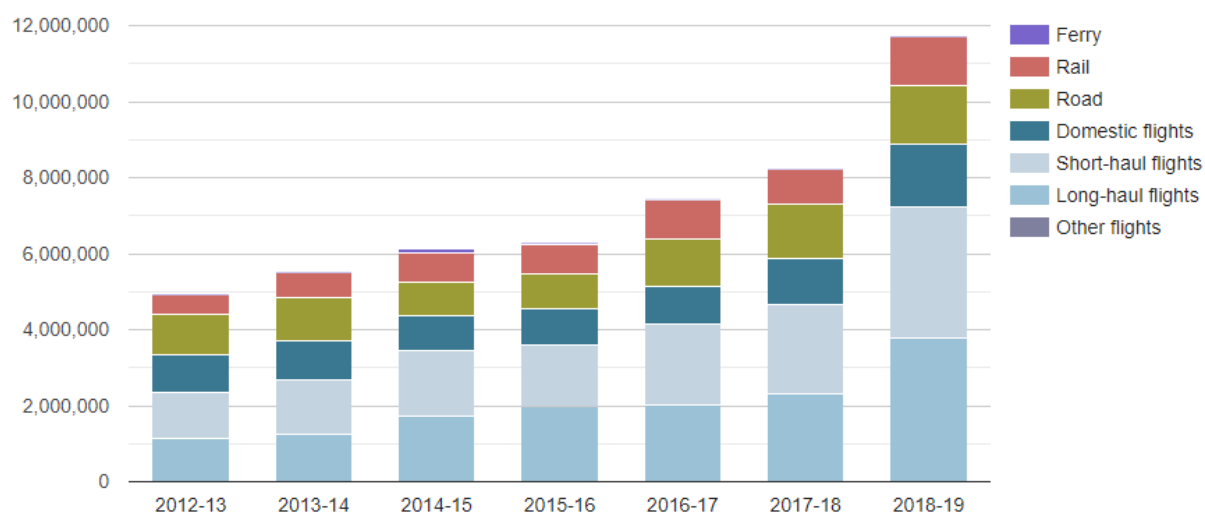


Figure 2. Total cost of our business travel per academic year (£ GBP)

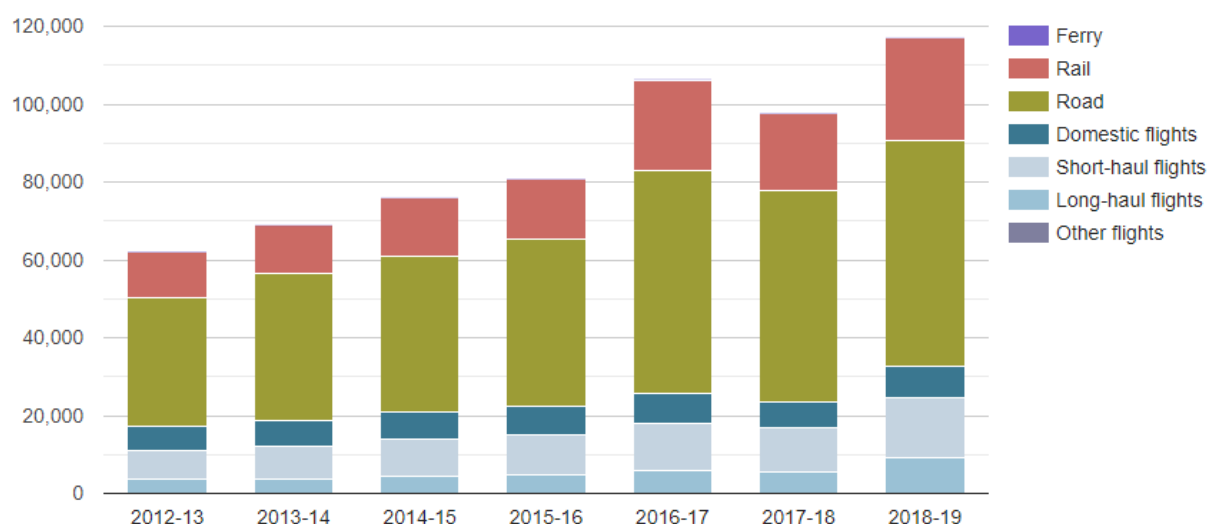


Figure 3: Our number of journeys taken for business, per academic year

To help the University calculate and interpret its travel emissions, we developed a world-first interactive [Business Travel Report](#). Collecting and summarising the data is a complex task, and we are currently conducting a full audit of our travel data to ensure it is as accurate as possible.

We are not alone in considering the carbon emissions, costs and rising reliance of aviation; most other Universities and large corporations worldwide are beginning to assess the impacts of travel for business and various options to make this travel more climate-friendly. For example, the Russell Group created an [Environmental Sustainability Network](#) to share best practice, and emissions from aviation is one of the topics the network discusses. UK Research and Innovation – a major funder of University projects - has also [committed](#) to ensuring that sustainability is in everything they do. We work closely with these groups to identify best practice and share expertise.

For example, we are proud to lead a [network](#) of over 85 global institutions in a bid to address the growing emissions from business travel within higher education. This collaborative approach supports the sharing of ideas, establishes the scale of business travel emissions within the sector, and offers a platform for open discussion on this challenging topic.

Our data is better than many others but there are areas we need to improve- the reasons why people are flying (research, conferences and symposia, representing the University etc) and also whether these are paid from University resources or as part of external research.

### 1.3 What am I being asked to do?

This paper outlines our vision for climate conscious travel and a range of actions we can all take to enable students and staff to travel in a more climate-conscious way. You can use the information provided to help inform your answers to the questions asked in the consultation at [edin.ac/aviation](https://edin.ac/aviation). The consultation asks students and staff to give their views on the vision and actions, and in particular to consider what impact these actions might have on them, particularly in relation to equality, diversity and inclusion.

## 2. The University's vision for climate conscious travel

The Travel and Aviation Working Group propose the following vision for climate conscious travel to the year 2025:

### Vision for climate conscious travel

*"By 2025, all travel undertaken by our staff and students will be made in a 'climate conscious' manner and consistent with our overall climate change strategy."*

#### **Information:**

- **For individuals:** Staff and students, administrators and managers will have the right information at the point of planning and booking to ensure they are fully aware of the climate consequences of their travel, and that the alternatives open to them are clear, effective and manageable.
- **Organisational / management information:** Managers and leaders will have sufficient management information on the drivers, costs and carbon impacts of travel to track progress in delivering the vision.

**Visible leadership:** We will provide clear and transparent leadership on managing the impacts of air travel. Senior leaders will lead from the top by exploring alternatives and encouraging behaviour change across the University.

**Policies, required contributions and incentives:** We will amend policies to support low carbon climate conscious travel across all of our activities, such as preferencing flight-free travel within mainland Britain, and including required contributions on flights where appropriate to incentivise alternative modes of travel. The carbon from all travel that cannot be avoided will be sequestered (removed from the atmosphere) via high quality sequestration.

**UK travel:** By 2025 the vast majority of UK travel will be by public transport, and air travel will not be used, with a presumption against flights, unless by exception using rules that are clear, fair and that respect equality and diversity. Travel within the UK as the initial leg of a journey to an international destination would not be included.

**Partnership and collaboration:** We will work with our travel providers, fellow Universities, funders and travel companies to innovate in finding ways to reduce the carbon impact of travel, whilst maintaining the advantages that travel can provide for research, teaching, positive impact, business development and global connectiveness.

**Long-term change:** By 2025 we are committed to researching and publishing information on the links between academic excellence and travel, student experience and travel, and in exploring whether and how our internal processes can adapt to a carbon constrained world.



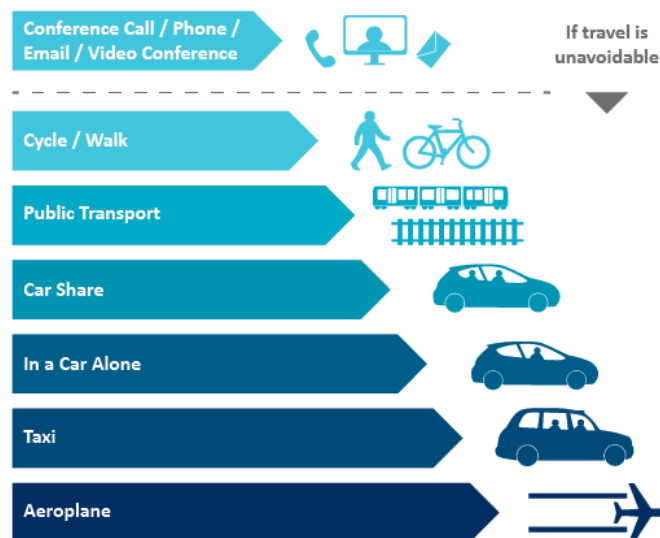


Figure 4: A hierarchy of business travel options, from least carbon intensive (electronic communication) to most carbon intensive (aeroplanes)

### 3. Possible interventions

The Travel and Aviation Working Group has considered a range of possible interventions to support climate conscious travel and criteria to evaluate those options, including:

- **Information provision and awareness raising:** e.g. providing data and information to students and staff on the carbon emissions related to various forms of travel and available alternatives in the hope of informing and driving behaviour change
- **Changes to policies:** e.g. flight-free travel within mainland Britain (subject to some limited exemptions, such as where the flight is part of an onward journey, or for reasons of equality, diversity, or inclusion).
- **Required contributions:** e.g. introducing a charge on all flights in proportion to the cost of each flight, with the funds generated being used to fund an agreed list of climate-conscious travel initiatives and carbon sequestration options
- **Subsidies:** e.g. for train travel and / or additional accommodation
- **Infrastructure provision:** e.g. better provision of video conferencing and virtual collaboration tools to make it easier to collaborate without the need for travel

We will explain these possible interventions in more detail in the following section.

We have evaluated these options against the following criteria:

- Criterion 1: Impact on our carbon emissions
- Criterion 2: Impact on our costs
- Criterion 3: Effectiveness in encouraging behaviour change
- Criterion 4: Avoid damaging our other core objectives including student and staff experience
- Criterion 5: Administrative simplicity
- Criterion 6: Relevance and scalability to other Universities

- Criterion 7: Impact on reputation and opportunity to show leadership
- Criterion 8: Ability to fund carbon reduction projects via hypothecation

(Criteria scored on a 1-5 scale, 1= lowest, 5= highest)

Offsetting provided by airlines was also considered, but is not supported; this is covered in section 3.1.2 below.

### 3.1 Required Contributions

We are proposing to implement a 'required contribution' – an extra charge – on top of flights both to fund carbon sequestration activities, such as tree planting, and to send a price signal that we are prioritising climate conscious travel methods. We expect the 'required contribution' will affect behaviours and move us towards our climate conscious travel vision.

#### Required contributions: summary and possible actions

- We define required contributions as a charge on each flight made by staff or students as part of University business.
- The money raised from these charges will fund carbon sequestration activities, such as tree planting.
- In 2020-21, these contributions may be paid for by the central University in order to immediately fund carbon sequestration activities.
- In 2020-21, some Schools and units will pilot paying their own required contributions.
- From 2021-22, all Schools and units will pay their own required contributions.
- Exemptions may apply – e.g. possible dispensations for early career researchers, certain funder requirements, or for reasons of equality, diversity, or inclusion
- Funds to be spent on an agreed list of carbon sequestration options, e.g. tree planting, and climate-conscious travel initiatives, e.g. subsidising rail travel

The use of such price signals is a commonly used and well-tested device in policy to draw attention to an area where an organisation wishes to see a change in behaviour, and as a means of funding development of alternatives. Such required contributions are in use in a number of UK and European Universities already. We hope that the introduction of the 'required contribution' is a means by which users will pause to consider if the flight is necessary or could be avoided by means of virtual collaboration tools, or the use of lower carbon forms of transport such as rail travel.

The following options are offered for consideration. Each one assumes that the monies collected would be used to fund climate conscious travel related activity, such as carbon sequestration, or perhaps invested in solutions to improve our virtual connectivity.

As we are still improving our data and would wish to test the best administrative means to support the required contribution, we are proposing to pilot the approach during 2020-21 with some Schools and units. We would test out possible approaches to introduce and manage the required contribution with an ambition to fully introduce from 2021-22. This is in order to better understand whether the contribution is best introduced at individual, unit or School / Directorate level and the possible impacts on behaviour.

During 2020-21, in order to immediately fund our ambitions to sequester carbon from flights, the required contribution may be paid for ('top sliced') at a University level from existing budgets.

#### Option 1: 10-15% required contribution, funded by individual Schools and Departments

- A required contribution is introduced on all University flights at a rate of, on average, 10-15% with the monies funded at individual School and unit level and collected via a central finance mechanism. Any funds collected will be spent on an agreed list of climate conscious related travel, with carbon sequestration a key component of that.
- Required contribution is introduced from 2021-22; we estimate this could raise c.£0.7m-£1m p.a. This sum is the amount we estimate we need to invest per annum - from now, going forward - to establish high quality carbon sequestration for all business flights by our 2040 net zero carbon commitment.

#### Option 2: 10-15% required contribution, differentiated depending on nature of flight, funded by individual Schools and Departments

- A required contribution is introduced on all University flights at a rate of, on average 10-15% with the monies funded at individual School and unit level and collected via a central finance mechanism. Any funds collected will be spent on an agreed list of climate conscious related travel, with carbon sequestration a key component of that.
- The required contribution attempts to differentiate in some way, either by allowing for some initial travel (e.g. 'first flight is free', or by role e.g. 'first X flights free for early career researchers').
- Required contribution is introduced from 2021-22; currently unclear how much it could raise.

#### Option 3: – Flat Rates, funded by individual Schools and Departments

- A flat rate based on distance flown is introduced on all University flights. Values proposed per return flight:
  - £25 domestic flights within mainland Britain
  - £35 short haul (flights under 3,700 km)
  - £50 for long-haul travel (flights over 3,700 km)
- Monies would be funded at individual School and unit level and collected via a central finance mechanism or through travel management company. Any funds collected will be spent on an agreed list of climate conscious related travel, with carbon sequestration a key component of that.
- Required contribution is introduced from 2021-22; could raise c£0.8m – £1.1m p.a.

#### 3.1.1 Assessing the required contribution options according to the criteria outlined

The Working Group have made the following assessment of the required contribution options according to the criteria outlined previously:

(Criteria scored on a 1-5 scale, 1= lowest, 5= highest)

Criteria	Option 1: 10-15% Schools / Departments funded	Option 2: 10-15% differentiated	Option 3: Flat rates
1. Impact on carbon emissions	5	5	5
2. Increase in costs	4	4	4
3. Effectiveness at encouraging behaviour change	4	3	4
4. Avoid damaging other core objectives	3	3	3
5. Administrative simplicity	3	2	3

<i>Table continued...</i>			
6. Relevance and scalability to other universities	4	4	4
7. Impact on University reputation and opportunity to show leadership	4	4	4
8. Ability to fund carbon reduction projects	5	3	5
<b>Total</b>	<b>32</b>	<b>28</b>	<b>32</b>

### 3.1.2 How should revenue from required contributions be used?

Any funds raised from required contributions on flights will be used to make a positive environmental impact. The majority of the fund will be used to fund sequestration of the carbon impact of our flights, such as by planting trees. A proportion of it could also be invested in other projects such as technology to improve our virtual collaborations, projects at School/unit or community level to reduce our carbon or travel, or research into the relationship between travel and other objectives.

Options include:

- Invest in carbon sequestration, e.g. tree planting, peatland restoration
- Invest in better virtual collaboration tools, e.g. more video conferencing pods
- Invest in further research into encouraging climate conscious travel at the University, such as research into advanced videoconferencing technologies e.g. telepresence
- Incentivise lower carbon forms of travel to popular destinations
- Invest in a central Sustainability Fund, which could then be used to fund a range of projects as required at any specific time

While introducing required contributions mean extra costs in the short term, we believe over time it could save money, as less travel occurs, as low-carbon travel options become cheaper relative to flights, and as the use of virtual collaboration tools increases. However the purpose of the required contributions is to change behaviour and deliver climate conscious travel, not to save money.

### 3.1.3 Carbon sequestration vs carbon offsetting

Carbon offsetting is a market-based payment from a carbon emitter to an organisation that will promise to compensate for this by reducing carbon emissions. Offsetting the emissions from business activities - such as flying, or holding a conference - is becoming increasingly popular as organisations deepen their understanding of where their emissions come from and how they can fund the removal of any emissions their activities release into the atmosphere. Some airlines now offer their own offsetting schemes which a booker can choose as an “add-on” during ticket purchase and the industry is launching a sector wide zero carbon plan to 2050.

While these have some merits, there is a lack of transparency over the actual carbon sequestration that takes place and a lack of assurance that these schemes will continue. Other concerns with airline’s own offsetting schemes is the misalignment between what different companies offer, that they are not tailored to the organisation booking the flight, and – importantly – do not encourage the booker to consider other lower-carbon methods of travel, nor reduce instances of travel.

For these reasons, the University has decided to undertake carbon sequestration that is under its direct control rather than market-based. This means any carbon sequestration will be done directly by the University, or that we will enter long-term partnerships of 50 years plus. This is a complex field but we summarise our position and reasoning [here](#).

A significant benefit of this approach is that University-managed carbon sequestration activities – such as tree planting or peatland restoration – can serve our broader vision when used as a research, teaching and outdoor education tool, as well as increasing natural and real capital and biodiversity for local communities.

### Carbon Sequestration

Carbon sequestration is the process of capturing and storing atmospheric carbon dioxide. It can take place via natural processes such as tree growth, via the application of technologies (e.g. direct air capture and storage (DACs)), or a combination of natural and technological processes (e.g. bioenergy with carbon capture and storage (BECCS)). Activities that increase the amount of carbon sequestration are also referred to as 'removal enhancements', such as peatland or restoration.

While we plan to proceed with own offsetting scheme via sequestration, we intend to also keep this approach under review as market-based offsetting schemes develop and mature.

## 3.2 Broader options

### 3.2.1 Information and awareness-raising of climate conscious travel options

For us to truly achieve climate conscious travel, all of us - students and staff - must be made aware of what this means, and be given advice on how to adapt our actions to include climate-conscious travel options.

We plan to communicate this through awareness raising activities, and with the provision of both simplified and detailed information of what climate conscious travel is and what options exist.

Examples include:

- Provision of detailed information on carbon emissions associated with each flight, at the point of planning/purchase, potentially with an estimate of difference between flight and train for domestic travel.
- Provision of guidance explaining differences between modes and class of travel as well as tips on reducing impacts.
- Clear advice on assessing full journey cost vs ticket cost when booking domestic travel. Whilst rail tickets are occasionally more expensive, it might reduce costs associated with getting to and from airports.
- Information specifically aimed at the major travel bookers at the University – unit admins, PAs to frequent travellers, etc., providing updates on policies and information on environmental impacts of travel.
- Improving information provision for non-travel options.
- Providing management information to heads of Schools and units.

### 3.2.2 Incentives and changes to policies

To support the change to carbon conscious travel, we think that a number of incentives might be given to travellers. For example, incentives could include financial support for travellers to choose low-carbon travel, time off in lieu for travelling by alternative means, or upgraded tickets. The exact incentives, and mechanism for collecting these incentives, would need further exploration before being confirmed.

Within mainland Britain, many locations are accessible by train. Because of this, we propose that there will be a presumption against flights within mainland Britain. There would not be a presumption against flights for travel to Islands within Great Britain (e.g. Shetland, the Isle of Man), Northern Ireland, or where the flight is part of an onward journey (e.g. Edinburgh to Shanghai via London Heathrow).

There would be a small number of exceptions to this presumption, for example for reasons of disability, inclusion, or accessibility.

### 3.2.3 Changes to the expenses policy

Our current expenses policy notes that, when booking travel, journeys should normally be booked via the University's travel management company (currently Key Travel) and based predominantly on financial viability. We propose that the expenses policy is adapted to state that consideration for financial viability, staff productivity, and carbon emissions are made when booking a journey.

This is to say that there will be a presumption against flights or, where flights are unavoidable, the lowest carbon ticket is purchased and efforts are made by the traveller to increase the value of their journey (e.g. by reducing the number of travellers, linking in multiple events in a single trip, extending the trip to enable greater knowledge sharing).

The expenses policy could be based on a decision-making tree, an example of which is set out below.

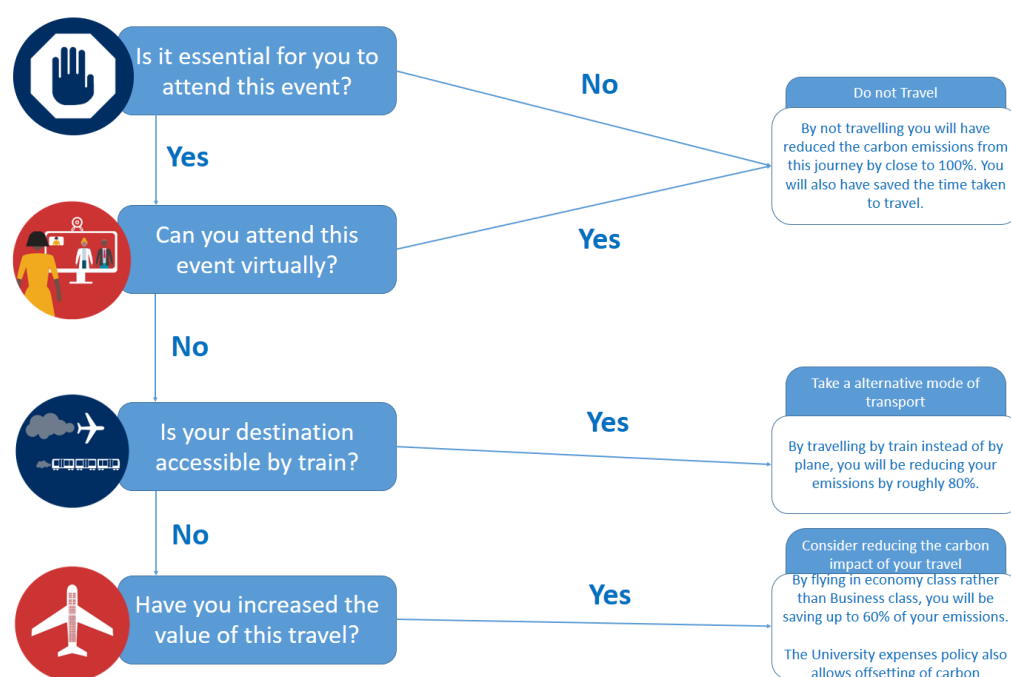


Figure 5: An example decision-making tree to assist an individual in interpreting the expenses policy.

### 3.2.4 Online and virtual collaboration tools

The easiest and most efficient way to reduce emissions from our business travel is by collaborating digitally; but the tools used to do this need to work easily, consistently and be available to all parties taking part.

This decreases financial costs by avoiding payment for the journey, improving staff productivity and reducing environmental costs by minimising CO<sub>2</sub> emissions.

If your journey can be avoided through a video conference, local computer video software, a telephone conference or a telephone call, then this may be the most efficient choice.

The University offers a range of online tools (e.g. Skype for Business, Blackboard Collaborate, and VScene) and dedicated physical spaces (e.g. video conferencing pods) to allow for virtual collaboration. These are suitable for 1-to-1 meetings all the way up to hosting presentations to 200 guests or meeting large groups (up to 20 participants) from one location.

The global FHE sector –including industry partners – are becoming more adept at facilitating collaboration via virtual tools.

Later in 2020 we will complete further work to consider other tools and assess the suitability of all proposed tools and the direction of travel of the sector in this area.

### 3.2.5 Researching the relationship between flights and achieving academic success criteria

Travel is an important element of academic excellence for a number of reasons, including:

- Research where the subject of research is abroad
- International collaboration with other research partners
- Gaining an international perspective on research matter to reduce cultural bias
- To communicate, teach or learn abroad
- To improve the diversity of one's experience, improving career prospects

One element of our climate conscious travel vision is:

***Long-term change:*** By 2025 the University is committed to researching and publishing information on the links between academic excellence and travel, student experience and travel, and in exploring whether and how our internal processes can adapt to a carbon constrained world.

The Working Group propose that a programme of research is created to examine the relationship between flights and research excellence as well as the relationship between flights and the student experience, and carried out in conjunction with other institutions worldwide.

In addition, the Working Group recommends research to explore new modes and models for low carbon collaboration - including conferences, symposia and telepresence could be initiated.

## 4. Equality, Diversity and, Inclusion

We wish to fully consider the impact of the options outlined on equality, diversity and inclusion and will be undertaking an Equality Impact Assessment to ensure proposals do not discriminate against individuals.

Some potential concerns we are aware of include:

- How climate conscious travel options may impact on early career researchers, who are encouraged to travel widely to build networks and collaborate
- How climate conscious travel options might disproportionately affect individuals with a disability
- How climate conscious travel options might disproportionately affect individuals with caring responsibilities
- How required contributions might interact with existing and future externally-funded research projects

## Thank you

Thank you for taking the time to read the information in this consultation document and respond to the consultation available at [edin.ac/aviation](https://edin.ac/aviation).

The University will collect and analyse responses to this consultation and also targeted consultation events in March and April 2020 in order to inform a recommendations report created by the University's [Travel and Aviation Working Group](#) and submitted to the [University Executive](#) in May 2020. The University Executive will agree actions to embed climate conscious travel at the University, with a view to implement improvements in academic year 2020-21.

Consultation findings will be made available on the [Aviation Consultation webpage](#) and all respondents will be notified both when they are published and when a decision is made by the University Executive.

For any enquiries relating to the Aviation Consultation, please contact the University's Department for Social Responsibility and Sustainability on 0131 651 3000 or [aviation.consultation@ed.ac.uk](mailto:aviation.consultation@ed.ac.uk).





## Welcome

Welcome to the University's consultation on climate-conscious travel. It should take about 10 to 20 minutes depending on the comments you have.

### Why are you being consulted?

As part of delivering the University's Strategy 2030 vision to make the world a better place, the University will become carbon neutral by 2040 by eliminating avoidable greenhouse gas emissions and sequestering any unavoidable emissions.

Emissions from travel are the third biggest and fastest growing proportion of the University's carbon emissions. To reduce these, the University will adopt a "climate conscious" approach to travel, meaning the travel choices staff and students make as part of University business will be informed by the environmental impact they have, with a preference towards lower-impact travel and virtual collaboration.

### What will you be asked?

We outline a range of actions the University is considering to enable students and staff to travel in a more climate-conscious way. We'd like to know your thoughts on the options presented, and how they will impact your work or studies.

Please read the information provided and answer the questions that follow. More detailed information is available at [edin.ac/aviation](https://edin.ac/aviation); we encourage you to have that open in a separate browser window.

### What will the University do with the consultation responses it collects?

The University will collect and analyse responses to this consultation and also targeted town hall events in March and April 2020. These inputs will be used to inform a recommendations report created by the University's Travel and Aviation Working Group and submitted to the University Executive in May 2020. The University Executive will agree actions to embed climate conscious travel at the University, with a view to implement improvements in the academic year 2020-2021.

Consultation findings will be made available at [edin.ac/aviation](https://edin.ac/aviation) and all respondents who have left their details will be notified when a decision is made by the University Executive.

For any enquiries relating to the Aviation Consultation, please contact the University's Department for Social Responsibility and Sustainability on 0131 651 3000 or [aviation.consultation@ed.ac.uk](mailto:aviation.consultation@ed.ac.uk).

The Communication and Marketing Department are running this consultation on behalf of the Travel and Aviation Working Group. See [here](#) for the privacy statement. We are collecting your information on the basis of legitimate interest. Your responses will remain confidential.

The consultation is being conducted online and the software used to power this survey is Survey Monkey ([www.surveymonkey.com](https://www.surveymonkey.com)). By completing the survey you consent to your personal data being transferred out of the EU and onto servers located in the United States. To facilitate compliance with European personal data export requirements Survey Monkey is certified under the EU-US Privacy Shield Programme. Click [here](#) for Survey Monkey's privacy policy.



## Welcome

\* 1. This consultation is for University of Edinburgh Staff and Students only. Can you confirm which of the following you are...

- ☐ University of Edinburgh Staff
- ☐ University of Edinburgh Student
- ☐ Neither of these



## SECTION 1: Vision / Proposed Interventions

“By 2025, all travel undertaken by us – University staff and students – will be made in a ‘climate conscious’ manner and consistent with our overall climate change strategy.”

In order to achieve this vision, we are considering a series of possible interventions:

- **Information provision and awareness raising**: e.g. providing data and information to students and staff on the carbon emissions related to various forms of travel and available alternatives in the hope of informing and driving behaviour change
- **Changes to policies**: e.g. flight-free travel within mainland Britain (subject to some limited exemptions, such as where the flight is part of an onward journey, or for reasons of equality, diversity, or inclusion)
- **Required contributions**: e.g. introducing a charge on all flights in proportion to the cost of each flight, with the funds generated being used to fund an agreed list of climate-conscious travel initiatives and carbon sequestration options
- **Subsidies**: e.g. for train travel and / or additional accommodation
- **Infrastructure provision**: e.g. better provision of video conferencing and virtual collaboration tools to make it easier to collaborate without the need for travel

\* 2. To what extent do you agree or disagree with each of these proposed interventions?

	Completely agree	Mostly agree	Neither agree nor disagree	Mostly disagree	Completely disagree	Not sure
Information provision and awareness raising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changes to policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Required contributions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subsidies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Infrastructure provision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Do you have any comments on any of the proposed approaches?

Information provision and awareness raising

Changes to policies

Required contributions

Subsidies

Infrastructure provision

We will now look at each of the interventions in a little more detail.



THE UNIVERSITY of EDINBURGH

Climate-Conscious Travel Consultation

## SECTION 2: Information Provision and Awareness Raising

In order to achieve this vision, we believe that all decisions need to be fully informed.

In particular:

- For individuals: Staff and students, administrators and managers will have the right information at the point of planning and booking to ensure they are fully aware of the climate consequences of their travel, and that the alternatives open to them are clear, effective and manageable.
- Organisational / management information: Managers and leaders will have sufficient management information on the drivers, costs, and carbon impacts of travel to track progress in delivering the vision.

#### 4. How much do you agree or disagree with the following statement...

I currently have the information I need to help me make climate conscious travel decisions for my work/studies?

- ☐ Completely agree    ☐ Mostly agree    ☐ Neither agree nor disagree    ☐ Mostly disagree
- ☐ Completely disagree    ☐ Not sure

#### 5. What further information do you need?



THE UNIVERSITY of EDINBURGH

### Climate-Conscious Travel Consultation

#### SECTION 3: Changes to Policies

#### 6. We are proposing to change some of our policies to support climate conscious travel.

How supportive are you of the following?

	Completely support	Mostly support	Neither support nor oppose	Mostly oppose	Completely oppose	Not sure
Flight-free travel within mainland Britain (subject to some limited exemptions)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A climate conscious approach to travel outside of the UK where possible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



THE UNIVERSITY of EDINBURGH

### Climate-Conscious Travel Consultation

#### SECTION 4: Required Contributions

7. We are interested in implementing a 'required contribution' – an extra charge – on top of flights. These would fund carbon sequestration activities, such as tree planting, and to send a price signal that the University is prioritising climate conscious travel methods.

#### Required contributions

- We define required contributions as a charge on each flight made by staff or students as part of University business.
- The money raised from these charges will fund carbon sequestration activities, such as tree planting.
- In 2020-21, these contributions may be paid for by the central University in order to immediately fund carbon sequestration activities.
- In 2020-21, some Schools and units will pilot paying their own required contributions.
- From 2021-22, all Schools and units will pay their own required contributions.
- Exemptions may apply – e.g. possible dispensations for early career researchers, certain funder requirements, or for reasons of equality, diversity, or inclusion.
- Funds to be spent on an agreed list of carbon sequestration options, e.g. tree planting, and climate-conscious travel initiatives, e.g. subsidising rail travel.

In general, do you agree with the principle of introducing a required contribution?

- ☐ Completely agree      ☐ Mostly agree      ☐ Neither agree nor disagree      ☐ Mostly disagree
- ☐ Completely disagree      ☐ Not sure



THE UNIVERSITY of EDINBURGH

Climate-Conscious Travel Consultation

#### SECTION 4: Required Contributions

There are three required contribution options being considered, with some similarities across them all and some points of difference:

**Option 1: 10-15% required contribution, funded by individual Schools and Departments**

- A required contribution is introduced on all University flights at a rate of, on average, 10-15% with the monies funded at individual School and unit level and collected via a central finance mechanism. Any funds collected will be spent on an agreed list of climate conscious related travel, with carbon sequestration a key component of that.
- Required contribution is introduced from 2021-22; we estimate this could raise c.£0.7m-£1m p.a. This sum is the amount we estimate we need to invest per annum - from now, going forward - to establish high quality carbon sequestration for all business flights by our 2040 net zero carbon commitment.

**Option 2: 10-15% required contribution, differentiated depending on nature of flight, funded by individual Schools and Departments**

- A required contribution is introduced on all University flights at a rate of, on average 10-15% with the monies funded at individual School and unit level and collected via a central finance mechanism. Any funds collected will be spent on an agreed list of climate conscious related travel, with carbon sequestration a key component of that.
- The required contribution attempts to differentiate in some way, either by allowing for some initial travel (e.g. 'first flight is free', or by role e.g. 'first X flights free for early career researchers').
- Required contribution is introduced from 2021-22; currently unclear how much it could raise.

**Option 3: Flat Rates, funded by individual Schools and Departments**

- A flat rate based on distance flown is introduced on all University flights. Values proposed per return flight:
  - £25 domestic flights within mainland Britain
  - £35 short haul (flights under 3,700 km)
  - £50 for long-haul travel (flights over 3,700 km)
- Monies would be funded at individual School and unit level and collected via a central finance mechanism or through a travel management company. Any funds collected will be spent on an agreed list of climate conscious related travel, with carbon sequestration a key component of that.
- Required contribution is introduced from 2021-22; could raise c.£0.8m – £1.1m p.a.

**8. Please rank the 'required contribution' options according to your preference**

1  
2  
3



Option 1: 10-15% required contribution, funded by individual Schools and Departments

1  
2  
3



Option 2: 10-15% required contribution, differentiated depending on nature of flight, funded by individual Schools and Departments

1  
2  
3



Option 3: Flat Rates, funded by individual Schools and Departments

9. Please explain your ranking of the options

10. What impact would the introduction of required contribution have on your behaviour, and why?



THE UNIVERSITY *of* EDINBURGH

**Climate-Conscious Travel Consultation**

## SECTION 5: Subsidies

11. To support the change to climate conscious travel, are there any other incentives you would find attractive?



THE UNIVERSITY *of* EDINBURGH

**Climate-Conscious Travel Consultation**

## SECTION 6: Infrastructure Provision

12. The most efficient way to reduce emissions from business travel is by collaborating digitally, such as using video conferencing software; but the tools used to do this need to be easy to use, well supported and available to all parties taking part.

The following are some of the virtual collaboration tools currently used across the University. Please let us know if you have used them and how effective you feel they are.

	Very effective	Quite effective	Neither effective nor ineffective	Quite ineffective	Very ineffective	I've never used this tool
Skype for Business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blackboard Collaborate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
VScene	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video conferencing in pods and rooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Microsoft Teams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Do you use other virtual collaboration tools?

If yes, please explain why do you use them, and who with? (e.g. " I use Zoom to collaborate with project funders", etc)

If no, please leave blank.

14. Do you have any specific proposals on how the current mix of online and virtual collaboration tools could be improved?

If you don't, please leave blank.



THE UNIVERSITY of EDINBURGH

Climate-Conscious Travel Consultation

SECTION 6: Infrastructure Provision



15. Travel is seen as an important element of academic excellence for a number of reasons, however, long and short haul flights made up 16,000 tonnes of CO<sub>2</sub>e released last year.

We need to examine the relationship between our current objectives and the need to travel.

In order to further reduce this figure, we propose that a programme of research is created to examine the relationship between flights and i) research excellence ii) the student experience, to be carried out in conjunction with other institutions worldwide.

Would you be willing to take part in this research? If yes, please leave your details below. These would be passed to the Department for Social Responsibility and Sustainability who would invite you to take part. You are under no obligation to take part if an invitation is issued.

Name

Email Address

Who you are (e.g.  
Academic Staff;  
Professional  
Services Staff; UG;  
PGT; PGR)



THE UNIVERSITY of EDINBURGH

Climate-Conscious Travel Consultation

## SECTION 7: Equality, Diversity and Inclusion

16. We wish to fully consider the impact of any proposal on equality, diversity and inclusion and will be undertaking an Equality Impact Assessment to ensure proposals do not discriminate against individuals.

Some potential concerns we are aware of include:

- How climate conscious travel options may impact on early career academics, who are encouraged to travel widely to build networks and collaborate
- How climate conscious travel options might disproportionately affect individuals with a disability
- How climate conscious travel options might disproportionately affect individuals with caring responsibilities
- How the required contributions might interact with existing and future externally-funded research projects

Do you have any comments or concerns relating to equality, diversion and inclusion for any of the proposals?



## SECTION 8: Summary

17. Overall, what do you think about our proposals?

- ☐ Very good    ☐ Quite good    ☐ Neither good nor poor    ☐ Quite poor    ☐ Very poor    ☐ Not sure

18. Please give a reason for your answer.



## SECTION 9: Demographics

19. To help us understand views by different groups can you provide some information about yourself?

Firstly, which of the following age bands are you in?

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> 20 or under | <input type="checkbox"/> 51 to 60          |
| <input type="checkbox"/> 21 to 25    | <input type="checkbox"/> 61 to 70          |
| <input type="checkbox"/> 26 to 30    | <input type="checkbox"/> 71 or over        |
| <input type="checkbox"/> 31 to 40    | <input type="checkbox"/> Prefer not to say |
| <input type="checkbox"/> 41 to 50    |  |

20. Are you...

- ☐ Female    ☐ Male    ☐ Non-binary    ☐ Prefer not to say

- ☐ Other (please specify)

21. Select which of the following best describes you:



THE UNIVERSITY of EDINBURGH

Climate-Conscious Travel Consultation

## SECTION 9: Demographics

22. Select which school or department you are in.

23. How long have you worked/studied at the University?

- |  |   |
|--|---|
| <input type="radio"/> 2 years or under | <input type="radio"/> 11 to 20 years    |
| <input type="radio"/> 3 to 5 years     | <input type="radio"/> 21 years or over  |
| <input type="radio"/> 6 to 10 years    | <input type="radio"/> Prefer not to say |

24. How many University-funded or project-funded trips did you go on in the last year (roughly)? This includes those in the UK (but not in Edinburgh), EU and International trips.

- |                               |   |
|-------------------------------|---|
| <input type="radio"/> None    | <input type="radio"/> 11 to 15          |
| <input type="radio"/> 1 to 2  | <input type="radio"/> 16 to 20          |
| <input type="radio"/> 3 to 5  | <input type="radio"/> 21 or over        |
| <input type="radio"/> 6 to 10 | <input type="radio"/> Prefer not to say |

25. Who do you book University travel for? Please tick all that apply.

- |  |                                 |   |                                 |
|--|---------------------------------|---|---------------------------------|
| <input type="checkbox"/> Myself            | <input type="checkbox"/> Others | <input type="checkbox"/> Approve travel<br>for others | <input type="checkbox"/> Nobody |
| <input type="checkbox"/> Prefer not to say |                                 |   |                                 |



THE UNIVERSITY of EDINBURGH

Climate-Conscious Travel Consultation

Thank you

26. Thank you for taking the time to read and respond to this consultation.

The University will collect and analyse responses to this consultation and also targeted consultation events in March and April 2020 in order to inform a recommendations report created by the University's Travel and Aviation Working Group and submitted to the University Executive in May 2020. The University Executive will agree actions to embed climate conscious travel at the University, with a view to implement improvements in the academic year 2020-2021.

Consultation findings will be made available at [edin.ac/aviation](http://edin.ac/aviation) and all respondents who have left their details will be notified when a decision is made by the University Executive.

For any enquiries relating to the Aviation Consultation, please contact the University's Department for Social Responsibility and Sustainability on 0131 651 3000 or [aviation.consultation@ed.ac.uk](mailto:aviation.consultation@ed.ac.uk).

Do you wish to be informed when a decision is made by the University Executive? If so, please leave your details below.

These will be passed to the Department for Social Responsibility and Sustainability who will get in touch.

If you do not, please leave blank.

Name

Email Address

Thank you. Please now click 'Done' to submit your responses.