



Grounded: Guide to a Climate Friendly Travel Policy

Air travel often accounts for a large proportion of an organisation's climate impact. Many organisations that want to mitigate global warming realise that they must question their fundamental modes of business travel. There are many options to "ground" business travel. This guide shows **nine steps** that could be considered in an **institutional travel policy**. Academic and research institutions are the focus, but similar measures could also be applied at other organisations, e.g. NGOs, engineering services, consultancies, training, coaching and various forms of teaching.



WHY ACT ON TRAVEL EMISSIONS?

The climate impact from air travel cannot be underestimated:

- Air travel is responsible for about **6%** of current global warming¹. Taken together this is about two to three times the warming caused by countries like Germany or Japan².
- The **climate impact** from aviation is actually **three times bigger than just from its CO₂ emissions** alone, as aviation induced cirrus clouds, contrails and ozone derivatives have a strong warming effect¹.
- Global aviation is one of the **fastest growing sectors** with little genuine emission mitigation. The global air traffic volume has been projected to double in less than twenty years from now, powered predominantly by fossil fuels. Even if the growth is damped now as a consequence of the current COVID19 pandemic, its growing emissions go against all efforts to curb global warming.³
- For academic or research institutions, the emissions related to air travel often make up a very **substantial fraction** of their annual greenhouse gas emissions. The biggest shares can in turn often be traced back to a few frequent flyers and to a distinct number of inter-continental trips.
- Likewise, the **carbon footprint** of individual employees is highly influenced by the amount of business travel they undertake. Any long-distance flight will push their work related climate footprint far above a sustainable limit.

A SOCIETAL CONSENSUS AND A REQUEST FROM STAFF TO RECEIVE GUIDANCE

Countries around the world have subscribed to the Paris Agreement on combating climate change³. The scale of the mitigation challenge is so big that no sector or part of society is exempt, including academia. Many climate researchers advocate a substantial change in current practices in order to drastically curtail emissions to prevent dangerous climate change. Employees that are willing to make changes regarding emission reductions deserve **guidance, support and recognition** for their actions. It is good for everyone if the institution takes a stand and clearly lays out its position with respect to its own carbon footprint and what that means for its day-to-day operations.

There is a growing number of organisations, with universities and research institutes at the forefront, that have started implementing **policies** with the aim of reducing their institution's carbon footprint in general and from travel in particular.

NINE STEPS TO HELP “GROUNDING” YOUR INSTITUTION'S TRAVEL POLICY

Most of the following steps can be implemented either bottom-up or top-down. From observation of organizations that have implemented these changes it appears that most initiatives start bottom-up, and these can be quite successful. However, the most effective initiatives demand buy-in from the leadership – see step 2 and 3.

1

UNDERSTAND THE ISSUE AND RAISE AWARENESS



It is important to first **analyse the amount of air travel and the resulting emissions**⁴. This may require adjustments of internal monitoring processes and should be used to raise awareness of the scale of the issue and of the environmental impact of business travel.

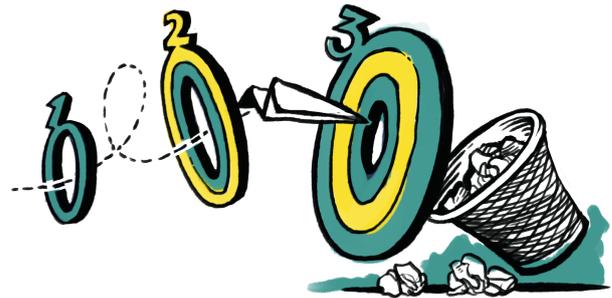
One typical factor could be that most trips are made by a relatively small number of people, that most emissions relate to **long-distance flights**, and that the trip's impact is exacerbated using **business or first class**.

This exercise can be used to clarify the **institutional processes** that take place when making travel decisions. Who is involved in and responsible for these decisions? Which criteria are relevant for the decision, and is the climate impact of the travel options one of them? How can the institution make climate relevant information transparent and the travel decision accountable? Where are the most obvious areas for changing practices - changing from business to economy class, shifting to ground travel, eliminating empty bookings for the sake of reservations, avoiding multiple staff flying to the same destination/event, or questioning frequent trips to the same destinations?

Many universities have commissioned Master or PhD theses to explore the extent of the problem “at home”. This can be a first important step to qualitatively and quantitatively **create a baseline** for further action.

2

SET AN AMBITION LEVEL AND TARGETS



An institutional policy requires **commitment from the institution's leadership**. Thus, the leadership is expected to determine its target with respect to climate change mitigation and the role of business travel in it. Multiple experiences suggest that bottom-up actions from staff have only a limited reach and effectiveness, even if they can be quite important for awareness raising.

Typically, a climate change mitigation policy includes a **target for reducing the emissions** from the operations one is responsible for. The 2015 Paris Agreement on Combating Climate Change could be taken as an accepted reference: Greenhouse gas emissions in industrialised countries should decrease by at least 80-90% until 2050 relative to 1990 and eventually become (net) zero. This could be translated to a simple rule of thumb like: *Reduce greenhouse gas emissions by 50% every 10 years from now onwards*. A continuous reduction process could be initiated by setting an **absolute target** like “...no more than X tons by year Y” or a **relative target** like “...continuously reduce emissions by x% until year Y”. The chosen target could be announced as a **public pledge**, for example by filling in the survey on the Stay Grounded website (www.stay-grounded.org/organisations/survey).

Target setting can be extremely challenging and requires a lot of **lobbying** work at an institution to include all administrative bodies. Usually it is crucial to first get leadership on board to establish an institution-wide target. Even if joint target setting is not successful, this does not mean that other measures cannot be successfully employed particularly – **non binding/voluntary measures** of creating accountability might be a useful **interim step** on the way to official targets and policies actively restricting flights.

3

REDUCE FLIGHTS



Actively creating policies that restrict the number of flights is unavoidable. While some staff might be supportive, there should be no denying the fact that flying for meetings has often been linked with status. It can be expected that there will be resistance against substantial changes of this traditional mode of travelling and its perceived prestige.

Many options exist for reducing the number of flights.

- **Replace flights by ground travel**, notably train. Several institutions do not allow short-haul flights for destinations of less than 800 km distance or less than 8 hours travel distance⁵. Instead, trains have to be used for such trips in Europe.
- **Curtail the annual number of regional and long-distance flights** funded per staff, sometimes differentiated by function categories. A travel budget like this provides an incentive for carefully choosing the event and destination and instils a more thorough assessment of expense and benefit.
- Continuously **reducing the number of flights per head or the total air miles** travelled could be another incentive to become more productive and creative in fulfilling work commitments.

Many measures mentioned above would have been considered anything between impossible to outrageous before the widespread travel restrictions in response to the COVID19 pandemic which brought business travel to a halt. Since then almost everybody has learned to conduct meetings differently and to **become productive with virtual means**. The experiences extend from one-to-one interactions to virtual workshops, from project meetings to international conferences. These experiences should be taken as a "new normal". A lot becomes possible when new constraints like a pandemic or climate mitigation are accepted.

4

CREATE CONDITIONS THAT FAVOUR CLIMATE FRIENDLIER TRAVEL



Established practices need to be revised in many cases to create conditions that favour climate friendlier modes of travel or virtual meetings. Typically this may include:

- **Include the carbon-equivalent emissions for the planned travel as an explicit decision criterion**. There are many easy to use carbon calculators⁶ that allow to compare trips.
- If the established decision making is strongly based on economic criteria, **add a price tag on carbon**⁷. This simple measure can reflect a voluntary internalisation of the unaccounted external costs of the different travel modes.
- When flying is found necessary, the most climate friendly way should be the preferred choice: **Strongly limiting the use of first or business class booking** is not only economical but reduces the climate impact per mile travelled considerably. Likewise, **direct flights should be preferred over indirect flights**, as detours and take-offs add significantly to the carbon burden of the travel.
- There should be **incentives to choose climate friendly travel modes**. For instance, institutional travel booking should always give train travel as the first choice. Incentives may include the routine booking of business class for train travel or of a single cabin in a sleeper train.
- Such schemes also need to address some formal obstacles. It can help to acknowledge that **travel time is (at least partially) working time**, and that **higher out-of-pocket costs**, e.g. for train tickets, sleeper compartments or business class on trains are acceptable when total societal costs due to climate change mitigation are lower.
- It should go without saying that **in-house facilities for online communication** should be seamlessly accessible. Hard- and software need to be readily available and users trained so that an online conference is as easy as picking up the telephone.

5

BE SMART – PLAN AHEAD



A lot of travel is pre-arranged. When a project is planned, the project's partners are chosen, work packages are designed and time tables are drawn up, then meetings between partners are implicitly assumed. During that **planning phase** it would be excellent to make arrangements for the exchange without physical travel. It is also the best point in time to budget appropriate resources for either virtual meetings or climate friendly travel choices.

When **physical meetings** are planned, due consideration should be given to their necessity, frequency and the number of personnel on travel. A common rule of thumb is that only the first meeting should be physical, with all other follow-up meetings then virtual. Another example is conference attendance. Some institutes limit the number of people travelling to the same event, choosing delegates to represent the work of the group and feed information from the event back to the team⁸.

Lastly, organizers of project meetings should give due consideration to the **meeting's location**. A central location optimised for ground connectivity in combination with good virtual meeting facilities can help reduce travel burdens both in terms of travel time as well as its associated carbon burden. It may require more work to organise away from the facility, but it should be part of any serious considerations on how to optimise under the constraint of climate change mitigation.

In many cases, a **physical meeting might not be necessary at all** and proceedings could be conducted **online**. There are already many ways to organise large international online events⁹, including options for small talk and exchange between the participants – with the additional benefit that more participants will be able to attend, from different parts of the world.

6

CREATE ACCOUNTABILITY



The climate impact of a specific means of travel has rarely been a criterion in travel decision making and granting. Any serious institutional policy on climate friendlier travel needs to take this aspect into the equation. Ultimately, there need to be rules to decide on trade-offs between the expected benefits of a planned meeting and its expenses emission-wise.

One tool to help accounting might be a **travel decision tree** asking explicitly for the need for travel and any low-carbon alternatives¹⁰. Transparency about the decision making in the institution can help foster a new culture. When it becomes widely known which trips are considered necessary and which trips are best avoided this can inspire learning, team spirit, fairness and a sense of common purpose.

Targets should be accompanied with **monitoring** of their progress. This can be a big challenge, as large organisations might not have easy access to flight bookings and related information. Staff in Belgian and Swiss universities can share experiences of the rocky road towards comprehensive emission monitoring¹¹. The Stockholm Environment Institute is a great example for target setting, monitoring and more broadly for their environmental policies¹².

7

WORK ON THE CULTURAL CHANGE



Ideally, climate friendly means of travel would become the **new normal**. This requires cultural change in a direction where carbon intensive activities may be considered unsocial and unacceptable in the same way that smoking inside or drinking at work currently is.

Ways to encourage cultural change include **highlighting the need** for climate friendly travel as well as **recognition of climate friendly behaviour**. Such recognition might be accompanied by an institution-wide push for the most viable travel options and emissions reduction milestones. To be successful it is crucial that all levels of the institution, including management, participate in these programs.

The new culture should give climate friendly transport positive recognition while reducing the centrality of carbon intensive air travel. Benefits like those received from frequent flier programs should be associated with climate friendly travel and not air travel.

Part of the cultural change also involves **addressing the fear of missing out**. Many meetings have low productivity and unimpressive outcomes. However, many employees attend due to fear of losing out to competitors or of being cut from potentially important information¹³. This system of ultimately wasteful meetings and international gatherings must be addressed in attempts to enact positive change.

8

LOBBY FOR THE BIGGER PICTURE

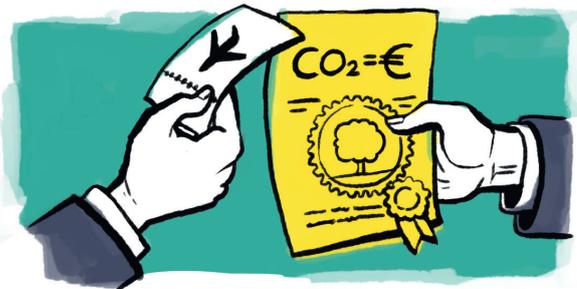


Climate change mitigation suffers from a lack of unified movement. Individual actions are not enough. Therefore, **it is important to be an activist**. **Spread the word** about ways to reduce air travel to other institutions in one's field (research, academic, NGOs, corporations, policy institutes). Discuss with colleagues about the fear of missing out.

Advocate for **broader acceptance of online-meetings** and for meaningful **accounting** of climate change mitigation targets. Lobby for a change of **funding rules** to accept e.g. higher costs for climate friendlier travel. **Exchange experiences** with other organisations, e.g. the Roundtable of Sustainable Academic Travel¹⁴.

9

WHEN NOTHING ELSE WORKS



Changing practices and behaviour is hard and paying money for compensating carbon emissions is easy. But it is not certain whether offsetting emissions works to reduce their climate impact. Information on the **problematic aspects of 'greening air travel' and 'offsetting emissions'** can be found on the Stay Grounded Website¹⁵. Furthermore, it goes **against the needed long-term policy changes** required to prevent global warming for now and for the future. Emissions offsets are mentioned here only for completeness.

USEFUL LINKS AND FURTHER RESOURCES

Examples and policies of universities that decided to reduce their air travel: <https://stay-grounded.org/organisations/change-travel-policy/#universities>

For an overview of the variety of measures taken by universities all over the world, see the **Map of Academic Air Travel Reduction and Offsetting Projects**, created and being maintained as part of a PhD project by Agnes Kreil at ETH Zürich: <http://bitly.ws/9Uly>

END NOTES & LITERATURE

¹ Lee, D. S. et al. (2020): The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018. Atmospheric Environment 117834 (2020). <https://www.sciencedirect.com/science/article/pii/S1352231020305689>

² Rocha, M. et al. Historical Responsibility for Climate Change – from countries emissions to contribution to temperature increase (2015). Climate Analytics, PIK. https://www.climateanalytics.org/media/historical_responsibility_report_nov_2015.pdf

³ UNFCCC Paris Agreement on Combating Climate Change (2015). <https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement>

⁴ Aviation's global warming is three times bigger than only its carbon dioxide emissions (see endnote 1). The different warming species are often brought on a similar scale called CO₂-equivalents. A complementary view would be the resulting temperature change from the different agents (climate impact). In this guide we always mean the full suite of emission compounds and their impacts.

⁵ E.g. University Ghent: <https://stay-grounded.org/project/university-ghent/>

⁶ E.g. www.atmosfair.com or www.ecopassenger.org

⁷ Yale University's School of Forestry and Environmental Studies adds lump sums to intra-US and extra-US air travel costs to reflect a carbon price.

⁸ Reported for PwC and Arcadis in the Netherlands.

⁹ See a collection of guides to do so here: <https://stay-grounded.org/organisations/change-travel-policy/#conferences>

The **Travel Better Package** by “Sustainability Exchange”, delivered by the Alliance for Sustainability in Education (EAUC), aims to support the reduction of air travel in the education sector: https://www.sustainabilityexchange.ac.uk/travel_better_package

Best practice examples or “grounded organisations”: <https://stay-grounded.org/organisations/examples/>

¹⁰ Tyndall Centre for Climate Change Research: Code of Conduct to support a low-carbon research culture. <https://www.tyndall.ac.uk/travel-strategy>

¹¹ See Vrije Universiteit Brussels (<https://www.vub.be/duurzaamheid/carbon-footprint#travel-abc>) and ETH Zurich (<https://ethz.ch/services/en/organisation/executive-board/vice-president-infrastructure/mobilitaetsplattform/air-travel.html>)

¹² E.g. the Environmental Policy of the Stockholm Environment Institute includes a voluntary target on carbon mitigation. <https://www.sei.org/about-sei/organization/governance/environmental/>

¹³ Neuhauser, Charlotte. (2002). Learning Style and Effectiveness of Online and Face-to-Face Instruction. In: American Journal of Distance Education. 16. 99-113. https://www.researchgate.net/publication/248940538_Learning_Style_and_Effectiveness_of_Online_and_Face-to-Face_Instruction

Wynes, S. and et al. (2019). Academic Air Travel Has a Limited Influence on Professional Success. In: Journal of Cleaner Production 226. 959-967. <https://www.sciencedirect.com/science/article/abs/pii/S0959652619311862>

¹⁴ The Roundtable of Sustainable Academic Travel: <https://businesstravelroundtable.ac/>

¹⁵ <https://stay-grounded.org/get-information/#offsetting>
<https://stay-grounded.org/green-flying-report/>

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