Toolbox FlyingLess
Flight Reduction in Academia

flyingless

INSTITUT FÜR ENERGIE- UND UMWELTFORSCHUNG HEIDELBERG

TdLab GEOGRAPHIE

UNIVERSITÄT HEIDELBERG ZUKUNFT SEIT 1386

Module 3.4 Implementation
Success factors & stumbling blocks

Important additional Information

FlyingLess Guideline about Measures
(https://doi.org/10.5281/zenodo.7848954)

Report "Reduction of flight emissions at ETH Zurich: Definitions"
(https://doi.org/10.5281/zenodo.7848978)

This document is part of a toolbox with different modules for "train-the-organisation" workshops to support academic institutions in reducing flight emissions in their organisation.

This module contains tips to help you successfully manage the change process in your institution. In particular, based on previous experience of reducing air travel in the academic sector, it contains tips on success factors and stumbling blocks that can enable or inhibit the change process. The structure of the module is based on the systematic implementation checklist from Module 5.1.

Governance

1. **Institutional/structural embedding**

    a. Where is the issue of reducing air travel embedded in the organisation?

    b. Who is in charge and responsible (see also point 6, personnel responsibility)?

    c. Who has the competences to make decisions?

➔ **Commitment and direction from the management level are essential to make the issue of air travel reduction relevant within the organisation and to enable its implementation. Responsibilities and competences need to be clearly defined and transparently communicated. Without a structural embedding, it is very difficult to sustainably pursue the topic in the organisation, because it then depends on individual, committed persons.**

2. **Strategy**

    a. Is climate neutrality or net zero part of the organisation's overall strategy?

    b. How do you deal with conflicting goals, e.g. internationalisation versus net zero?

    c. Who decides about priorities?

➔ **Embedding the topic in the organisational strategy shows its importance and gives a strong signal within the organisation.**

3. **Goals, targets and rules**

Are the reduction goals defined centrally or decentrally, top-down, bottom-up or in a combination? What targets are set? Are they mandatory or merely recommendations? Are concrete rules established (e.g. in the travel guidelines)?

➔ **There is a need for goals, targets and rules at different levels that apply to all and are binding; this shifts the discussion from "if" to "how" and thereby also supports the implementation at the different levels. Voluntary commitments rely on individuals to change their travel behaviour. However, it is often seen as unfair if not everyone participates; moreover, voluntary self-restraint has not been sufficient in the past.**

Are concrete rules established (e.g. in the travel guidelines)?

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a. Centralised (management level, department, etc.) versus decentralised (each unit, group)
b. Top-down: Goals, targets and implementation set by the management level
c. Bottom-up: goals, targets and implementation are developed in the units
d. Combination of top-down and bottom-up: general goals and targets from the management level, concretisation and implementation in the units

➜ **There are currently various models, e.g. (a) a reduction target by the management level (TU Graz), (b) a minimum target by the management level, which can be exceeded by the units (UZH), and (c) an individual bottom-up reduction target by the individual units (ETH Zurich).**

4. **Changed framework conditions that enable a transformation of science towards net zero**
(see module 2.2)

➜ **Participatory work with different actors to adjust the internal framework conditions (e.g. carbon budget) leads to constructive negotiations and broader support for the agreements reached.**

5. **Sanctionability**

a. Are the guidelines and rules such that they can be sanctioned?
b. Who is responsible for this and who controls?

➜ **If compliance with rules and regulations is not monitored and sanctioned where necessary, this can be perceived as unfair to those who do follow the rules.**

6. **Who has the personnel responsibility for implementation?**

a. Who at the management level is responsible?

➜ **For example, is there a prorector or delegate for sustainability?**

b. Who leads the process (project management), where is the project management located, how close is the exchange with the management level, what competences, budget does the project management have?
c. Are there responsible persons at different organisational levels (e.g. in the department, institute, group) who are legitimised and provided with a time and financial budget?

➜ **The topic should be in the responsibility of the management, which can delegate the implementation, but remains in charge (see Module 3.1, slides on responsibility). It further emphasizes the significance of the topic internally and externally if it is also embedded in the management level in terms of personnel and is communicated via different channels (e.g. regular communication, reporting, evaluations, embedding in the strategy, etc.). The implementation takes place in the units, where there should also be responsible persons who are equipped with the corresponding competences and resources.**

7. **What is the responsibility of the individual, what is that of the organisation?**

➜ **Both play an important role. Successful implementation requires both top-down governance and support as well as the bottom-up commitment of individuals.**

8. **How are the different groups (management level, professors, senior/junior scientists, administration, students) involved?**

➜ **It needs all levels, so all need to be involved.**

9. **Are there internal steering committees or groups at different levels (e.g. project steering group, sounding board, task force in each organisational unit, core group of pioneers)?**

➜ **Only when the topic is embedded within the organisation at all levels, a transformation of the organisation will be possible.**

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Gefördert durch:

Operationalisation: data, reduction target, timeframe, reduction path, carbon budget

Suggestions on this topic can also be found in the document "Reduction of flight emissions ETH Zurich: Definitions" on the FlyingLess website).

1. Is there a **database of flight emission in your organisation**? If yes, which database is used?
    a. Which unit is used? (e.g. in t CO_2 eq)
    b. What is the system boundary? (e.g. flights of staff paid by the organisation (and therefore in the financial system), of invited guests and of students within the curriculum).
    c. What is the baseline? Is the reduction target defined relative to emissions in a given year or multi-year period?
    d. Monitoring
        - Where is information on air travel collected (on paper, digitally)?
        - How are emissions calculated (incl. emission factors, RFI, etc.)?
        - Who calculates the emissions and at what intervals (monthly, annually)?
        - Who receives information about the calculated emissions and with what frequency? Do only a few in the organisation or does every group have access to the (own) emissions?

2. **What is the reduction target?**
    a. Is there a quantitative reduction target?
    b. By when must this target be achieved?
    c. Is the reduction target per FTE or total for the whole unit?
    d. Does the reduction target take into account the annual increase in efficiency of the airlines (approx. 1-2%/year) or not?
    e. How (process), at what level (whole organisation or only individual units) and by whom (top-down vs. bottom-up, individuals vs. participatory) is the quantitative reduction target set?
    f. Is there a uniform reduction target for the whole organisation or different targets for the units (with or without a minimum target)?
    g. Do the same goals apply to all within a unit or are they differentiated (e.g. according to frequent or infrequent flyers, status groups, career level)?

➔ **A quantitative, i.e. measurable reduction target is needed, with the respective decisions about the system boundary, etc. This target must be sufficiently ambitious and operationalised to achieve the net zero target.**

3. **Is there an interim goal?**

➔ **If the target is defined over a longer period of several years (e.g. –50% by 2030), interim targets are recommended.**

4. **Is there a predefined reduction path over the reduction period? Or is it sufficient if the reduction target is achieved at the end?**

5. **Is there a carbon budget for the organisation and for the units, derived from the reduction target (to make transparent how much emissions are available to each unit over a certain period of time)? How is the carbon budget consistent with the net zero target?**

➔ **A carbon budget can be an efficient and pragmatic solution to make the quantitative reduction target manageable for each unit. It is derived from the GHG emissions of the reference period and the reduction target and quantifies the emissions available for the remaining period for the respective unit. Everyone can then decide for themselves how to use this budget, e.g. for many short-haul flights or infrequent long-haul flights, for business or economy flights, etc. In the end, what counts is how much GHG is emitted.**

Measures to achieve the reduction target
See also Module 7 and FlyingLess Guideline on Measures

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1. **How are** the measures selected (top-down, bottom-up)?
2. **Do the same** measures apply to all or are they **differentiated** (e.g. according to frequent vs. infrequent flyers, status group, career level)?
3. How, by whom and to whom are the adopted measures **communicated**?
4. How and by whom are the measures **implemented**, who is responsible?
5. Are there **incentives** for sustainable travel?
6. How can role models or **multipliers be** recruited and involved who, as respected and committed opinion leaders, position and promote the issue?
7. Are the measures **sufficient** to achieve the goal?

➜ An important aspect of reduction targets and measures is fairness. Do the same rules apply to everyone? Does it make sense to set less strict targets and measures for certain groups (e.g. young scientists, field research)?

Communication

1. Is there a communication concept?
2. Who is the target group for internal and external communication, is the communication target-group specific?
3. Who (management level, communication department, project management, sustainability office, units, etc.) communicates regarding goals, measures, successes / failures?
4. What and how often is the topic communicated?
5. How is communication carried out? (e.g. newsletter, organisation-wide events, workshops, social media)
6. How often do major events on the topic take place?

➜ Communication is an essential part of keeping everyone informed and involved. Regular communication by the management level shows the importance of the topic. Role models/multipliers are important to show that the topic is relevant and that it is possible to do excellent science in a different way, i.e. with significantly less air travel.

Reporting

Topics: internal and external reporting on emissions, progress, resistance, best practices, etc.

1. Are there **reports** on emissions? **How often are** emissions reported? (e.g. annually)
2. Is there information/report on **progress, resistances and best practices**
3. Are there any guidelines for the **format** of the reporting? (e.g. a template)
4. **Who** is responsible for this?
5. **To whom** do these reports go and where are they discussed?
6. to superordinate bodies (e.g. state government, Max Planck Society)
7. to the management level (e.g. annual talks, target agreements)
8. within the unit (e.g. regular topic at departmental or institute meetings)
9. What happens if targets are not met (**sanctions**)?
10. How much **transparency** is there inside and outside the organisation regarding emissions, targets, measures, goals achieved or missed, etc.? Are units and persons anonymised in the reports or not? Are the reports made available on the intranet / internet?

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➔ Emotions: A fundamental change in how to do science with (almost) no flights is difficult and triggers emotions. This should be anticipated, the difficulties acknowledged, and the units supported in different ways.

Schedule of implementation

1. **Who sets the schedule?**

2. **Who supports the implementation?**

3. **Who controls the timely and target-oriented implementation**

➔ For the schedule, it is important that those responsible have sufficient competences and resources.

Networks

Is there good networking with other universities (national and international)?

➔ Networking about the flight reduction topic is very important and helpful, especially for those responsible at the universities (project leaders), so that they can advise each other and learn from each other's experiences. This can be v useful at the beginning of the process.

Evaluation

Is there regular evaluation, assessment and possible adjustment of the goals, measures and their implementation?

➔ Regular evaluation is important; this can be done with internal or external experts.

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NATIONALE
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About FlyingLess

The aim of the FlyingLess project is to support universities and research organisations in reducing air travel, which causes a significant part of their total greenhouse gas emissions.

FlyingLess develops approaches to reduce air travel in the academic sector, which are implemented at different levels (research, teaching and administration).

The project is being carried out in close cooperation with four pilot institutions - EMBL (European Molecular Biology Laboratory) and MPI Astronomy in Heidelberg as non-university research institutions and the Universities of Konstanz and Potsdam as universities.

Further information can be found on the website www.flyingless.de.

The project is being run under the leadership of the ifeu Institute Heidelberg in close cooperation with the TdLab Geography at the Institute of Geography at Heidelberg University.

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