Measures to reduce Eawag's CO₂ emissions related to business flights

Eawag is a research institution recognized worldwide and therefore has the potential to act as a role model for other research institutes by (1) taking on its institutional responsibility for further reducing CO₂ emissions and by (2) showing awareness/willingness to adequately react to climate change. As the Eawag Flyaware interest group, we propose 9 measures to reduce Eawag's CO2 emissions related to business flights.

Measure 1:

Official Statement (Eawag Directive): Eawag officially states that low-carbon transport (e.g. train) is preferred over high-carbon transport (e.g. flying) in an Eawag directive.

Improved Communication of Climate Friendly Mobility: Eawag will inform its staff more actively on climate friendly mobility.

- a. Many Eawag employees already show a high awareness of the impact of their mobility behavior. The communications department will highlight Eawag employees who actively reduce their business flights, or avoid them entirely (e.g. via intranet, poster exhibition, etc.), in order to promote role models and to take away the fear that professional development may suffer by avoiding or reducing business flights.
- b. Eawag sets up an intranet page on climate friendly mobility. This webpage will provide useful information on:
 - (i) International train travel such as on booking platforms (e.g. loco2.com, trainline.com and interrail.eu) that facilitate the booking process of train tickets within Europe
 - (ii) Video conference training (see measure 5)
 - (iii) The compensation system of CO₂ emissions from flying at Eawag (see measure 6)
- c. Reflections on climate friendly mobility become a mandatory part of yearly appraisal interviews. Supervisors and employees will reflect on whether a conference and the resultant business flight(s) are truly necessary to advancing given projects and/or professional development of the employee.

Measure 3:

Improved Data Base on Transport Behavior: The Eawag reporting database, which collects data on conference contributions, supervision of students etc., will be extended to collect data on mobility behavior. For each international business trip, information on the following will be collected:

- (i) Type of transportation used (flight, train, bus, etc.)
- (ii) Purpose of business trip (conference, project meeting, etc.)
- (iii) Points of departure and arrival

Internal Competition: Eawag sets up a scheme to motivate departments to reduce their CO₂ emissions caused by their mobility behavior. The long-term mobility behavior of each department will be documented based on the data collected in the reporting database (see measure 3).

- a. Results of the mobility behavior collected in the reporting database (see measure 3) will be presented at the Eawag Christmas party. Departments with the largest relative reduction of CO₂ emissions related to their mobility behavior will be highlighted and awarded (e.g. by a department excursion sponsored by Eawag) every year.
- b. After having established a database of mobility behavior over three years (see measure 3) all departments are requested to set internal reduction targets, e.g. a reduction of 20-50% over the following five years compared to the collected three-year average.

Measure 5:

Video Conferences: Currently, Eawag is improving the video conference equipment. Therefore, video conferences should be further promoted by:

- a. Eawag promotes the technology by showcasing it during larger events, such as in Eawag seminars and conferences hosted at Eawag.
- b. Regular trainings on the recently installed video conference equipment will be available for all staff and will be mandatory for all group leaders.
- c. Eawag makes it official policy (see measure 1) that video conferencing is the default choice for guests who would otherwise need to fly in for meetings and/or seminars.

Measure 6:

Compensation of CO₂ Emissions from Flying: Currently, CO₂ emissions from flying are compensated by CHF 20-200 per flight (depending on flight hours / ticket price). Flights paid by third-party funds are compensated through myclimate. Flights paid for by Eawag or through federal funds, are compensated for by supporting environmentally friendly behavior at Eawag, e.g. by improving bike offers at Eawag, such as parking spaces at Stettbach station and rental bikes.

- a. To further support climate friendly travel options (see measure 7), the CO₂ compensation fee for all flights will be doubled.
- b. All flights, independent of the funding source, are collected in the reporting database (see measure 3). Hence, even flights paid for through external funding (e.g. invitations by other research institutes, universities etc.) - which haven't previously been considered - will also be compensated.

Measure 7:

Promotion of Train Travels: Train travelling will be supported by:

- a. Eawag will recommend and state within the developed directive (see measure 1) that flights to destinations that can be reached within 10 hours by train, or that can be reached using an overnight train option, should be avoided. The journey will be considered as working time.
- b. Possible additional costs for train travel compared to flying (e.g. higher ticket price, additional overnight stays, etc.) will be paid for by Eawag e.g. by re-allocating funds received through compensation of flying-related CO₂ emissions (see measure 6).
- c. Moreover, first-class train rides might be considered in certain cases (e.g. ticket price max. 30% higher than a standard rate ticket) and will be financially supported by Eawag (e.g. by reallocating funds received through compensations of flying-related CO₂ emissions (see measure 6)).

Measure 8:

Restrictions of Overseas Flights: Overseas flights cause by far the largest amount of CO₂ emissions among Eawag business flights. Therefore, Eawag will restrict the number of overseas flights (except for field work):

- (i) Group Leaders, Department Heads and the Directorate: 1 overseas flight within 2 years (ii) PhD students and Postdocs: 1 overseas flight within PhD / Postdoc project period
- (iii) Other staff: 1 overseas flight within 4 years (comparable to length of PhD project)

Internal Cap on Emissions: A cap on CO₂ emissions caused by flying is introduced for the whole of Eawag and will be combined with an internal CO₂ emissions trading system.

- a. Every department gets an annual CO₂ emissions budget (e.g. based on the average CO₂ emissions patterns from previous years, as collected in the reporting database (see measure 3)), which can be allocated and traded (e.g. in the shape of certificates) among departments and individuals.
- b. The measure could be progressive over time: increasing slowly for the first few years and then more quickly later, so that departments can plan ahead, prepare and adjust themselves to the updated regulations.

