



# Air travel

## University of Basel



The transport sector is the world's second largest emitter of greenhouse gases: about 7.9 billion metric tonnes of CO<sub>2</sub> equivalents (CO<sub>2</sub>eq) were emitted in 2016 – and the figure is rising. Air travel in particular is growing at a rapid pace. In Switzerland, there were some 59 million air travelers in 2019, which represents a doubling of passenger numbers since 2005. Moreover, planes emit some of the largest quantities of greenhouse gases per kilometer compared with other means of transport.

**These tips will help you protect the environment while also staying mobile in your everyday life and leisure time.**

1. Travel less thanks to Skype, phones and video conferencing.
2. Use the train for business trips where possible.
3. Offset your CO<sub>2</sub> emissions.

## FACTS

### 1. Switzerland, a country of frequent fliers

Between 2010 and 2015, the number of journeys per person rose by 43%. According to forecasts,<sup>1</sup> this number will rise by a further 58% by 2030. The Swiss are already some of the world's most frequent fliers,<sup>2</sup> racking up about 6.3 flights per person per year (2017). The distances covered by these flights have also increased by about 57%.

### 2. Climate impact of air travel in Switzerland

The contribution of air travel to the overall climate impact in Switzerland is at least 18%.<sup>3</sup> If this trend continues, this figure will rise to at least 22% in 2020. The aviation industry is therefore the second biggest contributor to Switzerland's climate impact.

### 3. Air travel habits of university members

- On average, members of the University of Basel emit 1.1 metric tonnes CO<sub>2</sub>eq per year (2017/18/19) due to business air travel.
- This value is thus already nearly as high as the overall Swiss average (2018 incl. private air travel) of approx. 1.3 metric tonnes CO<sub>2</sub>eq.
- For comparison, the Federal Office for the Environment (FOEN) puts the threshold value based on the planetary boundary<sup>4</sup> for greenhouse gas emissions at about 0.6 metric tonnes CO<sub>2</sub>eq per person per year. The average university member's emissions due to air travel thus already exceed those available for all areas of life (transportation, energy, nutrition, etc.) according to the FOEN.

## SOLUTIONS

### 4. Plane vs. train

- Planes are one of the most environmentally harmful means of mobility per kilometer traveled and per person.<sup>5</sup> For each passenger kilometer (pkm), a plane emits 241 grams CO<sub>2</sub>eq on average (2014).
- In comparison, a European train journey emits 7–66 grams CO<sub>2</sub>eq per pkm (depending on the country). Swiss Federal Railways (SBB) is one of the most environmentally friendly transport companies<sup>6</sup> in Europe.
- Moreover, as the time spent traveling by train is uninterrupted, it is easier to put it to productive use.

### 5. Virtual meetings

- Replacing a business trip with a virtual meeting not only saves time and money, but also generates the smallest quantity of greenhouse gas emissions compared with traveling by plane, car or train.

### 6. Carbon offsetting

It isn't always possible to avoid flying. Various providers (e.g. [myclimate.ch](https://myclimate.ch)) therefore allow you to calculate and offset the climate-relevant emissions per kilometer traveled. When selecting climate protection projects for offsetting, give priority to those that bear the Gold Standard quality seal.<sup>7</sup>

<sup>1</sup> Federal Office of Civil Aviation (2018): <https://www.bazl.admin.ch/bazl/de/home/das-bazl/studien-und-berichte.html>

<sup>2</sup> umverkehr (2017): <https://flugfacts.ch/wie-viel-fliegt-die-schweiz/>

<sup>3</sup> World Wildlife Fund (2015): <https://www.wwf.ch/de/unsere-ziele/flugver-kehr>

<sup>4</sup> Federal Office for the Environment (2020): <https://www.bafu.admin.ch/bafu/de-home/themen/klima/inkuerze.html>

<sup>5</sup> mobitool (2016): <https://www.mobitool.ch/>

<sup>6</sup> SBB (2019): <https://company.sbb.ch/de/medien/publikationen/geschaefts-nachhaltigkeitsbericht/nachhaltigkeitsberichterstattung-2019.html>

<sup>7</sup> Gold Standard (2019): <https://www.goldstandard.org/>