General Sustainability Information
Travel Advice
Before You Travel

Reduce your carbon footprint with those tips and tricks

If you need to travel

• Take the day or night train if available
• Take the bus if available
• Fly direct and fly economy
• Choose the most efficient aircraft*
• Book a hotel close to the meeting location
• Choose an eco-friendly hotel
• If necessary, rent electric vehicles
• Use public transport instead of cabs

If you participate online

• Turn off your camera when not speaking. Cameras on average can consume 10 times more CO₂ when active.

*Note: To date, Google Flight is the only reliable CO₂ calculator publicly available. Use it to find the least polluting flight to your destination!

Taking a train is on average 20 x more carbon efficient than taking a flight. Ex: on a Munich – Vienna trip, you will save more than 100 kg of CO₂ by taking a train. This is the equivalent of 620 km driven.
When flying from Melbourne to Sydney, 
**Qatar Airways** is clearly the best option, 
since operating with 2 efficient A350.  
Worst option is **Emirates** flying with less 
efficient A380 and B777.

Each individual trip with Qatar Airways 
saves **1,2 tons of CO₂** vs. the same trip 
with Emirates (in Economy cabin). This is 
the equivalent of 7,500 km driven.

Qatar Airways via Doha: **3,4 tons of CO₂ RT**  
Emirates via Dubai: **4,6 tons of CO₂ RT**
Finding The Right Train – Many Nightline Options In Europe

https://www.nightjet.com/en/reiseziele
see also https://www.seat61.com and https://www.thetrainline.com
Impact During Your Trip (And Beyond)
During your conference trip, keep these factors in mind:

- Use public transport, bike or walk to your destinations.
- Reduce your consumption of red meat and eat more plant-based foods while traveling.
- Close the blinds in your hotel room to keep the heat in or out.
- Go plastic free by bringing your own water bottle and toiletries to avoid using the hotel provisions.
- Save water and ask your hotel not to collect towels and sheets everyday for cleaning.

Did you know?
- Beef & lamb production generates 8% of worldwide GHG emissions, i.e., twice more than the aviation industry. Reducing meat and dairy consumption is an important action to reduce the individual carbon footprint.
- If you need to drive, choose an electrical vehicle, that saves 50-80% CO₂ over the full life cycle vs. a petrol vehicle. But do not choose large vehicle (electrical or not). Do not choose hybrid either (often large and less efficient).
Did you know?

A vegan diet allows to save between 700 kg and 1.5 tons CO₂ a year.
BROAD SCIENTIFIC CONSENSUS: AVIATION’S CONTRIBUTION TO GLOBAL WARMING IS HIGHER THAN DIRECT CO₂ EMISSIONS ALONE

Aircraft engines also emit the following gases and particles which impact the climate:
- Nitrogen oxide (NOₓ)
- Soot aerosols
- Stratospheric water (H₂O)
- Sulphate aerosols (SOₓ)

Resulting in indirect atmospheric responses: chemical reactions – changes in ozone and methane concentrations, and microphysical processes – contrail and cirrus formation.

THESE EFFECTS ARE MORE DIFFICULT TO QUANTIFY THAN DIRECT CO₂ EMISSIONS (1 KG JET FUEL EMITS 3.16 KG CO₂) and also depend on atmospheric conditions (temperature and humidity), but the effect only has its impact in altitudes above 9.000 m.

RADIATIVE FORCING INDEX (RFI) is defined as the ratio of total radiative forcing to that from CO₂ emissions alone.

BECAUSE OF LOW LEVELS OF SCIENTIFIC UNDERSTANDING, THERE IS NO CLEAR RECOMMENDATION ON A SPECIFIC RFI FACTOR TO BE USED.

- Limited data availability
- Inaccuracy of measurement
- Large uncertainties of model simulations
- Forcings for individual aerosol types may not be additive

WE SUGGEST TO USE AN RFI MULTIPLIER OF 2
Should You Offset Your Emissions?
If you offset, choose wisely to increase your impact by...

- Not choosing a cheap, offsetting project proposed by an airline
- Using a reliable partner like C-level or Atmosfair
- Considering going beyond offsetting by giving money back to an organization that has an impact in green initiatives (e.g., WDC)

Tactful tip:
Never trust a supplier that promises you “carbon neutrality”. This concept is now forbidden in some countries (e.g., France). If you travel, you will pollute and cannot be carbon neutral. You can simply mitigate your carbon impact (but not compensate) by choosing reliable offsetting projects.
Let’s offset this flight. We have two options

**REFORESTATION PROJECTS**

Post-Ante = compensation is certain, it has already occurred before I buy it:

*My two tons of CO$_2$ are still in the atmosphere.*

Ex-Ante = compensation did not occur yet, but trees will be planted. But what if there is a forest fire? What if it’s cut down?

*In the best case, my 2 tons will stay in the atmosphere for 15-20 years before being absorbed.*

**ENERGY PROJECTS**

For example, building a wind turbine in Africa to replace thermic plant: I will avoid further emissions but not offset mine.

*My two tons of CO$_2$ are still in the atmosphere.*

Flying JFK To LHR Costs 2 Tons Of CO$_2$
A good offsetting project will focus on biodiversity, water conservation, or flood prevention that has the added benefit of a CO₂ decrease.

- **License to pollute**
- **Quality**
- **Additionality**
- **Double-Counting**
- **Time**
- **Permanence**
- **Carbon price**

**What’s the problem with offsetting?**

- In most cases, carbon prices are much too low. The price of CO₂ should be $20-$25 per ton at a minimum.
- A low carbon price makes people think they can cancel out their emissions which could lead to people traveling more.
- How do you know that projects you’re financing weren’t going to be done anyway?
- Who will guarantee that any trees planted are going to be there long enough to absorb the CO₂ from your flight?
- If you finance a reforestation project for the Amazon, who can claim emissions decrease, you or the Brazilian government?
- Trees planted as part of an offsetting project will need 30-50 years to absorb the CO₂ expelled during a flight.

In most cases, carbon prices are much too low. The price of CO₂ should be $20-$25 per ton at a minimum.
In a sustainable forestry projects, carbon sequestration is only a co-benefit. Other key components include:

- Biodiversity protection or regeneration
- Water preservation
- Social and Economic development of local populations
- Better agricultural practices (e.g., agroforestry)
- Soil fertilization
- Flooding prevention

Those elements are fundamental but are more difficult to measure than CO₂. Most carbon credits do not consider this holistic approach, and this focus on CO₂ excludes some local project leads from offsetting funds.
Carbon Neutrality

A questionable concept at a company / individual scale

- “Carbon neutrality” is a rigorous scientific concept that applies only to the planet. Neutrality or “Net Zero” is obtained thanks to some offsetting, but only after a massive decrease in emissions (-80%). The concept of carbon neutrality does not exist at a company level. A company can pretend it is “carbon neutral,” but no 3rd party can confirm that, as no standard / referential exists.

- The concept, by definition, involves a large amount of offsetting, whose numerous pitfalls make it uncertain: temporality, additionality, externalities, double counting, etc.

- Physics / Mathematics: a concept that cannot be transposed on a global scale cannot be considered as sustainable. As anthropic emissions are far higher than available CO₂ offsets worldwide, this concept cannot be universalized. **In other words, there are not enough carbon sinks worldwide to compensate for all emissions.** To be "carbon neutral" can only remain an "unfair claim" because it is made possible **on the sole condition that others are not.**
We recommend NOT targeting or communicating around “carbon neutrality.”

A better approach would probably be to communicate separately on emissions decreases on one side, and on offsetting on the other side.

→ Offsetting can probably be rephrased as “contribution”

This approach would be:

- **More precise**: offsetting does not “cancel” other emissions. More credit will then be given to a potential “real” decrease in CO₂ emissions.
- **More positive**: offsetting “cancels” emissions (as sins confession in the past) whereas “contribution” values good actions.
- **Better in terms of image**: as no reference / standard exist to define carbon neutrality, the risk of being criticized for greenwashing disappears with the concept of contribution.
- **More efficient**: projects less focused on CO₂ have proven to be more impactful.
A Balanced Carbon Offsetting Contribution Portfolio

Nature-based solution, e.g., reforestation (absorption)
High-quality projects. Holistic approach with CO₂ absorption as co-benefit. Strong focus on biodiversity and local communities
$30 to $60 per ton of CO₂

Technological solutions (avoidance and absorption)
Sustainable aviation fuel, direct CO₂ capture
$400 to $600 per ton of CO₂

Energy projects (avoidance)
Finance ecological transition in developing countries
$25 to $30 per ton of CO₂

Innovative nature-based solutions (avoidance)
Ex: protecting biodiversity (whales), finance insect industry to replace soja exportation, etc.
Price TBD

→ Do not target carbon neutrality but invest in projects that make a difference
Do not target carbon neutrality but invest in projects that make a difference.