

KLM's CO₂ Reduction Roadmap

Air travel connects people all over the world and creates welfare and jobs worldwide. Unfortunately, it also has an impact on the climate. Aviation is responsible for 2% to 3% of global, man-made CO₂ emissions. Since the aviation industry is expected to grow, so will its environmental impact. That's why we work with a CO₂ Reduction Roadmap, a plan that focusses on available solutions of today and sustainable developments for tomorrow. This roadmap also contributes to one of the Sustainable Development Goals of the United Nations ([SDG 13](#)).

What is our goal?

Our current goal is to reduce the CO₂ emissions by 20% per passenger in 2020 (in comparison with 2011). By the end of 2017, we had already reduced our CO₂ emissions by 16%. Furthermore, we aim to reduce the CO₂ emissions of our ground operations by 20% in 2020 (in comparison with 2011).

How will we achieve this?

In order to achieve our goal, we focus on 4 pillars: reducing fuel consumption, replacing fossil fuels, compensating CO₂ emissions and making our ground operations more sustainable.

- **Reducing fuel consumption:** Fleet renewal is the biggest contribution to reducing emissions. New aircraft are more fuel efficient and consequently emit less CO₂. The Fokker 70 has been replaced by the Embraer 175. The Embraer 190 and the Boeing 747 will be replaced by the Boeing 787-9 Dreamliner. Together, the new aircraft and the measures we're adopting for efficient flight operations deliver fuel savings between 35% and 40%.

We're also implementing a range of operational measures: we're reducing aircraft weight, making more optimal use of the airspace and training our pilots to use the most fuel-efficient procedures. Safety, of course, always remains priority. Besides that, we support a common European airspace, which would open up more efficient flight paths. Being able to fly directly from A to B without detours could reduce CO₂ emissions by as much as 10% across Europe.

- **Replacing fossil fuels:** Sustainable biojet fuel can make an important contribution in the medium to long term. This fuel can reduce CO₂ emissions by up to 80%, compared to fossil fuels. Our partners in [the Corporate BioFuel Programme](#) enable us to bridge the price difference between fossil fuel and sustainable biokerosene. We only use biokerosene made from waste oils, or raw materials that do not impact biodiversity and food production. Furthermore, we support sustainable, alternative modes of transport for short distances. Travelling by train is a good alternative for many European destinations, like Brussels, London, or Paris.
- **Compensating CO₂ emissions:** We are part of the [EU Emissions Trading System \(ETS\)](#) which regulates CO₂ compensation and CO₂ emissions allowances in Europe. KLM also falls under the global aviation treaty [CORSIA](#). This treaty aims to achieve carbon-neutral growth in the global aviation industry from 2020. As of 2008, it's also possible for passengers to compensate their share of the carbon emitted by their flights through [KLM's CO2ZERO](#). This compensation service invests in sustainable projects in developing countries. It also ensures that projects do more for the responsible management of natural resources and create a positive impact on local communities.
- **Sustainable ground operations:** We strive to minimise the impact of our ground operations at Amsterdam Airport Schiphol. We do this by being more energy efficient, electrifying as much

ground equipment as possible, finding alternatives for fossil gas and, wherever possible, transitioning to renewable energy. An advantage of moving to electric ground transport equipment, such as baggage carousels, trailers and loaders, is that they do not produce emissions locally. Moreover, electric transportation equipment at Schiphol airport uses green electricity, contributing to a cleaner environment and better working conditions at the airport.

Read more on: www.klmtakescare.com