The aviation industry has a long track record for delivering fuel efficiency improvements. The sector has been one of the leading sectors in terms of CO₂ efficiency improvements and has significantly outperformed the wider economy. Since 1990, commercial aviation has improved its CO₂ performance by 49% measured in terms of CO₂ emissions per revenue tonne kilometer. Over the same time period economy wide CO₂ performance improved by 26% - meaning that aviation outperformed the broader economy by 23 percentage points.

Since 2009, the aviation sector has had a common set of goals for taking climate action and is meeting these goals through:

1. 1.5% average per annum fuel efficiency improvement until 2020, followed by;
2. Stabilizing net CO₂ emissions from aviation after 2020; and
3. Cutting net CO₂ emissions by 2050 to half of what they were in 2005

These goals will be met through the implementation of the industry four pillar strategy that includes actions across four pillars: infrastructure, operations, technology (including sustainable alternative fuels) and a global market based measure.

The 39th Assembly of the International Civil Aviation Organization (ICAO) has agreed on a global market-based measure in the form of a Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) for addressing CO₂ emissions from international civil aviation.

Phased implementation of the scheme is envisioned where initially a pilot phase is introduced from 2021 through 2023 for volunteering states that wish to be the first to pilot CORSIA. The pilot phase offers an opportunity to gain important experience and knowledge in operating an offsetting scheme. The pilot phase is followed by the first phase from 2024 through 2026, for States that choose to voluntarily participate in implementation of CORSIA. Subsequently, the second phase will apply from 2027 through to 2035 and will be mandatory with some exemptions granted.

Source: IATA, World Resources Institute