



# FACT SHEET: AVIATION'S CLIMATE ACTION FRAMEWORK

PROACTIVE CLIMATE ACTION FROM A KEY GLOBAL SECTOR THROUGH  
3 GLOBAL GOALS UNDERPINNED BY AN INDUSTRY-WIDE 4-PILLAR STRATEGY.

## GOAL 1

1.5% AVERAGE ANNUAL FUEL EFFICIENCY IMPROVEMENT FROM 2009 TO 2020.

### PROGRESS:

Currently tracking well above goal, although figure expected to normalise.

### HOW?

Through the first three pillars of climate action.



## GOAL 2

STABILISE NET AVIATION CO<sub>2</sub> EMISSIONS AT 2020 LEVELS THROUGH CARBON-NEUTRAL GROWTH.

### PROGRESS:

Industry is pushing for action at an intergovernmental level.

### HOW?

All four-pillars, including a global MBM developed at the International Civil Aviation Organization (ICAO)



## GOAL 3

REDUCE AVIATION'S NET CO<sub>2</sub> EMISSIONS TO 50% OF WHAT THEY WERE IN 2005, BY 2050.

### PROGRESS:

Significant research efforts underway, scaling-up of alternative fuels has begun.

### HOW?

Two main areas of action: sustainable alternative fuel and radical new aircraft and engine technology.



TECHNOLOGY  
(incl. SUSTAINABLE ALTERNATIVE FUELS)

- Each new generation of aircraft reduces emissions 15-20%.
- Airlines have been replacing old models with new efficient aircraft – over 8,245 since 2009 at a cost of \$1 trillion.
- Manufacturers of aircraft and engines spend \$15 billion a year on research to produce more efficient aircraft.
- Governments, industry working on CO<sub>2</sub> Standard for aircraft.
- Sustainable alternative fuels could cut CO<sub>2</sub> by up to 80%.
- Over 2,000 alternative fuel flights have taken place so far.



OPERATIONS

- Aircraft already in service can have efficiency measures, such as wingtip devices, added to cut their emissions.
- Lightweight seats, food trolleys and cargo containers can help reduce fuel-burn and emissions.
- Using new satellite navigation technology can significantly cut emissions from the landing and take-off cycle.
- Airports, airlines and air traffic control work collaboratively.



INFRASTRUCTURE

- Airports are using alternative energy for ground equipment and to illuminate and heat terminal buildings.
- Air traffic management providers routinely work with airlines to shorten routes or use flexible routing to cut CO<sub>2</sub>.
- More systematic airspace changes need to be implemented (such as the Single European Sky) which could help reduce aviation emissions significantly.



A GLOBAL MARKET-BASED MEASURE

- Once the first three pillars have been explored, market-based measures can help bring down aviation emissions to the desired levels.
- Any MBM for aviation must be global in nature, ensuring fairness and undistorted competition between airlines.
- Industry is working with governments to pursue this under the auspices of ICAO (see timeline to the left).

2009	Industry presents governments with a pathway to emissions reductions, through ambitious goals and a four-pillar strategy which includes a global sectoral market-based measure (MBM) to be developed through ICAO.
2013	ICAO Assembly 38: governments agree to develop the modalities for a global MBM for aviation » Governments, industry work on technical and political elements of an MBM.
2016	ICAO Assembly 39: proposal for global MBM to be presented to ICAO member states » Governments, industry prepare for implementation of MBM.
2020	Global MBM for aviation starts operating, carbon-neutral growth ensures aviation can continue to provide economic and social benefits, whilst stabilising net CO <sub>2</sub> emissions.