

# AVIATION & CO<sub>2</sub> EMISSIONS: FACTS & FIGURES

### Aviation's role in the UK

Aviation's benefits are substantial and reach far into our economy and society. Air travel enables people to take a well-earned break, connects families and friends from across the world and allows businesses to reach a global market.





of non-EU trade by value travels by air



75%

of visitors to the UK travel by air



£1bn+

a week generated towards GDP



1M

jobs in aviation & aerospace



passengers travelled through UK airports in 2018

Like all transport modes, aviation has an impact on the environment. UK aviation is committed to reducing this impact. Sustainable Aviation (SA) was set up in 2005 by airlines, airports, aerospace manufacturers and air traffic service providers to work together towards our common goal of cleaner, quieter and smarter aviation.

This work has already yielded impressive results, with new technology and smarter operations meaning UK aviation growth has now been decoupled from growth in emissions.

#### Global CO<sub>2</sub> targets for a global industry

In 2009, international groups representing airlines, manufacturers, airports and air navigation service providers agreed a set of industry goals:





Average fuel efficiency improvement of **1.5%** per annum 2010 to 2020

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Carbon neutral growth from 2020



Aspirational goal of **50%** net reduction of CO<sub>2</sub> emissions in 2050 relative to 2005

#### UK aviation's CO<sub>2</sub> record to date

We have de-coupled aviation growth from growth in emissions:



Between 2010-2016, passenger numbers in the UK grew by **25.8%** 



While total emissions only grew by **4.7%** 



Sustainable Aviation airlines have improved their fuel efficiency by **13.7%** since 2005

## UK aviation's CO<sub>2</sub> Road-Map

The Sustainable Aviation CO<sub>2</sub> Road-Map (2016) sets out how the UK could achieve the international goal in 2050 while meeting the growing demand from consumers and businesses for air travel.

CO2 reduction and mitigation opportunities include:

- Improvements in air traffic management and operational practices, such as airspace modernisation
- The introduction into airline fleets of new, improved airframe and aero-engine technology
- The continued R&D investment in cleaner and quieter aircraft, including hybrid and electric aircraft
- Sustainable fuels for aviation
- The potential to halve remaining CO<sub>2</sub> emissions by 2050 through the global carbon offset and reduction scheme for international aviation (CORSIA)

A world first: UK Government and industry were instrumental at the International Civil Aviation Organization (ICAO) in setting up the first global industry-focused emissions deal, CORSIA. CORSIA aims for carbon-neutral growth from 2020.



Airspace modernisation could deliver a reduction of up to **14%** in emissions by 2050



360 new aircraft are currently on order by UK airlines, which will improve the fleet-average fuel efficiency of UK aviation by **22%** by 2050



Sustainable aviation fuels could deliver a reduction in emissions of up to **24%** 



#### CO<sub>2</sub> Road-Map for UK Aviation



### How can industry and Government work together?

The Government's planned Aviation Strategy should set out a clear partnership for sustainable growth, including:

• Continued Government support for airspace modernisation

• The SA Sustainable Fuels Road-Map Update will set out how Government can support industry efforts for the commercialisation of sustainable aviation fuels in the UK

• Aligning the Aerospace Sector Deal and Aerospace Growth Partnership with the Aviation Strategy, supporting R&D in green aviation technology and jobs

#### Potential for hybrid and battery-electric aircraft



Source: IATA



SUSTAINABLE AVIATION