

# Aviation Industry Commitment to Action on Climate Change: 3 Goal Approach

## GOAL 1

PRE-2020 AMBITION

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

T O I

## GOAL 2

IN LINE WITH THE NEXT UNFCCC COMMITMENT PERIOD

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

T O I + M

## GOAL 3

ON THE 2°C PATHWAY

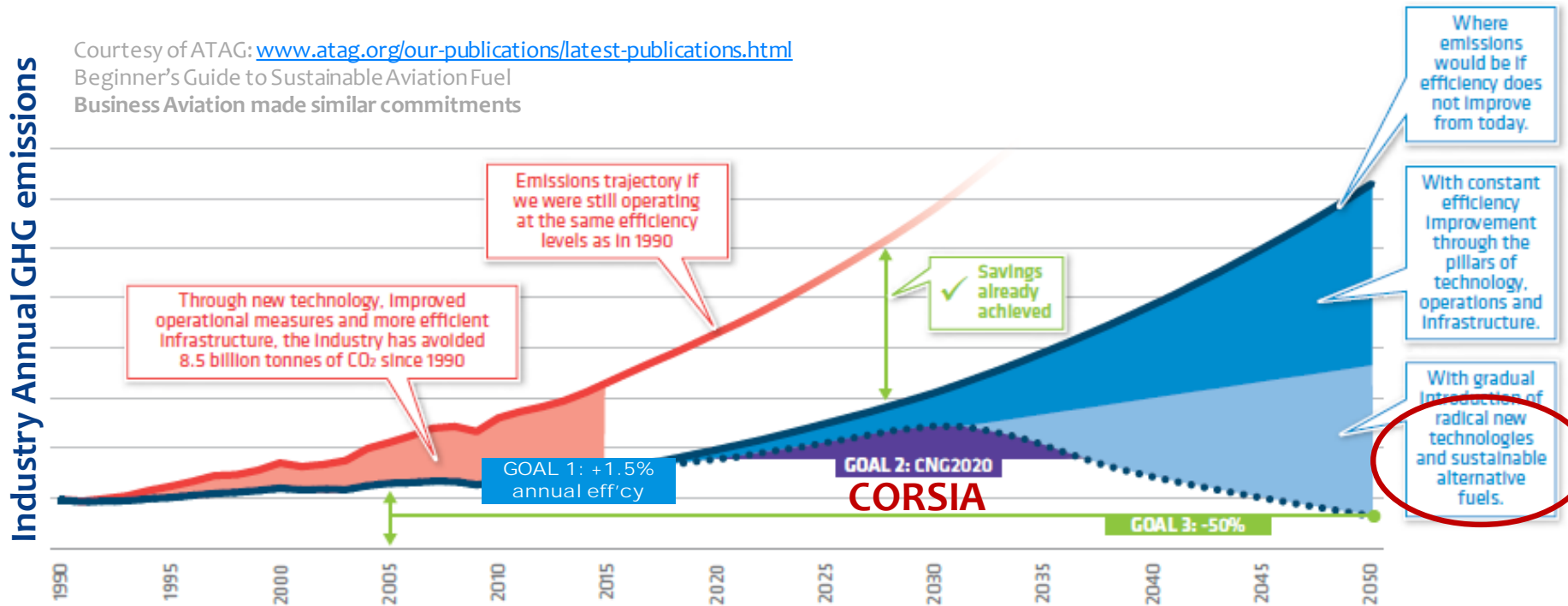
REDUCE AVIATION'S NET CO<sub>2</sub> EMISSIONS TO 50% OF WHAT THEY WERE IN 2005, BY 2050.

T O I

Four Pillars of the Commitment:

Technology, Operations, Infrastructure, and Market-Based Measures

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**SAJF a key component of the Technology Pillar;  
 enabler for GHG containment strategy**

# SAJF offtake agreements

## Beyond numerous demonstration programs

neat quantities



# SAJF offtake agreements

## Beyond numerous demonstration programs

neat quantities



3 M gpy each, 7 yrs  
(Bay Area, CA)



A350 deliveries  
10% blend (ex-TLS)



10M gpy, 10 yrs (JFK)



4M gpy, 10 yrs (LAX)



Up to 1M gpy, 5 yrs+



Brisbane Supply  
Demonstration

*These offtakes/efforts represent >250 M gpy, and account for the total production slate of the first several commercialization efforts*

# Other recent announcements

effort



BRITISH AIRWAYS 
  
 In negotiation

MSW-based FT-SPK evaluations  
BTL #1, Natchez, MS  
1,400 bpd



American Airlines DALLAS FORT WORTH INTERNATIONAL AIRPORT

SAJF Supply exploration

MOU to design & implement adoption

Collaboration on supply expansion



Carinata supply development



SAJF Supply collaboration



# Other recent announcements

effort

**DG Energy**



0.5M gpy, 10 yrs

Multiple Producers, TBA



Full production slate offtakes



Gothenburg Refinery



**SAS**



Long-term supply negotiation (from 2023). Fueling all domestic flights by 2030.



UK DfT F4C Funding: ATJ Development  
Demo flight MCO-LGW

TBA



**FINNAIR**



Customer funding of SAJF purchase from 2019

Multiple Producers & Suppliers



Airports and Airline Tenants



Exploration of Greater ambition

# Commitments of Greater Ambition



First U.S. Airline to Pledge to Reduce Own Emissions by 50 Percent (vs. 2005) by 2050; 13Sep'18



Obtain 30% of jet fuel from alternative sources by 2030; 06Nov'17



Norway's government introduces 0.5% blending mandate for advanced aviation biofuels from 2020; 04Oct'18



Moving forward with \$350M expansion to enable 306M gpy total capacity, including infrastructure for jet capacity of 150M gpy; 24Oct'18



Netherlands committed to transition all military aircraft to 20/80 AJF blend by 2030 and 70% by 2050