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The Role of Sustainable Aviation Fuels

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22nd May, 2019



Our Signatories...





**Tackling
global
aviation
emissions**



Why sustainable fuels? Tackling global aviation emissions

3 GLOBAL GOALS

4 PILLARS OF CLIMATE ACTION



Setting the global strategic direction

GOAL 01
PRE-2020 AMBITION

1.5% annual average fuel efficiency improvement from 2009 to 2020.

T O I

GOAL 02
IN LINE WITH THE NEXT UNFCCC COMMITMENT PERIOD

Stabilise net aviation CO₂ emissions at 2020 levels with carbon-neutral growth.

T O I + M

GOAL 03
ON THE 2°C PATHWAY

Reduce aviation's net CO₂ emissions to 50% of the 2005 level, by 2050.

T O I



Four pillars making improvements across the whole system

Technology & sustainable fuels

T

Operations

O

Infrastructure

I

Market-based measures

M



Sustainable aviation fuel deployment

5
pathways
certified so far

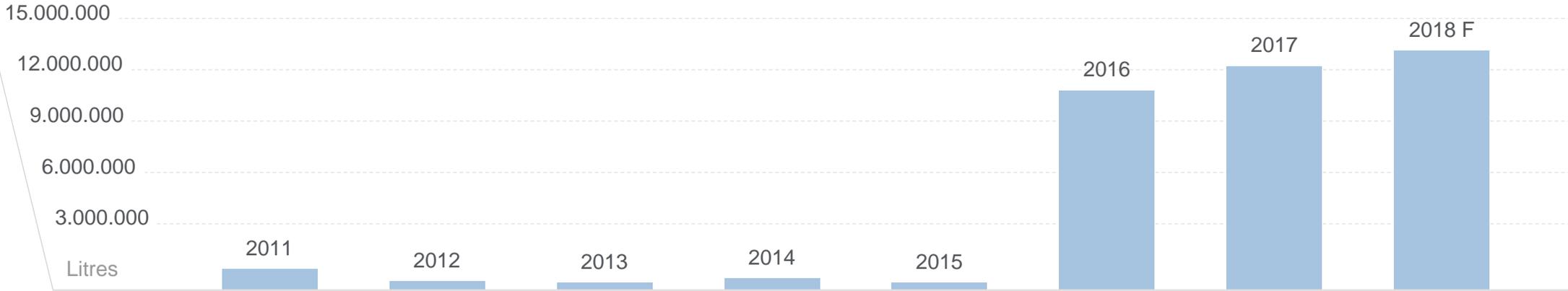
6
billion
litres of SAF in
forward purchase
agreements

9
airlines
with significant
forward purchase
agreements

185,000
commercial SAF
flights since 2011

5
airports

Production ramp-up in sustainable aviation fuel will continue, annual estimates

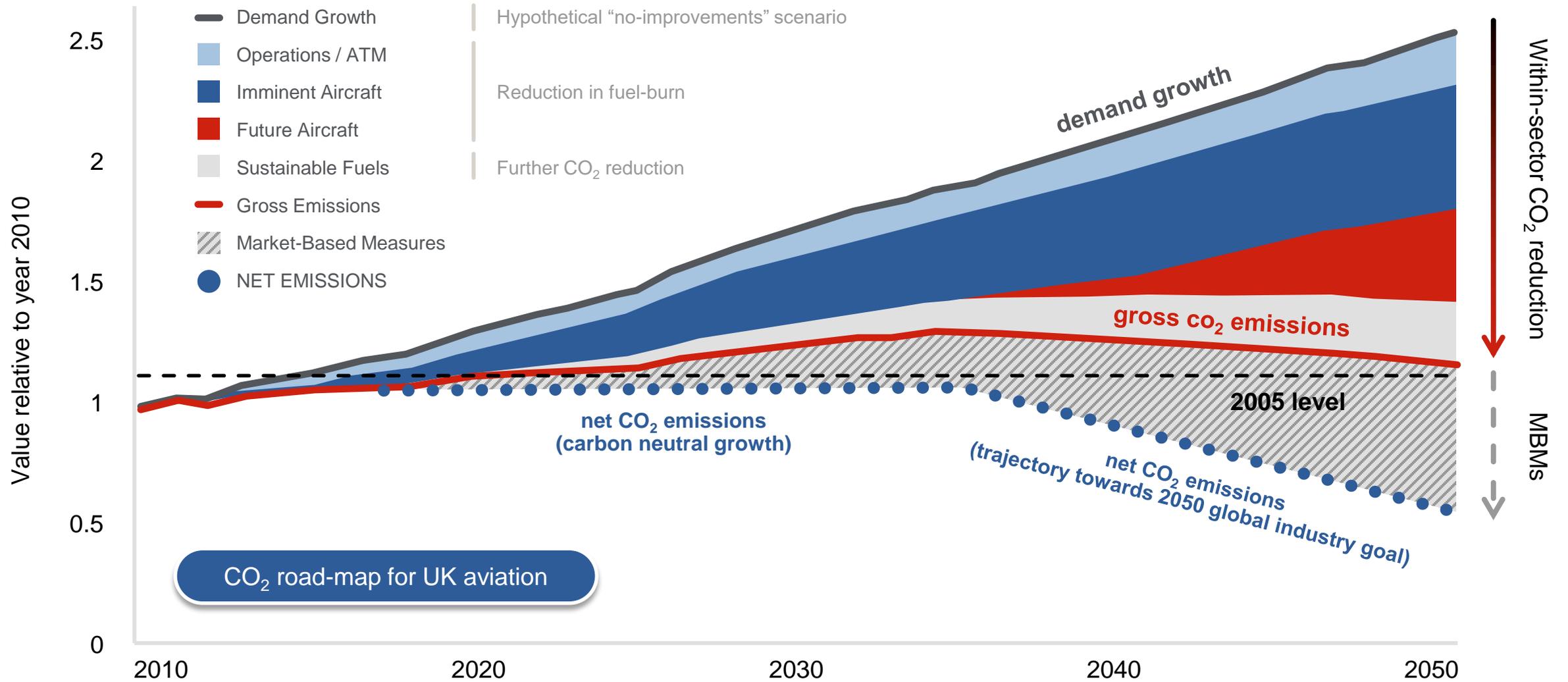




The UK picture



UK carbon roadmap to 2050



Vision



UK can lead the world in the development and production of sustainable aviation fuels



Sustainable aviation fuels will play a key role in decarbonising the industry



We set a challenge to UK universities to develop a proposal for a pathway to achieve global leadership around this critically important opportunity and beyond



There are a number of projects that should be taken forward as they can play a key role in helping the UK lead the world in the development and deployment of sustainable aviation fuels



Vision – Why the UK?



We have the skills



We have available feedstocks



We have many potential sites



We have high demand for the final product



We have Government support



We have world class academic institutions



Sustainable aviation fuel road map (UK)

By 2030



£265m
Gross added value



Up to 12
operational plants



£220m
export value



4,400
Jobs

2014 2020 2030 2040 2050

Biomass to liquid
Alcohol to jet green
diesel

Pyrolysis fuels
Sugar to jet
including SIP

Novel
Hydro
routes

HEFA from
algae
Biotech
conversion
routes

Evolution of sustainable fuel technologies →



4.5 million
tonnes per annum



1.5 million
tonnes per annum



0.7 million
tonnes per annum

Sustainable fuel volumes

18-24%
reduction in CO₂ from UK
aviation potential by supporting
use of sustainable aviation fuels
in the UK. UK airlines currently
supporting landfill waste and
waste gas to jet fuel
innovations.





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Thank you

