Sustainable Aviation Fuels
A UK Perspective

Leigh Hudson – International Airlines Group

- Formed in January 2011, IAG is the parent company of Aer Lingus, British Airways, Iberia and Vueling
- IAG combines leading airlines in Ireland, the UK and Spain, enabling them to enhance their presence in the aviation market while retaining their individual brands and current operations
- It is a Spanish registered company with shares traded on the London Stock Exchange and Spanish Stock Exchanges. The corporate head office for IAG is in London, UK

€23.96bn	286.1bn	94.7m	274	529
REVENUS	ASKs	PASSENGERS	DESTINATIONS	AIRCRAFT

Aer Lingus BRITISH AIRWAYS IBERIA vueling

* The above data represent the sum of BA, EI, IB, VY 2014 figures. Aer Lingus was acquired on 18 August 2015.

First International Commercial Flight 25.08.1919

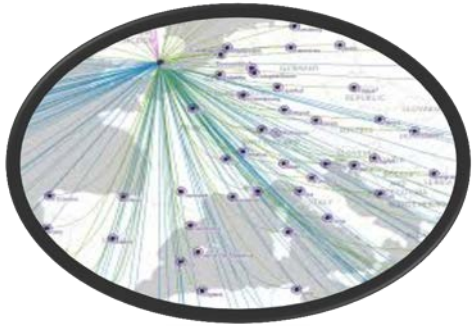
ADS
AOA
BATA
NATS
Abertis
Airbus
BAA
Bristol Airport
ADS
Belfast
Birmingham
BMI
Bombardier
AIRBUS
BAE Systems
BOEING
British Airways
Cobham
Doncasters
Easyjet
FAC
Flybe
Gatwick
GE Aviation
gkn
Heathrow
Leeds Airport
London City
MAG
Marshall
Meggitt
Messier-Dowty
Monarch
Newcastle
Peel Group
Prestwick
Qinetiq
Rolls Royce
Thomas Cook
TUI Travel PLC
More than a smile
TUI Travel
Virgin Atlantic
WEAF
UTC Aerospace Systems
Thomas Cook Airlines

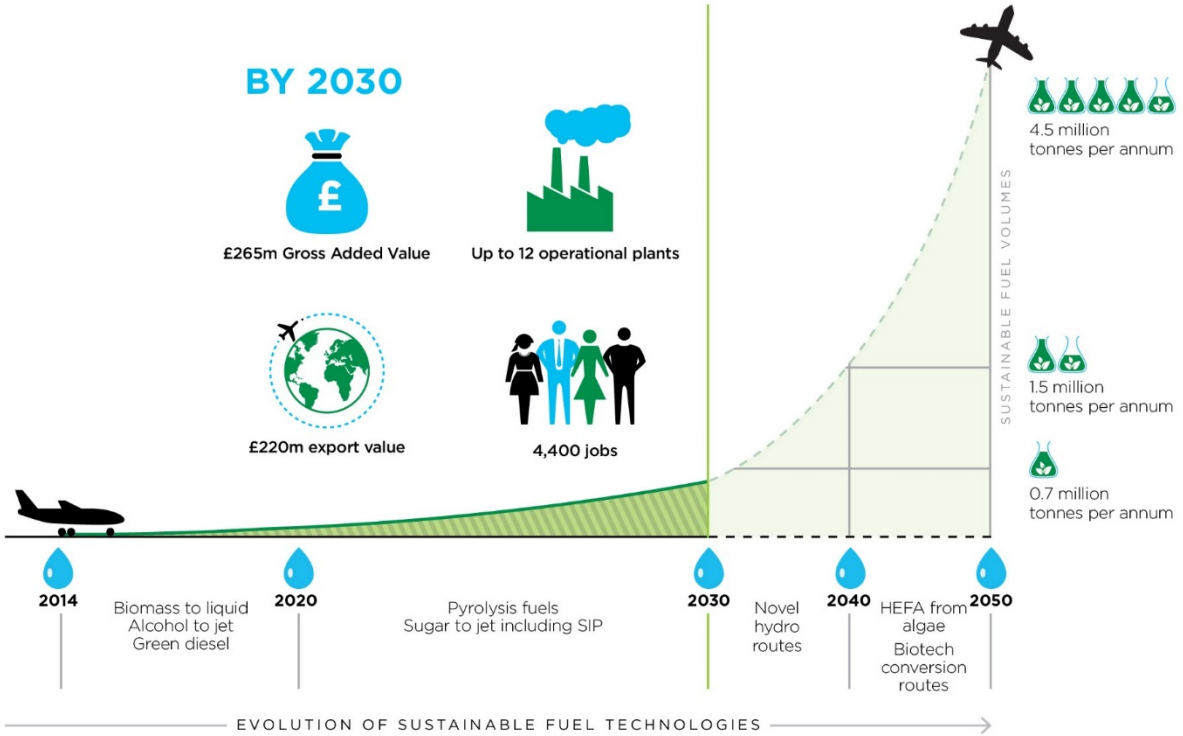
SUSTAINABLE AVIATION
Cleaner. Quieter. Smarter.

Sustainability is the key deliverable

What technologies will be possible?
How much fuel will we need to meet the emission reductions we outlined?
What fuel can be manufactured in the UK?







UK Trajectory to meet 2050 GHG emission targets

- Global aviation potential - 13 million tonnes of production in 2030
- Aviation fuels produced in combination with other fuels/products
- To achieve a 24% reduction in CO2 emissions in 2050, these production rates would requires an annual growth of 14 to 18% after 2030 ~ slightly lower growth rates than those seen in road transport fuels

- Advantages:
- Biorefineries – addresses decline in smaller-scale fossil refining
- Energy security
- Can use low value wastes and residues to create high value end products – fuels, chemicals.

Technology Development Hurdles

- Many technologies in early stages of development
- Commercial finance - too risky
- We need innovative partnerships to share in the risk
- Airlines are taking the lead and working with technology providers
- Public-private partnerships are needed
- Policy support – long term
- Bankable
- **Policy support is essential**

- Many states have policies to promote renewables in electricity – less in transport and often aviation fuels are excluded
- Bridging the gap between the market price of fossil fuels and the cost of sustainable fuels is needed

Using regional blending mandates - higher fuels prices in a region causes competitive distortion and can increase emissions – Opt in – USA, Netherlands

UK Example:
Aviation fuels designated “Development fuels” and given a higher level of incentives – producers can opt in.

Can we achieve a win-win?

- There are opportunities here
- This is a long term journey and we cannot make it overnight
- These changes will need to be policy driven
- Carbon pricing is an essential element for aviation to meet its climate commitments but sustainable fuel development needs to run in parallel
- Bringing new technologies to scale is important in the next 10 years to ensure that we can scale up production over time

What Policy Changes are Needed?

- For states to work with industry to form public-private partnerships - to de-risk investment and support scale up of first of a kind technologies
- Policy support needs to extend over the long term and be "bankable" – to promote investment
- For states to recognise the strategic value of sustainable aviation fuels within evolving energy/transport/industrial strategies and to integrate aviation fuels into these policies