REALISING THE POTENTIAL

The UK should build on its leadership in global aerospace and aviation to capitalise on the emerging sustainable fuels market to reduce emissions, create jobs and bolster investments in science and technology.

FORGING A PERFECT PARTNERSHIP

SA recommends the establishment of a public–private sector initiative to progress this shared vision.

DELIVERING SUCCESS

Long-term policy stability and financial support for the scaling-up and rollout of sustainable fuel production capacity will also be needed. SA recommends that the UK:

- Create a level playing-field for aviation by allowing sustainable fuel producers to claim Renewable Transport Fuels Obligation certificates for aviation fuels to bring these in line with road transport fuels
- Assist project finance through existing institutions such as the Green Investment Bank, which involves the Government underwriting risk at different development stages.
- Give priority to dedicated research and development (R&D) into sustainable fuels. Some countries are already providing R&D support for new feedstock sources and processing technologies to reduce fuel cost.

ABOUT SUSTAINABLE AVIATION

Sustainable Aviation is a unique alliance of the UK's airlines, airports, aerospace manufacturers and air navigation service providers. Together we drive a long-term strategy to deliver cleaner, quieter, smarter flying. SA is the first alliance of its kind in the world and reports regularly on progress in reducing aviation's environmental impact. For a full list of members see: **www.sustainableaviation.co.uk/about/signatories**

COLLABORATING TO INNOVATE

Industry is rising to the challenge. SA members are currently developing a number of sustainable fuel initiatives globally. We believe that a successful UK industry is possible with the right long-term policy support. Success of these and future projects is dependent on SA continuing to work with the Government to create a shared vision for sustainable aviation fuels.

AIRBUS	Airbus is working with a number of global partners to develop Low Indirect Land Use Change feedstocks.
BRITISH AIRWAYS	The British Airways-Solena Greensky London project will convert half a million tonnes of waste p.a. into sustainable fuels.
BOEING	Boeing's green diesel project has a potential global supply of 800m gallons p.a. for aviation.
Rolls-Royce	Rolls Royce has worked with the USA CLEEN programme to develop innovative test methods for early stage novel fuels.
Thomson Airways	Thomson has operated commercial flights from the UK using sustainable fuels sourced from waste cooking oils.
virgin atlantic	Virgin Atlantic and LanzaTech's partnership to convert waste gases from steel mills into sustainable aviation fuels is at demonstration scale in China.

www.sustainableaviation.co.uk
020 7799 3171
info@sustainableaviation.co.uk

SUSTAINABLE AVIATION
Cleaner. Quieter. Smarter.

Sustainable Fuels UK Road-Map

www.sustainableaviation.co.uk

The UK's aerospace and aviation industries are important contributors to the UK economy. The UK has the largest aerospace sector in Europe and UK aviation sustains around 1 million jobs and contributes £50 billion GDP to the UK economy.

UK POTENTIAL

Sustainable Fuels Road-Map

(High scenario)

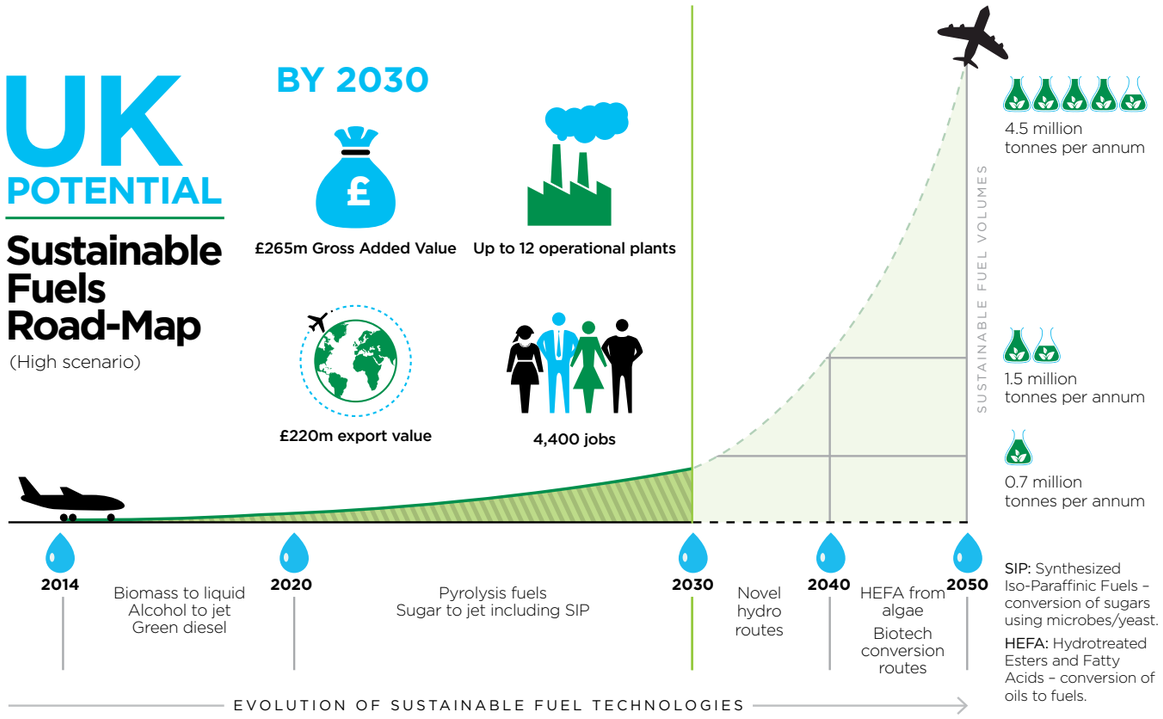
BY 2030

£265m Gross Added Value

Up to 12 operational plants

£220m export value

4,400 jobs



Sustainable Aviation (SA) is committed to working collaboratively to find sustainable solutions for the aviation sector. In 2012 SA developed a CO_2 Roadmap which gave initial estimates of the impact of sustainable fuels on UK aviation's carbon emissions. Progress to develop new fuel pathways has been rapid, with three fuel pathways fully approved for use in commercial aviation.

To fully explore the potential of this emerging sector, SA has commissioned new independent research by sustainable energy consultants E4tech.

E4tech
Strategic thinking in sustainable energy

The UK could reduce the carbon-intensity of aviation fuels, reduce reliance on oil imports and boost the UK economy by developing sustainable fuels for aviation.

THE POTENTIAL

The UK could have between 5 and 12 operational plants producing sustainable fuels by 2030.

The UK could generate a Gross Value Added (GVA) of up to £265 million in 2030 through the production of sustainable fuels.

Developing a sustainable fuel industry in the UK could support up to 3,400 direct jobs, and a further 1,000 jobs could be generated in global exports.

Production of sustainable aviation fuels will be alongside other high value products and transport fuels.

Sustainable fuels can contribute 24% CO_2 emissions savings in the UK aviation sector by 2050 as indicated by the CO_2 Roadmap.

SUSTAINABLE AVIATION

Cleaner. Quieter. Smarter.

BY 2050

these fuels could reduce the UK's aviation emissions by **up to 24%**

CREATING 4,400 JOBS

if government policy is supportive

£265m GROSS ADDED VALUE BY 2030

SUSTAINABLE AVIATION FUELS

Are a reality. There are three types of fuel approved for use in aviation

Can deliver credible carbon reductions towards long-term carbon targets

5 - 12 plants could be built by 2030

They deliver **high CO_2** savings and do not cause Indirect Land Use Change

Public-Private partnerships are needed to bridge the "valley of death"

The UK could become exporters of these technologies

There is potential for these fuels to be produced here in the UK

Other countries are supporting low carbon fuel technologies

Aviation fuels need a level playing field with other fuel and energy incentives

SA wants to work with the UK government to create a vision for advanced fuels for aviation

The UK can build on its expertise in science and technology.

Policy support is needed to help these innovative projects get to commercial scale and to build confidence in emerging technologies

SA fuels produced in the UK would **reduce our dependence** on fossil fuels

Sustainable Aviation is **working in collaboration** to develop some of these technologies

These technologies can use a whole range of materials to make fuels, including wastes and residues