



SUSTAINABLE AVIATION
CLEANER | QUIETER | SMARTER

A MANIFESTO FOR
**UK LEADERSHIP
IN SUSTAINABLE
AVIATION**





OUR COMMITMENT TO NET ZERO, MORE EFFICIENT AND QUIETER FLIGHT

Sustainable Aviation is a coalition of UK airlines, airports, aerospace manufacturers and fuel producers all committed to delivering net zero aviation by 2050 and to minimising the impact of aviation noise.

Sustainable Aviation strongly believes that the aviation sector's long-term future is underpinned by progress towards net zero. In 2023 we published our Net Zero Carbon Road-Map which demonstrated how the UK can be a world-leader in green aviation technology, from the production and use of sustainable aviation fuels (SAF) and zero-emission hydrogen powered aircraft, to the use of carbon removal technologies to capture residual emissions. Net zero aviation can create tens of thousands of new jobs across the UK without pricing ordinary people out of flying. With the right policy, regulatory and investment environment our world leading aerospace and aviation sectors can build on their commitment and progress to make net zero flight a reality.

In 2024 Sustainable Aviation will be publishing our updated Noise Road-Map, showing how aviation will be able to further lower overall noise from aircraft operations between now and 2050.

A TRANSFORMATIVE DECADE

The next Parliament has the potential to set UK aviation on an exciting path to net zero carbon flight and lower levels of aviation noise.

There are several important steps required to deliver this. Firstly, we must be more efficient in the air. This means more efficient engines burning less fuel and more efficient use of airspace. Second, the transfer to affordable sustainable aviation fuels is an absolute necessity alongside new, zero carbon emission flight technologies and, thirdly, we must ensure we have the required energy to power the transition, alongside carbon capture and storage infrastructure required to hit net zero. To make this reality we are calling on the next Government to:



Accelerate the airspace modernisation programme to make more efficient use of flight paths that complement operational efficiencies of jet engines, and help deliver immediate noise and carbon benefits.



Deliver commercial UK Sustainable Aviation Fuel production at scale this decade with at least five UK SAF plants under construction in 2025 to ensure the UK is well placed to take early mover advantage of SAF production and supply.



Strengthen the UK's position as a world-leading innovator of aerospace technologies that give the UK a competitive advantage in aviation efficiency and in the development and commercialisation of new technologies.



Accelerate the rollout of carbon removal and carbon capture and storage technologies to mitigate residual aviation carbon emissions, by including removals in the UK ETS scheme and ensuring aviation's fair share.



Secure capacity to meet the required energy demand to deliver UK aviation's transition to net zero – UK aviation will require around 150 - 200TWh in additional low cost, low carbon electric capacity dedicated to aviation by 2050.



CAPTURING THE ECONOMIC PRIZE



**£22
BILLION**

UK aviation supports one million jobs and contributes **£22bn a year** to the economy.

As an island nation, aviation is the cornerstone to connecting the UK to the global economy facilitating trade, investment and enabling millions of us to visit friends and family overseas, do business and explore. Aviation will be critical to igniting UK economic growth, particularly in high-value tradable services and high-value goods exports which rely on just-in-time delivery.

However, acceleration is needed if we are to remain a competitive global aviation hub and capture the new opportunities of net zero flight, in the face of strong competition from overseas competitors who are seeking to corner the market on exciting new technologies and reduce costs for their own domestic consumers. By playing to our existing strengths as an aviation nation, our transition to net zero flight will not just safeguard and grow this contribution but could create thousands of new UK jobs.



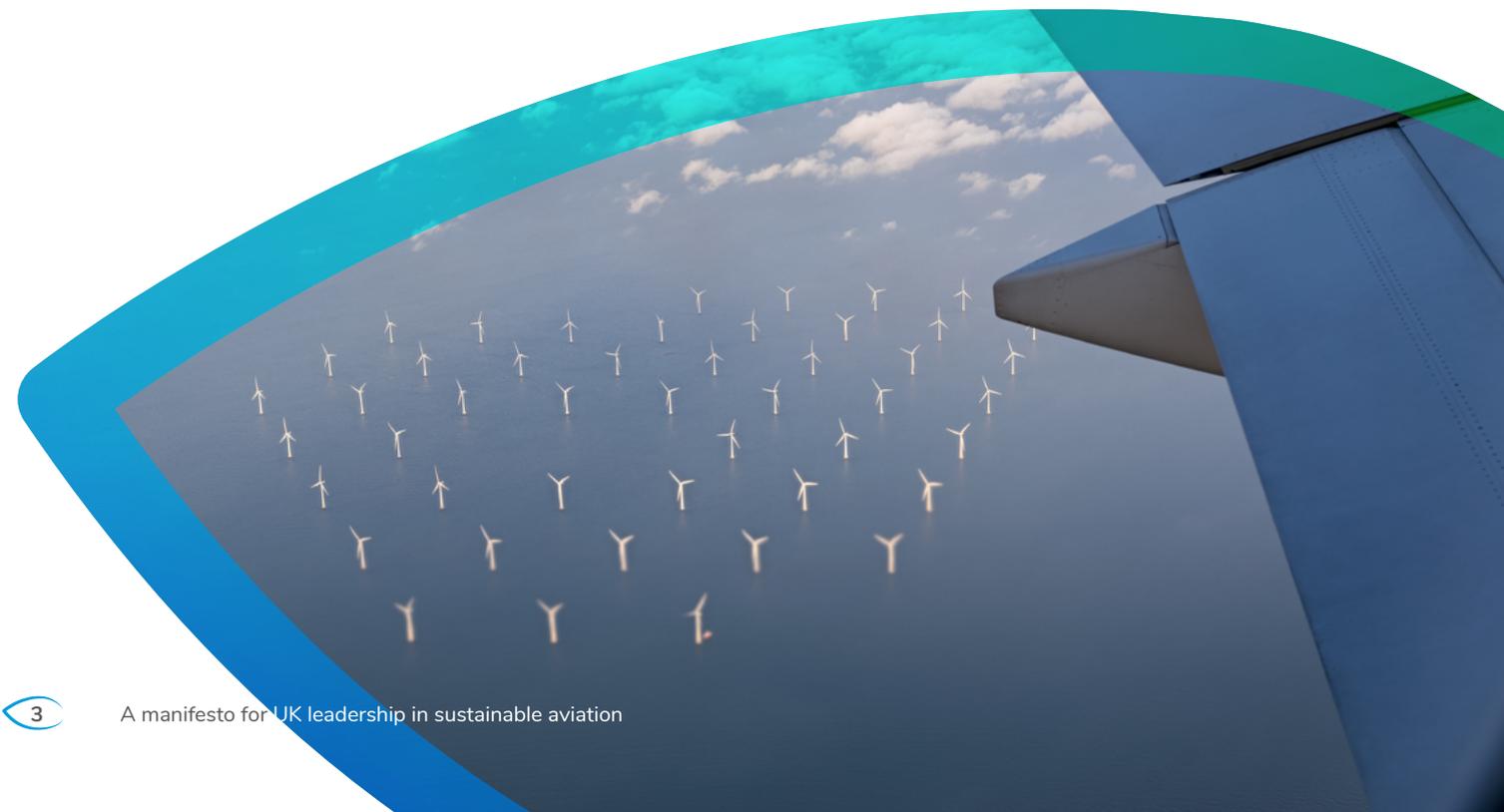
**10,000
NEW JOBS**

10,000 new jobs could be created in a UK SAF industry by **2030**, across our former industrial heartlands, rising to **60,000 jobs and £10bn of GVA by 2050**. A homegrown UK SAF industry would deliver stable energy supply, making the UK less susceptible to the volatility of global markets.



**£37
BILLION**

UK aerospace's economic contribution could increase from **£8.4bn today to over £37bn by 2050**.

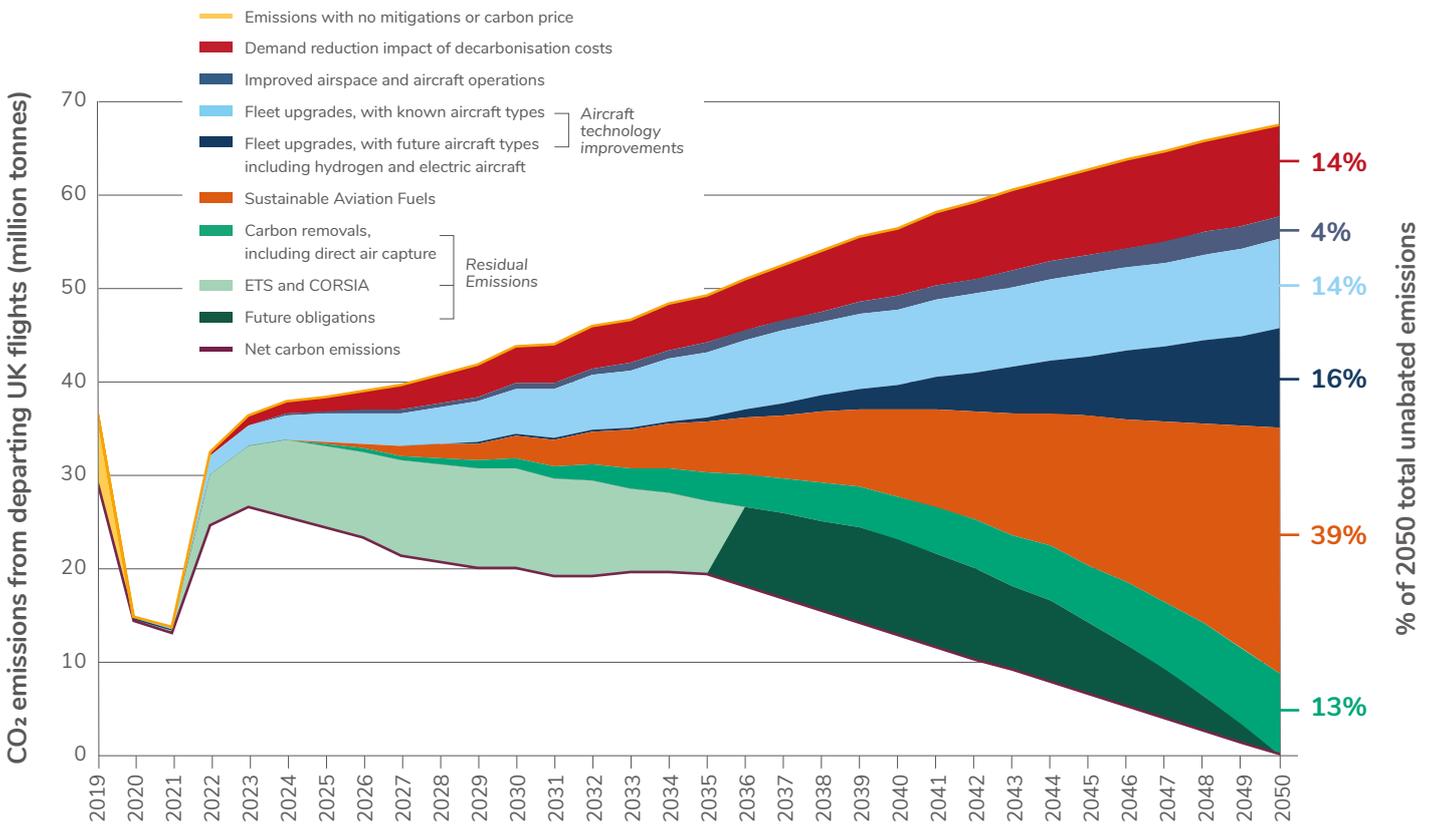




AVIATION'S NET ZERO CARBON ROAD-MAP

Our Road-Map highlights the vital role and potential for SAF and zero carbon emission technologies such as hydrogen powered aircraft and carbon removal technologies, together with the immediate advances being made in modernising airspace, helping UK aviation reach net zero by 2050.

Our Road-Map shows that the UK will be able to accommodate significant growth in passengers through to 2050 whilst reducing emission levels from just under 40 million tonnes of CO₂ per year down to zero – supporting many new jobs in the UK renewable and low carbon economy. This achievable without the need for demand reduction policies and changes to our way of life, taking account that the costs of the net zero transition will result in slightly lower demand than if no changes were made, but will not price ordinary people put of flying.





POLICY PRIORITIES FOR THE NEXT GOVERNMENT



Deliver commercial UK Sustainable Aviation Fuel production at scale this decade with at least five UK SAF plants under construction in 2025 to ensure the UK is well placed to take early mover advantage of SAF production and supply

- Accelerate the timetable to deliver a government-backed SAF revenue support mechanism, by introducing primary legislation in the first King's Speech to ensure commercial UK SAF production is delivered at scale over the next Parliament
- Use this as a catalyst to establish a pipeline of investment for SAF production, including the supply of '2nd Generation' advanced SAFs ahead of delivery of power-to-liquid SAF that will provide efficient sustainable fuel in the medium to long-term
- Ensure aviation has a fair share of UK sustainable feedstocks for planned '2nd Generation' advanced SAFs by amending the DEFRA waste hierarchy to prioritise SAF as an energy recovery pathway for waste
- Reduce the cost of available SAF in the UK to bring it closer to the cost of jet fuel, with support at least in proportion to that being provided to EU airlines by the European Union via Emissions Trading Scheme free allowances



Strengthen the UK's position as a world-leading innovator of aerospace technologies that gives UK competitive advantage in aviation efficiency and the development and commercialisation of new technologies, including hydrogen

- Commit to uplifted, ten-year long-term R&D support to 2035 through the ATI programme to drive further development of lower noise, ultra-efficient and ZEF technologies
- Ensure the investment and regulatory environments secure the UK's leading position on sustainable aviation power propulsion including hydrogen and sustainable fuel compatibility, to support scale-up, industrialisation and delivery of required infrastructure
- Ensure the CAA is effectively resourced to lead on the development and certification of novel low and ZEF technologies including hydrogen to enable safe and timely entry-into-service, with a clear remit and direction from Government to support the sector deliver net-zero



Accelerate the airspace modernisation programme with Government support to remove obstacles to early completion

- Ensure industry input into a delivery programme that supports faster completion. Modernisation is the industry's most immediate means to reduce passenger delays, increase capacity, and deliver to carbon and noise reduction targets
- Encourage collective industry commitment with sustained Government support to foster close collaboration and realise early noise and carbon benefits



Progress longer-term objectives that will be critical to success of the Net Zero Aviation by 2050 by securing capacity to meet the required energy and carbon removals demand to deliver UK aviation's transition to net zero

- Align on a strategic plan to ensure the UK can generate the 150 - 200 extra TWh in renewable energy UK aviation will require to transition to net zero, including to produce electricity for sustainable fuel production such as producing hydrogen as both a feedstock for Power to Liquid SAF and a direct fuel. This includes ensuring a modernised UK electricity grid can deliver capacity and that Ofgem can approve National Grid to act proactively, rather than reactively, to deliver UK aviation's energy transition
- Accelerate the rollout of carbon removal and carbon capture and storage technology to mitigate residual aviation carbon emissions, by including carbon removals the UK ETS scheme and ensuring aviation's fair share



NET ZERO FLIGHT IS BECOMING REALITY

The industry has made major strides to make net zero aviation real.

Since the publication of the Net Zero Carbon Road-Map, the UK has seen a world-first transatlantic flight using 100% sustainable aviation fuels, and hydrogen-powered aircraft routinely undertaking test flights over the British Isles – all further evidence that net zero aviation is not just about promises on paper, but is happening in the real-world.

There is a long way to go but in partnership with Government, we can go further and faster to grow the real and substantial social and economic benefits of flying, and simultaneously reduce its environmental impact.

Alfanar's planned Lighthouse Green Fuels plant, one of the first projects underway in the UK aiming to convert waste into SAF on a large scale.



In November 2023 Virgin Atlantic undertook a **world first net zero flight by a commercial airline** across the Atlantic using 100% SAF.

Airbus is preparing next generation fuel systems to run on hydrogen and new SAFs thanks to its ZEROe Development Centre in Filton, dedicated to new fuels testing.





Rolls-Royce and easyJet achieved the world's first run of a modern aircraft engine on hydrogen proving the fuel can be combusted at conditions that represent maximum take-off thrust.



ZeroAvia Successfully Completes Initial Dornier 228 Flight Test Campaign and is preparing for its first cross-country flights.



The implementation of one of the UK's biggest airspace modernisation changes in 2023 is expected to deliver annual savings of over 12,000 tonnes of CO₂ emissions in UK airspace.



Heathrow's SAF Incentive Programme has incentivised the use of SAF at the airport, approximately halving the price gap between conventional jet fuel and SA. In 2023, the scheme was oversubscribed, demonstrating demand for SAF.



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