

Report to Partnership Board 11th September 2026

RESEARCH AND STRATEGY DELIVERY

Sustainable Aviation Update

Purpose of Report

To update Board Members on the sustainable aviation projects in which HITRANS is involved, including two new Zero Emission Flight (ZEF) Demonstrator awards secured over the summer, and to report on the publication of HITRANS' Regional Sustainable Aviation Strategy.

Overview

The Zero Emission Flight (ZEF) Demonstrator competition is funded by the Department for Transport and delivered through Innovate UK to support the development and demonstration of zero-emission aircraft and the infrastructure required to operate them. It follows on from the UK's Future Flight Challenge, under which HITRANS delivered the Sustainable Aviation Test Environment (SATE) project — establishing the UK's first operational low-carbon aviation test centre at Kirkwall Airport — together with a series of partner projects that concluded in April 2026.

As anticipated in the previous update to the Board, a further funding round has now been confirmed. HITRANS, through its leadership of the SATE programme, has been successful in securing involvement in two ZEF Demonstrator projects announced in July 2026: the SATE Hydrogen Roadmap and Project SEAN (Scottish Electric Aviation Network). Both projects began in August 2026. Alongside this, HITRANS has published its Regional Sustainable Aviation Strategy, setting out a ten-year roadmap for the Highlands and Islands to become the UK's leading region for sustainable aviation.

Update

Regional Sustainable Aviation Strategy – Highlands and Islands set out 10-year roadmap to become the UK's sustainable aviation leader

Following the previous report to the Board, HITRANS has published its Regional Sustainable Aviation Strategy. Developed through the SATE programme, the strategy sets out a 10-year roadmap for introducing cleaner, more reliable air services across the Highlands and Islands, and provides a meaningful pathway for new technologies to enter commercial service within the region, embedded within its multimodal transport system.

The strategy shows how emerging aviation technologies — particularly drones and small electric or hybrid aircraft in the near term, with hydrogen aircraft, airships and seaglifters as medium- to long-term options — can improve connectivity for remote communities, support NHS logistics, strengthen key industries such as tourism, seafood and offshore energy, and contribute to Scotland's net-zero goals. It demonstrates that the region is well suited to act as a "living laboratory" for low-carbon aviation, with existing airports, low-congestion airspace and strong renewable energy resources, while also identifying the critical gaps in infrastructure, workforce skills and regulation that must be addressed. It proposes a phased roadmap combining public funding, private investment and

regulatory collaboration to move from trials to routine commercial services. The two ZEF Demonstrator awards set out below represent the first steps in delivering that roadmap.

SATE Hydrogen Roadmap – Zero Emission Flight Demonstrator award

A consortium led by Urban Foresight, working with HITRANS, EA Maven, Cormorant Seaplanes and Hybrid Air Vehicles, has been awarded £190,081 through Innovate UK's Zero Emission Flight Demonstrator competition to deliver the SATE Hydrogen Roadmap. **HITRANS' award totals £50,400.** The 18-month feasibility study has a total value of **£249,944** and begins in August 2026. It will map how and where hydrogen-powered aircraft could first enter service on regional routes across the Highlands and Islands, supporting Scotland's ambition to decarbonise regional aviation by 2040.

The project will produce an integrated evidence base for government, airports, airlines and local authorities. Its outputs include a hydrogen aviation roadmap for the region, a prioritised shortlist of commercially viable routes, demonstrator route recommendations, airport hydrogen refuelling infrastructure plans phased from gaseous to liquid hydrogen, and quantified commercial, environmental and socioeconomic benefits.

HITRANS will lead exploitation, stakeholder engagement and communications, and will co-own the roadmap outputs, building on its experience leading the SATE project. Urban Foresight, as Strategy Director for the SATE Regional Aviation Strategy, will author the roadmap; EA Maven will carry out demand, schedule and revenue modelling to identify the most promising routes; and Cormorant Seaplanes, with Hybrid Air Vehicles as an unfunded adviser, will provide platform-level insight to ensure assumptions on aircraft performance, payload and route patterns reflect real-world operations. Where SATE has demonstrated the technology, the roadmap is designed to close the loop to market adoption, with an approach intended to be replicable across other remote and rural regions of the UK.

Project SEAN (Scottish Electric Aviation Network) – Zero Emission Flight Demonstrator award

SATE is a partner in Project SEAN (Scottish Electric Aviation Network), a new initiative that will demonstrate how electric aircraft could support sustainable regional air services across the Highlands and Islands. Led by Bristow Helicopters Ltd., Project SEAN has secured **£1.5 million** from the Department for Transport through the Zero Emission Flight Demonstrator competition. **HITRANS' award totals £63,395.** The consortium comprises Bristow Helicopters Ltd., BETA Technologies, Electric Aviation Maven, Highlands and Islands Airports Limited (HIAL), HITRANS and Skyports Infrastructure.

Following an August 2026 kick-off, the project will deliver a three-month programme of demonstration flights using BETA Technologies' all-electric ALIA CTOL (CX300) aircraft. Operating from a hub at Inverness Airport, the aircraft will fly to selected regional airports across the Highlands and Islands, including Wick John O'Groats Airport. Project SEAN will also install electric aircraft charging at Inverness Airport, creating the ground infrastructure needed to support zero-emission flight operations, and will gather operational data on aircraft performance, charging systems and airport readiness to inform the future rollout of electric aviation across the UK.

HITRANS, through its leadership of SATE, will contribute its experience in supporting the introduction of sustainable aviation technologies across the region. Project SEAN moves SATE's portfolio from planning and feasibility work towards the real-world demonstration of electric flight operations, complementing the parallel work on hydrogen aircraft, advanced air mobility, drones and future airport infrastructure.

Risk Register

RTS Delivery

Impact – Positive

Comment – Supports delivery of the RTS through improved regional connectivity and low-carbon air services.

Policy

Policy Impact – Positive

Comment – Positions the Highlands & Islands as a global leader in net zero aviation, supporting the Scottish Government’s ambition for the world’s first net zero aviation region and its target to decarbonise regional aviation by 2040.

Financial

Impact – Positive

Comment – High intervention rates and consortium delivery models mitigate financial risk for HITRANS while delivering significant leverage of Department for Transport and Innovate UK funding.

Equality

Impact – Neutral

Recommendation

Members are asked to:

1. Note the publication of the HITRANS Regional Sustainable Aviation Strategy and its 10-year roadmap for the region.
2. Welcome HITRANS’ involvement in the two new Zero Emission Flight Demonstrator awards — the SATE Hydrogen Roadmap and Project SEAN.
3. Support continued engagement in the Zero Emission Flight Demonstrator programme as a platform for advancing sustainable aviation solutions for the Highlands & Islands.

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