



**REPORT TO: ECONOMIC DEVELOPMENT AND INFRASTRUCTURE
SERVICES COMMITTEE ON 18 JUNE 2024**

**SUBJECT: INFORMATION REPORT: SUSTAINABLE AVIATION TEST
ENVIRONMENT PROJECT**

**BY: DEPUTE CHIEF EXECUTIVE (ECONOMY, ENVIRONMENT AND
FINANCE)**

1. REASON FOR REPORT

- 1.1 To inform and update the Committee of a Hitrans (Highlands and Island Regional Transport Partnership) Sustainable Aviation Test Environment (SATE) project.
- 1.2 This report is submitted to Committee in terms of Section III (F) (21) of the Council's Scheme of Administration in relation to local transport strategies.

2. BACKGROUND

- 2.1 SATE created the UK's first low-carbon aviation test centre embedded at a commercial airport, in Kirkwall Orkney. The initial project saw the opening of dedicated hangar facilities and office space for technology developers as well as facilitating a number of demonstration flights of novel aviation technologies. SATE aims to expand on the success that has already been delivered and develop a UK centre of excellence for sustainable regional aviation.
- 2.2 The project will match innovative aviation technologies with practical use cases in the Highlands and Islands, allowing technology partners to test in a real-world environment, taking them closer to offering sustainable innovation options for commercial use. Identified use cases include Scheduled airline routes; Offshore energy services; National Health Service activities; Island / remote region deliveries; Environmental survey and inspection.
- 2.3 In addition, SATE aims to establish an unmanned aerial vehicle (UAV) hub-and-spoke delivery network and will conduct demonstration flights of technologies including a hydrogen-electric regional aircraft and a drone flight from Scotland to Norway.

- 2.4 Over the past year or so, insights, reports and data have helped build a picture of where technology from SATE could be best placed in the near future to improve transportation and connectivity in the Highlands and Islands. The main focus of the use cases has been on improving quality of life and supporting economic activity. We are now looking for an opportunity to present these findings to gather feedback and potentially explore further leads to help refine and/or finalise the use cases for the project completion.
- 2.5 This project has allowed to develop an understanding of the capabilities of the technology. For example, this has included how fast it could travel, in what conditions, load weights, required infrastructure; as well as fine-tuning the law and regulations to allow safe operations. This has been explored in conjunction with governmental and regional ambitions to ensure technology can deliver an overall benefit and support the transition towards these goals. Capturing an understanding of behaviours and choices has been essential to identify the needs and wants transport could provide. This has involved collecting data on car ownership, length of commutes, passenger numbers on ferries, thriving business, demands for services etc.

3. CASE DEVELOPMENT

- 3.1 In SATE, for accurate use case development it's important to understand where the technology could help.
- 3.2 One identified use, the case for the technology emerging from SATE is to deliver tools, equipment and/or services in time-critical emergencies to preserve life. (Across rescue, health, coastguard, fire, animal/veterinary, crime etc). The identified issue is that time-critical emergencies in remote and rural areas can be harder to reach. There's often a reliance on other services to fill gaps, sometimes at an extra expense, driving up the cost of living in remote areas or resulting in a poorer quality of life. Efficiencies of operations can be impacted.
- 3.3 Benefits of the technology include: Potential speed of deployment; Reduced risk due to remotely piloted systems and less complex technology; Cheaper; Minimal infrastructure.
- 3.4 There is evidence that the use of new and novel aircraft for emergencies would be the most accepted use. It was also observed emergencies rank top in a 'transportation hierarchy' for access, priority, speed, etc. Specific examples of operation within this use case have been identified and are mirroring real-world developments and demonstrations across the world. This includes using drones for non-confrontational monitoring and assessment of an active crime scene, delivery of life saving equipment such as defibrillator or tourniquet, and mapping of a fire.

4. SUMMARY OF IMPLICATIONS

(a) Corporate Plan and 10 Year Plan (Local Outcomes Improvement Plan (LOIP))

This links into our Corporate plan with; People lead healthy lives and have access to quality care when they need it, our businesses and communities prosper and our natural environment thrives for the betterment of all.

(b) Policy and Legal

There are no policy or legal implications from this report.

(c) Financial implications

There are no financial implications from this report.

(d) Risk Implications

There are no risks from this report it is for information purposes only.

(e) Staffing Implications

There are no staffing implications from this report.

(f) Property

There are no property implications on this report.

(g) Equalities/Socio Economic Impact

This project may positively impact equalities in the future by creating technology which may reduce response times to emergencies in rural areas.

(h) Climate Change and Biodiversity Impacts

This project may positively impact climate change and biodiversity in the future by making aviation cleaner and less polluting to the environment.

(i) Consultations

The Depute Chief Executive (Economy, Environment and Finance), head of Environmental and Commercial Services; Chief Financial Officer, Legal Services Manager, Climate Change Officer, Equal Opportunities Officer and Committee Services Officer (L Rowan) have been consulted and any comments taken into consideration.

5. CONCLUSION

5.1 This is an overview on the SATE project. Further reports will be brought forward if and when there are potential projects in the Moray area.

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Background Papers:
Ref: SPMAN-524642768-1110