BRITISH CONSORTIUM TO BUILD WORLD FIRST ADVANCED ELECTRIC FLIGHT ECOSYSTEM

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Vertical Aerospace, Virgin Atlantic, Atkins, Skyports and NATS, along with Connected Places Catapult and leading academic institutions Cranfield University and WMG, University of Warwick, announced the creation of the Advanced Mobility Ecosystem Consortium. Together, the organisations will develop key technology and infrastructure in a project that will significantly accelerate the introduction of AAM in the UK.

The Consortium has been awarded a £9.5 million grant by the UK Government's Future Flight Challenge to develop the essential building blocks of a viable AAM ecosystem that has the potential to be progressed into full commercial operations. This first-of-a-kind ecosystem will accelerate AAM in the UK by creating and testing technological developments in aircraft electrification, airspace management, ground infrastructure, operational procedures and the systems and supporting business cases required to implement a new model of aerial passenger transport in the UK.

Accelerating AAM

The project will demonstrate the feasibility of a UK AAM ecosystem using Vertical Aerospace's emission-free VX4 eVTOL aircraft, operated by Virgin Atlantic. Two physical flights will take place between Bristol Airport to an airfield in South West England, and between London Heathrow Airport and the Living Lab vertiport. A third simulation flight will demonstrate urban connectivity between London City and Bristol airports.

These demonstrations will explore key aspects of the passenger journey, vehicle operation, airspace navigation, ground charging, security provision and local stakeholder engagement. Heathrow Airport, Bristol Airport, Skyports and NATS, the UK's national air navigation service provider, will collaborate to deliver the physical and digital infrastructure to facilitate these missions through a complex airspace environment. The two-year project will be overseen by aerospace engineering experts Atkins as consortium lead.

Benefits of Advanced Air Mobility

AAM offers a new form of travel, enabling cost-effective connectivity into congested urban areas and across regions under-served by existing infrastructure. The UK Government Future Flight Challenge forecast that the introduction of AAM services will increase UK GDP by 1.8% by 2030 and support the government's Levelling Up and Net Zero agendas, reflecting the productivity and wider economic benefits of increased connectivity.

James Richmond, Head of Advanced Air Mobility at Atkins, said: "This is an exciting leap forward for AAM. This project brings together experts from across the industry to maintain the UK's leading position in the future of aviation, moving us closer to commercial operations that will connect regions and contribute to the UK's net zero targets."

Other nations are racing to establish their own AAM ecosystems by 2025 – this project ensures the UK will be amongst the leaders in this new decarbonised form of transport. Gary Cutts, Future Flight Challenge Director at UK Research and Innovation said: "our roadmap sets out how air taxis could be in use in the UK by 2030, but a lot needs to occur for that to happen. By bringing technical developments from across the aviation industry together into one network, and undertaking early demonstration in the real-world, the Advanced Mobility Ecosystem Consortium could accelerate the timescale for AAM introduction by years. This project could revolutionise travel, not just in the UK but around the world."

Novel Infrastructure

Skyports will build and operate a "Living Lab" vertiport to create a testbed for ground, passenger and air operations for the project duration. This centre of innovation will help to materially accelerate the development of AAM services and establish the UK as a leader in the design and operation of vertiport infrastructure.

Duncan Walker, CEO of Skyports, said: "Just as airports are critical to commercial aeroplane travel, vertiports are critical to AAM. Our Living Lab will be a central component of the consortium, enabling Skyports and partners to demonstrate end-to-end operations and test the complexities of developing a commercially viable AAM network in the UK."

New Regional Air Connectivity

Holly Boyd-Boland, VP Corporate Development at Virgin Atlantic, said: "We are thrilled to be working alongside our consortium partners to accelerate the introduction of zero emission flight to

UK customers. As the only airline in the consortium, Virgin Atlantic brings 38 years of operational excellence, a relentless focus on safety and security, and an unrivalled focus on the end-to-end customer journey. Alongside our partners, we are looking forward to getting the first Virgin Atlantic eVTOL aircraft into the skies."

Andrew Macmillan, Director of Strategy of Vertical Aerospace, said: "Vertical is not flying solo. We are building the best industrial and commercial partner ecosystems and are progressing in Britain with our UK launch customer, Virgin Atlantic. We want the UK to lead the electric aviation and AAM revolution. This consortium will help prove how we can deliver safer, cleaner and quieter air travel with the VX4."

A focus on integration

Atkins will lead the consortium and is responsible for technical management and integration of the two-year programme as it moves AAM from concept stage towards implementation. It will leverage its decades of aviation expertise to oversee the systems architecture and deliver a digitally enabled passenger journey management tool for infrastructure and flight operators.

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