Dronecloud and FREQUENTIS collaborate to integrate drone platform with ATC systems

Dronecloud, the drone Flight Management Software provider, has selected Frequentis to join a consortium that will collaborate on the development of open standard integrations to help unlock Beyond Visual Line of Sight (BVLOS) Drone flights in the UK. Frequentis will support Dronecloud and the consortium with its vast and extensive experience in deploying its unmanned traffic management (UTM) solution – MosaiX UTM. This solution provides the air traffic control (ATC) front-end application and the Common Information Service (CIS) cloud platform during project execution.

The intuitive tower application, smartSIS, developed by Frequentis with the strong involvement of user interface experts in close cooperation with air traffic controllers (ATCOs), allows airspace rules and restrictions to be set fairly for all airspace users. The solution provides an integrated air situation picture and supports real-time decision-making. In addition, the MosaiX UTM includes a foundation for U-space (unmanned airspace) services and the CIS function, serving as the "single source of truth" for relevant safety information to reach connected stakeholders.

As part of Project Rise field trials, Cranfield Airport will be trialing Dronecloud and Frequentis' integration in parallel with ATC. Robert Abbott, Director of Aviation Operations at Cranfield University, stated: "Cranfield Airport is excited to be supporting Cranfield University and other consortium members on Rise and further expropriation of utilisation with other drone and UTM systems. Cranfield Airport is looking forward to trialing Dronecloud and Frequentis as part of this important research project."

Dr Saba Al-Rubaye (Principal Investigator), Senior Lecturer in Autonomous and Connected Systems at Cranfield University added: "We're delighted to be part of the Project Rise team, and welcome Frequentis to the project. Together we are working to address the challenge of establishing reliable data and communication systems for unmanned aerial operations and their safe operation with manned aircraft in the same airspace."

Frequentis already has extensive experience with the integration of air traffic management (ATM) and UTM, and is currently implementing the first UTM system in the Nordic region, for Norway's Avinor Air Navigation Services. This is the first UTM system to receive Civil Aviation Authority (CAA) approval for implementation. The company is also the largest industry partner in the Austrian AIRLabs project,

aiming to build and operate test sites for Unmanned Aerial Systems (UAS), covering all development stages from simulation to actual state-of-the-art BVLOS drone missions.

"The key to unlocking the full potential of drones is allowing them to fly beyond visual line of sight," says Guenter Graf, Frequentis Vice President Business Development. "To operate under these conditions both manned aviation and drones must have access to a shared air situation picture. Together with Dronecloud and other consortium members we intend to demonstrate an Unmanned Traffic Management ecosystem, incorporating end-to-end communication and an approval process between drone operators and air traffic control authorities."

Dronecloud is leading the Project Rise consortium, formed as part of the Future Flight Challenge project, funded by UK Research and Innovation, through the multi-billion-pound Industrial Strategy Challenge Fund. The consortium is composed of key industry partners, including Frequentis, Sky-drones, Cranfield University and Skyports. The project is part of an overall effort across the drone industry to integrate disparate systems at scale, to achieve safer, more reliable and auditable drone flights, even beyond the line of sight.

"Welcoming Frequentis to Project Rise was a natural fit. Frequentis brings a proven track record in delivering safety critical systems for Air Traffic Control and other airspace managers. Combined with Dronecloud and the other consortium partners, we are developing a standardised, automated digital flight approval solution ready to unlock BVLOS flights, safely at scale. This in turn will form one of the backbone elements of the eventual 'System of Systems' the industry will need to offer increasing levels of automation and autonomy. If we get these critical building blocks right, the hype around drone-based last-mile delivery in built up areas, and Urban Air Mobility will become reality," Dronecloud Co-founder and CEO, Jan Domaradzki.

About Project Rise

"Unlocking the future of drone operations through integration."

Project Rise is a UK consortium setting out to solve a global problem: how do we safely and reliably integrate unmanned aircraft into the same airspace as manned aircraft over some of the world's busiest and densest urban conurbations? Project Rise aims to do that through creating a system that can communicate between drones and manned aircraft simultaneously.

Member organisations: Dronecloud (ADJsoft Limited) – Project Lead, SkyPorts, SkyDrones, Cranfield University and Frequentis.

About UK Research and Innovation

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About Dronecloud

Dronecloud is making unified airspace a reality by integrating drones, flight planning, UTM and U-Space Services into a scalable 'Enterprise Ready SaaS' solution. Dronecloud unlocks Beyond Visual Line of Sight, Real-Time Deconfliction, Digital Flight Approvals & Autonomy for complex drone operations. The system is built around centrally managed teams, quality assurance, safety and audit frameworks. Larger enterprises can setup and manage curated networks of sub-contractors.

Our clients range from national asset managers (such as Network Rail) to Construction & Engineering companies as well as growing drone operations looking to improve operational efficiency and connect with larger enterprises as sub-contractors.

Dronecloud is UTM and drone agnostic, driven by an open standards-based approach to collaboration with key industry partners to deliver maturity to our rapidly evolving industry.

With this approach and Dronecloud as the central core of the integrated U-Space, we aim to remove the separation of manned and unmanned airspace and pave the way for Last-Mile deliveries and drone taxi services in congested urban environments.

Recent UK Government funding through Innovate UK's Future Flight Challenge will help Dronecloud achieve its ambitions.

More information: https://dronecloud.io/ or hello@dronecloud.io

About FREQUENTIS

Frequentis, headquartered in Vienna, is a global supplier of communication and information systems for control centres with safety-critical tasks. Such 'control centre solutions' are developed and marketed by Frequentis in the business sectors Air Traffic Management (civil and military air traffic control, air defence) and Public Safety & Transport (police, fire brigade, ambulance services, shipping, railways). As a global player, Frequentis operates a worldwide network of branches, subsidiaries, and local representatives in more than 50 countries. Products and solutions from Frequentis can be found in over 35,000 operator working positions and in approximately 150 countries.

Founded in 1947, Frequentis considers itself to be the global market leader in voice communication systems for air traffic control with a market share of around 30%. In addition, the Frequentis Group's AIM (aeronautical information management) and AMHS (aeronautical message handling) systems, as well as GSM-R dispatcher working positions for Public Transport are industry leading solutions.

The shares of Frequentis AG are traded on the Vienna and Frankfurt Stock Exchange under the ticker symbol FQT (ISIN: ATFREQUENT09). In 2020, the Frequentis Group had about 1,900 employees worldwide and generated revenues of EUR 299.4 million and EBIT of EUR 26.8 million.

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For more information, please visit www.frequentis.com

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