



First drone test flights for GOF 2.0 to take off in September 2021

The drone market is growing rapidly and unmanned aerial vehicles (UAVs), including air taxis, are the next step in future urban air mobility. The SESAR JU project Gulf of Finland 2.0 (GOF 2.0) focuses on the safe, secure, and sustainable integration of unmanned aerial vehicle and air taxi operations in urban airspace. After eight months of intense preparation work, the first wave of trials will start in Tartu, Estonia, on 2 September 2021 and continue in Finland, Poland, and Austria.

During the trials, GOF 2.0 will use the expertise of 15 scientific and commercial partners from the drone and aviation industry to demonstrate the operational validity of serving unmanned aerial systems and manned operations safely, securely, and sustainably in a unified, dense urban airspace using existing air traffic management and U-space services and systems.

For Urban Air Mobility to become a transportation system it must be integrated with other transportation infrastructure, such as airports, harbours, train/bus terminals, as well as logistics centres. The ability of logistics drones to form a seamless transportation chain in and out of airports is therefore of utmost importance.

The first wave of trials will focus on testing and demonstrating automated parcel delivery drones operating at low level, unexpected Helicopter Emergency Medical Services (HEMS) flights, drone surveillance flights in urban area, entry and exit of various scale drones in defined airspaces, cross-border operations in U-space corridors with mixed electrical vertical take-off and landing (eVTOL), and drone traffic without degrading safety and following air traffic rules.

“The GOF2.0 project will demonstrate the operational validity of combining ATM/U-space services and systems and creating a shared interoperable infrastructure for both manned and unmanned aviation, especially in dense urban environments. The provision of timely, relevant and accurate digital information to all airspace users on a system-wide basis will enable safe and secure management of unified airspace without segregation”, explains Maria Tamm, Project Manager at EANS. “The outcomes from the GOF2.0 demonstrations will provide a unique opportunity for all stakeholders to gain a better understanding of the current possibilities and challenges when implementing U-space, advancing urban air mobility and moving towards smart and sustainable aviation.”

The key lessons will be an important enabler for the further development of the drone market and will deliver the technical components (services, software, competencies, practices) required to cost-efficiently operate autonomous and semi-autonomous drones beyond visual line of sight in shared airspace.

GOF 2.0 is managed by the SESAR Joint Undertaking in an effort to deliver solutions for U-space, the European Commission's initiative on the safe and secure integration of drones in European airspace.

For more detailed information, also visit the project website: www.gof2.eu

This project has received funding from the SESAR Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017689.



About SESAR

As the technological pillar of the Single European Sky initiative, SESAR aims to modernise and harmonise air traffic management in Europe. The SESAR Joint Undertaking (SESAR JU) was established in 2007 as a public-private partnership to support this endeavour. It does so by pooling the knowledge and resources of the entire ATM community in order to define, research, develop and validate innovative technological and operational solutions. The SESAR JU is also responsible for the execution of the European ATM Master Plan which defines the EU priorities for R&D and implementation. Founded by the European Union and Eurocontrol, the SESAR JU has 19 members, who together with their partners and affiliate associations will represent over 100 companies working in Europe and beyond. The SESAR JU also works closely with staff associations, regulators, airport operators and the scientific community.

About EANS (Estonian Air Navigation Services)

Estonian Air Navigation Services (EANS, Lennuliiklusteeninduse Aktsiaselts) is a next generation air navigation services provider, headquartered in Tallinn, Estonia. We provide safe and efficient air navigation services together with air traffic management consultation and training services. We are well integrated into international air navigation services community and shaping the future of air traffic management within European Union. Coming from one of the worlds most advanced digital societies, gives us the strength, knowledge, and expertise to make the digital transformations in air navigation industry real. Together with our 200 employees we are designing innovative and sustainable integrated airspace, via dynamic cross-border FINEST collaboration with our neighbours in Finland. We are one of the drivers of the safe airspace integration of unmanned aerial vehicles within the Single European Sky Initiative Gulf of Finland (GOF) 2.0 and developing unified air traffic management in Estonia. Our remote tower technology is one of a kind and enables us to control air traffic at several aerodromes simultaneously from one working position, ensuring high quality and safe services even in poor weather visibility conditions. EANS is a state-owned public limited company under the jurisdiction Ministry of Economic Affairs and Communication of Republic of Estonia.

About Airbus Urban Mobility GmbH

Airbus Urban Mobility GmbH was founded in May 2018 in order to take our exploration into cutting-edge commercial urban air mobility solutions and services to the next level. We are exploring how recent technology advancements provide mobility solutions and services – from battery capacity and autonomy to electric propulsion – that can help drive the development of new kinds of aerial vehicles (eVTOLs). Airbus Urban Mobility focuses on better connecting people by

bringing the safety, convenience and joy of flight to city inhabitants. To make this a reality, we're architecting all pieces of the urban air mobility domain. Our approach includes building and bringing together all the relevant components—technology, business models, city integration, infrastructure development, and airspace management – to take urban transport into the sky. In doing so, we can ensure maximum societal benefits for urban communities worldwide.

About Aviamaps

Aviamaps Ltd is modernizing manned and unmanned aviation with a unique real-time aviation map platform and easy-to-use flight planning and airspace management tools. Aviamaps combines static airspace data with live supplements, NOTAMs and AUP/UUP data. Platform also visualizes drone geozones, weather, aircraft traffic and more. Flight announcements make it possible to communicate with other pilots and making aviation safer. Aviamaps is targeting to be the “google maps” of aviation.

About CAFA Tech

CAFA Tech is a robotics company which is developing:

1. Autonomous and tele-operated mobile robots for logistics and ground maintenance
2. Automated cellular drone systems based on 4G/5G communication
3. Battery systems and Service Stations for mobile robots and drones

for supporting automated missions of mobile robots and drones CAFA Tech provides Computer Vision systems for analysing cameras feed near real time.

About Dimetor

Dimetor is a software company bridging the data gap between communications service providers (CSPs) and the aviation eco-systems. Through its world-leading platform AirborneRF, they help provide supplementary data that is critical for safe BVLOS drone operations. AirborneRF focuses on (a) the 3D corridors in space that have sufficiently good connectivity for drone operations (e.g. for networked remote ID, command and control, payload communication), and (b) the population density for ground risk assessment, based on anonymized cellular mobility data. Developed by experts in mobile communication networks, aviation and drone technology, AirborneRF also provides live notifications from the CSP networks in case of any issue during flight operation may occur. Dimetor's software has been deployed worldwide, including Australia, Switzerland, Netherlands, the United States. Visit www.dimetor.com and www.airborneRF.com for more information.

About Droneradar

Droneradar Sp. z o.o. (www.droneradar.eu) is a technology provider for PansaUTM. Droneradar developed mobile application, supporting building full aeronautical awareness across Drone community, two-way non-verbal communication (CDDL – Controller Drone Data Link Communication) and also unique algorithm for judging possibility of the flight. Droneradar is daughter company of dlapilota.pl Sp. z o.o. Polish General Aviation portal and aeronautical data publisher, established in 2002. Currently, Droneradar activities are focused on autonomous flights, automation of processes between UTM and ATM world, CIS interfaces standardization. Droneradar is active on European and National legislation level supporting many standardization organizations.

About EHang

EHang (Nasdaq: EH) is the world's leading autonomous aerial vehicle (AAV) technology platform company. Our mission is to make safe, autonomous, and eco-friendly air mobility accessible to everyone. EHang provides customers in various industries with AAV products and commercial solutions: air mobility (including passenger transportation and logistics), smart city management, and aerial media solutions. As the forerunner of cutting-edge AAV technologies and commercial solutions in the global Urban Air Mobility (UAM) industry, EHang continues to explore the boundaries of the sky to make flying technologies benefit our life in smart cities. For more information, please visit www.ehang.com.

About Fintraffic ANS

Fintraffic ANS is responsible for managing the use of Finnish airspace as well as providing air traffic control services at airports in Finland. En-route services include area control services in Finland, airspace management, aeronautical search and rescue and air traffic flow management. Our technological air navigation services maintain and develops all navigation, communication, surveillance and monitoring systems related to en-route services, such as the air traffic control and radar systems required for flight surveillance. Our customers include airports, the commercial aviation industry, the Finnish state's aviation operations and military aviation, general aviation and pilot training schools.

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 generated revenues of EUR 299.4 million and EBIT of EUR 26.8 million. Following the transaction with L3Harris, the number of employees is around 2,100.

For more information, please visit www.frequentis.com

About IBCh PAS PSNC

Poznan Supercomputing and Networking Center (PSNC) affiliated to the Institute of Bioorganic Chemistry of the Polish Academy of Sciences is an internationally known node of the European Research Area in the field of IT infrastructure of science and an important R&D center in the field of information and communication technologies (ICT). As a development centre of e-Infrastructure, PSNC designed and built the Metropolitan Network POZMAN, High Performance Computing Center and the national broadband network PIONIER, maintained and still developed by PSNC.

PSNC is an important element of global research and development base, implementing projects mainly under the European Union Framework Programmes, but also supporting R&D initiatives with more than a thousand partners from around the world. PSNC has participated and participates in 215 such projects, coordinating 20 of them. For over a quarter century of its activity 282 research and structural projects have already been implemented in the Centre (coordinating as many as 38 of them), which is one-seventh of all PSNC projects.

PSNC has been operating with a mission: "Integration and development of information infrastructure for science". The potential of the infrastructure and the several dedicated laboratories, including a fleet of unmanned aerial vehicles, are the basis of innovative applications in agriculture, logistics or education. The possibilities are being expanded with the new experimental and laboratory space at the airport in Kałolewo with dedicated data collection and processing services and a connection to the PIONIER network infrastructure.

About Polish Air Navigation Services Agency (PANSNA)

Every day Polish Air Navigation Services Agency ensures safety of passengers in more than 3,000 flights over Poland. We have one of the biggest airspace in Europe: over 334,000 km². Before coronavirus pandemic almost a million overflights, approaches, take-offs and landings in 2019 were supervised by almost 600 air traffic controllers employed in Polish Air Navigation Services Agency, as well as around 260,000 General Aviation flights under watch of the Flight Information Service (FIS). Polish Air Navigation Services Agency is also the only institution in Poland training and employing civil air traffic controllers (ATCOs). We also provide Flight Inspection Services for monitoring the proper operation of ground-based navigation aids from the air. Our air traffic controllers are supported by advanced technology. Over 200 devices located throughout Poland guaranteeing safety of air traffic within the Polish airspace: air-ground communication systems, RNAV systems, ILS – DME systems supporting smooth and precise landing in low visibility, radars. PANSNA also builds and develops tools for efficient management and planning of airspace: CAT (Common Airspace Tool) – that ensures accurate and efficient management of the airspace, PANDORA – that supports controllers and other operations personnel with the wide spectrum of a real time aviation data, raising their situational awareness, PANSNA UTM – system for UAV flight coordination, TRAFFIC – Track Advisor for Flight Information Concerns, which provides the ATM system information from flight plans, as amended and complementary messages.

PANSNA have developed and implemented PansaUTM – UAV flight coordination system. In March 2020 PansaUTM became the first operational system in Europe which involves Air Traffic Controllers with fully working collaborative ATC interface supporting two-way non verbal communication with UAS pilots. The system is operationally working on all 15 civil TWRs and all 5 FIS sectors. According to the statistics the number of all operations in 2020 reached more almost 300 000 UAV flights submitted to the PansaUTM including all controlled zones in Poland. Comparing it to the number of manned aircraft operations in uncontrolled airspace in 2019 (240 000) recorded by PANSNA – shows that number of unmanned operations already surpassed that number. In February 2021 PANSNA have implemented new version of PansaUTM 1.2 with additional functionalities for UAS pilots and air traffic controllers including automatic approvals.

About Robots.Expert

Robots Expert Finland Oy (REX) is the leading European unmanned aviation expert company with a mission to Create a Future where Drones benefit both Business and Society. REX helps organizations to exploit new drone technology in their business; consults on the value-chain and change management needed to adopt drones into workflows, helps organizations comply with safety regulations, and facilitates flying demonstrations to prove the true benefits in business. REX' personnel have a strong background in UAS, technology and strategy, as well as in Urban Air Mobility and project management to support the tasks of facilitating demonstrations and to manage large projects or consortia.

About Threed Systems

Threed Systems specializes in developing, producing, and operating Unmanned Aircraft Systems (UAS) that are designed for information collection and exploitation in wide range of applications. Threed supports the decision-making process on every level of command. Threed Systems is known for rapid product development and tailor made UAS solutions for small multirotors, fixed-wing UAV platforms, and in-house developed subsystems. Threed System designs, develops, manufactures and operates Unmanned Aircraft Systems and subsystems for information collection, surveillance and other tasks related to unmanned sensing including VLOS and BVLOS operations.

About Unmanned Life

Unmanned Life is a multi-award-winning deep tech company. Our core IP is the world's first 5G, Edge and AI-enabled software platform which can deploy and manage at scale, integrated swarms of different types of robotic devices (UAV, AGV etc.) of varied capabilities, working together autonomously to deliver commercial grade solutions for the Industry 4.0 and Smart Cities market sectors. Our Mission is to become the Go-To Software Platform for Seamless Orchestration of Autonomous Robotics

We are comprised of a small but highly talented team (punching well above our weight) of multiple nationalities, educated at the world's top schools in their respective disciplines with experience in frontier and emerging technologies such as 5G, Cloud Computing, AI, Robotics, Autonomy as well as Business Leadership, Management and Sales in some of the world's leading companies. We have been recognized across the world by various technology giants, fortune 500 industrial behemoths, governments and associations winning awards such as "Most Innovative Company" by Alibaba Group (2019), "Most Innovative Technology" by NTT Group (2019) and the UK National Technology Award (2018).

Finally, we have existing projects, pilots, and strategic partnerships with industry behemoths in technology, telco, logistics and government such as Telefonica, SEAT, Walmart, BT, Etisalat, Dubai Future Foundation and the City of Vienna to name a few. Our diverse and immensely motivated team unites on our mission to become the go to software platform for seamless orchestration of heterogeneous robotic swarms. To find out more visit: <https://unmanned.life/>

About Vaisala

Vaisala is a global leader in weather, environmental, and industrial measurements. Building on 85 years of experience, Vaisala provides observations for a better world, with space-proof technology even exploring Mars and beyond. We are a reliable partner for customers around the world, offering a comprehensive range of innovative observation and measurement products and services. Headquartered in Finland, Vaisala employs approximately 1,900 professionals worldwide and is listed on the Nasdaq Helsinki stock exchange.

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