



GOF 2.0 – Integrated Urban Airspace Validation

April – October 2022: Very Large Demonstrations taking place in Austria, Estonia, Finland, and Poland (Wave 2)

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The future of transportation

The future of transportation lies in the third dimension – the sky – and will revolutionise the way we perceive urban mobility. 15 scientific and commercial partners from the drone and aviation industry will use their expertise and technology for the safe, secure and sustainable integration of unmanned aerial vehicles and air taxi operations in urban airspace.

What is GOF 2.0?

With the further enhancement of unmanned aerial vehicles and air taxis in the rapidly growing drone market comes the need for the evolution of technology and framework conditions for their safe coexistence with manned aircraft. This requires a change in the way airspace is managed. A new environment and updated framework conditions must be developed in U-space, where we integrate unmanned traffic management and air traffic management for their safe coexistence.

The GOF 2.0 Integrated Urban Airspace Very Large-Scale Demonstration is a SESAR 3 Joint Undertaking project focusing on the safe, secure, and sustainable integration of unmanned aerial vehicle and air taxi operations in urban airspace, including airport environments. GOF 2.0 is a follow-up to the SESAR 3 JU GOF U-space project, which successfully demonstrated the safe airspace integration of unmanned aerial vehicles in summer 2019.

GOF 2.0 will contribute to developing and enabling future U-space, supporting the work of the SESAR 3 JU, EASA, EUROCONTROL, European Commission, EUROCAE, EUSCG, Air Navigation Service Providers, and National Aviation Authorities.

Why GOF 2.0?

The European Commission has identified an increasing demand for the non-segregated use of airspace, which is being driven by a rapidly growing market of Very-Low-Level (VLL) airspace users, most of which are expected to be unmanned aerial vehicles, commonly known as drones.

Via the roadmap for the safe integration of drones into all classes of airspace, within the European ATM Master Plan, the European Commission seeks assurance that this rapid growth of airspace use happens in a safe and controlled manner. Building on the key learnings and results of the SESAR 3 JU GOF U-space project, GOF 2.0 intends 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.



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Why GOF 2.0?

GOF 2.0 is an important enabler for the further development of the drone market and will deliver the technical components (services, software, competencies, practices) required to provide innovative strategic and tactical deconfliction services to demonstrate how both manned and unmanned aircraft can safely share the same airspace, which is needed to cost-efficiently operate autonomous and semi-autonomous drones beyond visual line of sight (BVLOS) in urban, low-level airspace.

GOF 2.0 will help implement U-space in the future. The regulatory landscape will be combined with technological solutions built on open architecture in order to enable cost-effective U-space service provision and rapid deployment across European Member States through simple integration with existing airspace and urban data.

The SESAR 3 JU project creates safe conditions for all stakeholders to learn and gain a better understanding of the current opportunities and challenges when implementing U-space. The aim is to test and validate existing solutions in operational settings with real-life use cases and to evaluate the maturity of these solutions.

