

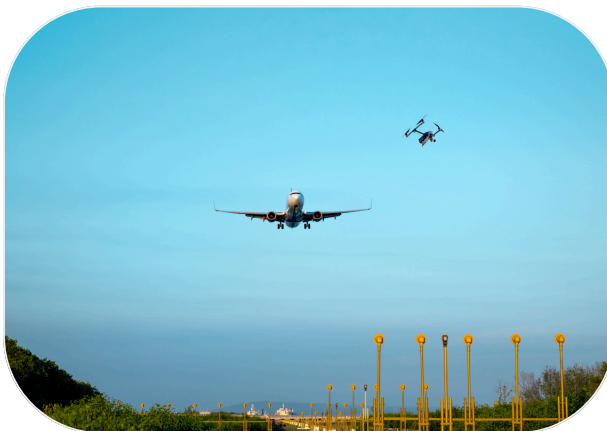
INTEGRATING ATM & U-SPACE WORLDS



In recent years, new actors have appeared as new users, such as drones in the airspace, which are being used for multiple applications, from agriculture, inspections or surveillance to future uses such as Urban Air Mobility (UAM). With this extensive growth of airspace users, there is a need for coexistence and additional information exchange between manned and unmanned aviation.



ENSURE



ATM - U-SPACE INTERFACE AND AIRSPACE RECONFIGURATION SERVICE



ENSURE SESAR 3 Project



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ABOUT ENSURE

The ENSURE project aims to refine and complete the definition of a common interface and services for U-space and ATM.

The project, led by Indra, will also develop a dynamic airspace reconfiguration service to help ATC actors in charge of airspace management to maintain traffic segregation and to avoid proximity between manned and unmanned aircraft within the ATM U-space shared airspace.



ATM - U-SPACE INTERFACE & SERVICES

ENSURE Solution 1 supports the integration of U-space and ATM systems by defining and validating a common ATM-U-space interface, composed of several information-exchange services between both systems **for operational support**.

This information sharing will enhance situational awareness of manned and unmanned traffic for both ATM and U-space stakeholders, enabling the safe and efficient **integration** of manned aircraft and drones within controlled airspace.



DYNAMIC AIRSPACE RECONFIGURATION

Solution 2 is developing the **Dynamic Airspace Reconfiguration (DAR)** service to enable scaled operations in shared airspace by **(re)configuring airspace volumes** in response to the changing manned and unmanned traffic demand. This solution will help define the responsibilities of the Air Traffic Controllers and DAR Managers, accounting for the impact on **human performance**, to ensure the operations are managed safely and efficiently.

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