D-flight S.p.A. a Public Private Partnership consisting of ENAV S.p.A., Leonardo S.p.A. and Telespazio S.p.A. for the development of U-Space services in Italy, under the coordination of the Italian Civil Aviation Authority (ENAC), has launched a Network Remote Identification (NRI) service for Unmanned Aerial Systems (UAS).

Enabling complex UAS operations at scale requires transparency and accountability in the low-altitude airspace. NRI makes that transparency possible by offering a flexible and scalable way for UAS operators to share safety-critical identifying information with law enforcement and the public while still safeguarding their privacy.

Through the protocol developed by d-flight, UAS can transmit identification and positioning information over the Internet to the cloud. The NRI service complies with remote ID and tracking standards in the finalization phase and meets one of the main features enabling the UAS market, as detailed in the U-Space Regulatory Package recently adopted by EU.

The **Interface Control Document (ICD),** published by d-flight, allows all interested parties to develop systems capable of communicating, over any IP networks, the identity and location of a UAS vehicle, directly from the edge or from the ground, through the Ground Control Station.

Operators of UAS vehicles not equipped with these systems can still participate in the remote identification service through the Drone Operation Area (DOA) features, for operations in the Open category, and Drone Operation Plan (DOP) for operations other than the Open, already available on both the d-flight web and mobile app. These features help to create an updated traffic picture in real time. Knowing the real position of the UAS vehicles in airspace represents a further advance in the level of situational awareness, especially in the more complex scenario of BVLOS operations. Through the implementation of the ICD or through the direct use of the d-flight App on mobile devices, pilots in recreational or sports flight (VDS) will also be able to participate in the initiative, voluntarily sending the position in flight to d-flight.

The overall operational framework, consisting of active DOAs, DOPs, the positions of UAS vehicles transmitted through the ICD and manned traffic visible from cooperative surveillance systems, is represented through d-flight in the form of **Traffic Information Service (TIS)**, another service listed in the U-Space regulation among the main enabling services for complex UAS operations.

Through the TIS d-flight, UAS operators will be able to learn about the flight activity around their location and the relative occupation of the airspace. General and Sport Aviation Pilots will also benefit for an improved situational awareness of the surrounding airspace. A citizen on the ground will be able to check, through the d-flight app, whether a drone flying in its vicinity is entitled to do so, in full respect of the privacy of the UAS operator who is responsible for it. Only authorised users, including police, public security officers and other qualified authorities, will be able to trace directly, through d-flight, the identity of the UAS operator responsible for an in-flight vehicle.

The initiative taken by d-flight is welcomed by ENAC, which promotes its objectives. To learn more about d-flight's work on U-Space development in Italy, visit www.d-flight.it.