

Leonardo carries out Italy's first demonstration of a drone with electrically-powered propulsion transporting heavy goods

- **The latest experiment in the advanced air mobility domain, this summer's "Sumeri: Si Salpa!" project saw a 130kg drone transporting 25kg of goods via Extended Visual Line of Site (EVLIS) controls**
- **Leonardo is committed to serving and protecting communities through its leadership in next generation technologies. This is one strand of the company's *Be Tomorrow – Leonardo 2030* strategic plan, which puts autonomous systems and security at the heart of its strategy**

Rome, 12 February 2021 – Leonardo continues to experiment in the field of advanced air mobility as it aims to accelerate the introduction of drones into civilian skies and develop innovative drone-based services for Italy and beyond. In a recent collaboration with the Municipality of Turin and D-Flight (an ENAV group company, part owned by Leonardo and Telespazio), Leonardo conducted a series of test flights in which a drone weighing 130kg and powered by an electric propulsion system carried loads of up to 25kg. The demo, which was authorised by ENAC (the Italian Civil Aviation Authority) and took place in the city of Turin, is the next step towards a new model of air transport logistics for medium-range routes, defined as those up to 50km.

The project, called "Sumeri: Si Salpa!" is the first in Italy and amongst the first in the world in which a remotely-piloted system with these characteristics has flown in an urban environment. It is part of a series of experiments that will lead towards a future in which drones carrying hundreds of kilos of goods will be flown up to 50km by operators using a Beyond Visual Line of Site (BVLOS) control system.

Laurent Sissmann, SVP Unmanned Systems at Leonardo, said "This initiative is an expression of Leonardo's vision to make cities more functional, sustainable and ecologically-friendly through the application of new technologies in the fields of unmanned aircraft and logistics, applications which can also be used in times of emergency, such as those we've seen in recent months. Artificial intelligence and automation, combined with Leonardo's system-level expertise in aeronautics, are enabling us to bring forward exciting new types of air operations in complete safety. We send our warm thanks to the Municipality of Turin, which is taking a leading role in this domain. I would also like to express gratitude to ENAC for their support, which enabled us to deliver this innovative technology trial in full compliance with the relevant safety and security regulations. Last but not least, we are very pleased to see the further development and growth of D-Flight, which contributed its air traffic management platform expertise to the demonstration."

The trial incorporated three factors that will be essential in the development of innovative logistics services for urban environments: the high load capacity of the drone, a high level of automation and advanced capabilities for dealing with air traffic management. The benefits to citizens of such services will include faster deliveries, lower costs and, most importantly, reduced pollution due to the drones' electric propulsion systems.

Alessio Quaranta, General Manager of ENAC, said "The experience we have gained from the Sumeri project has improved our ability to implement innovative risk methods that are provided by drone operation regulations. The ability to transport goods via drone in urban areas is an important part of the development of urban and advanced air mobility in Italy. The Sumeri project is part of a national initiative to develop innovative mobility throughout Italy, which ENAC has been working on alongside the Ministry of Infrastructure and Transport, the Ministry for Innovation and Digitization and with the active support of major national stakeholders such as Leonardo. It is a model we hope to be able to export across Europe."

Marco Pironti, Councillor for Innovation of the city of Turin, said "Urban air mobility is at the forefront of our mandate to innovate. It is one of the most challenging 'smart city' technologies to develop, but very much an area in which we are keen to push the boundaries through urban experimentation. One of the most interesting use cases for urban air mobility is to allow for the transport of goods from distribution centres to the end customer (the 'last mile') via a variety of modes of transportation, which will have a positive impact for our city, our citizens and our environment. I'm very happy to see the Sumeri project, an international collaboration between our Turin City Labs ecosystem and air mobility project leader Leonardo, is already off to a successful start.

The demonstration is being facilitated by an air traffic management software platform developed by D-Flight, which is also providing QR code registration and release services for the experiment. D-Flight is also taking the opportunity to trial a new mobile app that can facilitate mission planning and in-mission tasks. The use of such systems is highlighting the company's efficient, innovative and practical response to future European regulation on 'U-space', airspace specifically designated for remotely-piloted aircraft. D-Flight offers one of the first operational European software platforms for U-space, allowing traditional aircraft and drones to co-exist in the same airspace. The company's ability to support the progressive introduction of new drone services will allow for the sustainable development of an already growing sector.

Leonardo

Leonardo, a global high-technology company, is among the top ten world players in Aerospace, Defence and Security and Italy's main industrial company. Organized into five business divisions, Leonardo has a significant industrial presence in Italy, the United Kingdom, Poland and the USA, where it also operates through subsidiaries such as Leonardo DRS (defense electronics), and joint ventures and partnerships: ATR, MBDA, Telespazio, Thales Alenia Space and Avio. Leonardo competes in the most important international markets by leveraging its areas of technological and product leadership (Helicopters, Aircraft, Aerostructures, Electronics, Cyber Security and Space). Listed on the Milan Stock Exchange (LDO), in 2019 Leonardo recorded consolidated revenues of €13.8 billion and invested €1.5 billion in Research and Development. The Group has been part of the Dow Jones Sustainability Index (DJSI) since 2010 and is named as sustainability global leader in the Aerospace & Defence sector for the second year in a row of DJSI in 2020.

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ENAC – Ente Nazionale per l'Aviazione Civile

ENAC acts as the only authority for technical regulation, certification, supervision and control of the civil aviation sector in Italy in compliance with the powers deriving from the Navigation Code. The primary objectives of the institutional mandate are highlighted in its Mission: "In carrying out its institutional activity of regulation and control of the aviation sector, the Body promotes the development of civil aviation, guaranteeing to the country, in particular to users and businesses, flight safety, the protection of rights, the quality of services and fair competitiveness in respect of the environment".

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Torino City Lab (TCL)

Is an initiative aimed at creating simplified conditions for companies interested in conducting testing in real conditions of innovative solutions for urban living. Promoted by the City of Turin, it involves a vast local partnership of subjects from public and private sectors interested in supporting and growing the Turin's innovation ecosystem. Active since October 2018, the widespread "laboratory of innovation" of the City of Turin has strengthened in recent years its mechanisms of participation and partnership coming to involve companies and experimentation of international level.

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