

PRESS RELEASE

UMILES Next and TECNALIA in Brussels to present the technologies that will dominate the European skies for safe and sustainable urban air mobility



- ***The eVTOL, the UMILES Concept Integrity prototype air taxi, developed in conjunction with TECNALIA and equipped with patented FlyFree technology, has successfully completed three test flights in different European airspaces***
- ***The flights were conducted as part of the TINDAIR, USPACE4UAM and AMU-LED projects, together with companies such as AIRBUS, BOEING, NTT DATA, ITG, HONEYWELL, LILIUM, FADA-CATEC, INNOV'ATM, PILDOLABS, COLLINS AEROSPACE, ONERA and ENAIRE, among others***
- ***The eVTOL was displayed at the Drone Day in Brussels, where Drone Strategy 2.0 was presented by the European Commission, an initiative aimed at promoting the development of new sustainable drone services and transport solutions***

30 November 2022 The UMILES Next air taxi, Concept Integrity, equipped with FlyFree technology developed by the TECNALIA research centre, was presented in Brussels during the Drone Days organised by the European Commission as part of the Drone Strategy 2.0, an initiative aimed at promoting the development of new sustainable drone services and transport solutions that is backed by the European Commission.

During these Drone Days, experts from the industry and European politics explored the key strategic areas for the future of innovative urban air mobility and emergency services, and the strength of the synergies between European civil and defence drone capabilities.

So, through the flights conducted in Toulouse, Jaén and Lugo, TECNALIA and UMILES Next presented the technologies that had been validated during these tests, which will represent the future of safe and sustainable urban air mobility within the European Drone 2.0 strategy. Technologies such as:

- Automatic flight altitude control.
- Automatic landing and take-off.
- Urban airspace integration tests (U-Space).
- In-flight tactical conflict resolution scenarios.
- Dynamic geofencing: The geofencing system is integrated into the drones and uses GPS positioning and other navigation satellite signals to warn or restrict drone operators from entering locations which pose national security or aviation safety concerns. In this case, it provides anti-invasion monitoring in flight areas.
- Detect and avoid systems for other drones in flight.
- Dynamic re-routing (in the absence of a vertiport), which consists of changing flight plans due to tactical conflict resolution.
- Cruising operations.
- Coordination of flights with other drones and manned vehicles through the AIRUS U-space platform.
- Integration testing, including aircraft simulation, drone identification and registration, geopositioning, flight mission plan conflict resolution, flight tracking and monitoring, interface with ATC (Air Traffic Controller) and emergency management.

The validation of these technologies have represented a great step forward for the airspace integration of these types of aircraft, with the goal of validating future urban air traffic management with unmanned aircraft (U-space).

The aim is to make the mobility of the future more intelligent and sustainable. These new systems and developments will mean that there are alternative transport solutions in increasingly crowded cities. UMILES Next and TECNALIA have set their sights on this with their urban air and ground mobility solutions, which are expected to become a real alternative by around 2028.



Oscar Lara, COO UMILES Next, together with JOSEBA Lasa, head of the Urban Air Mobility Lab at Tecnalia, showing the Integrity 3 aircraft to Jan-Christoph Oetjen, member of the European Parliament (left)

Carlos Poveda, CEO UMILES Group, next to the model of the Integrity 3 Aircraft (right)

About UMILES Next

UMILES Next is the UMILES Group company that focuses on developing advanced air and ground mobility solutions. A pioneer in offering operators the innovative capacity to safely and sustainably handle the transport of passengers and cargo thanks to its proprietary technology synergies. Along this path, UMILES Next is accompanied by Tecnalia, its main technology partner. Their goal is to be leaders in air and ground mobility, to compete globally with nothing but Spanish capital and technology.

About TECNALIA

TECNALIA is the largest applied research and technological development centre in Spain, a leader in Europe and a member of the Basque Research and Technology Alliance. It works in tandem with companies and institutions to improve their competitiveness, people's quality of life and achieve sustainable growth, which is made possible by a team that is passionate about technology and committed to building a better society. Its core areas of activity are: digital transformation, smart manufacturing, energy transition, sustainable mobility, urban ecosystems and personalised healthcare.

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