



PRESS RELEASE

EUROPEAN SAFEDRONE PROJECT TO INTEGRATE DRONES IN THE FUTURE U-SPACE OVER CITIES AND RURAL AREAS TAKES OFF

- **It will foster some of the largest European flight demonstrations of drones and aircraft sharing airspace at very low altitude**
- **Development of U-space the key to unleash drones' capacity to provide all kinds of services in rural areas and cities in the next decade**
- **The consortium led by Indra, comprising FADA-CATEC, IAI, Unifly, the University of Seville, ENAIRe and CRIDA, will carry out this EU-funded project, through the H2020 and SESAR Joint Undertaking (SESAR JU)**

Madrid, December 17, 2018.—The European Safedrone project, which will carry out one of the largest European flight demonstrations of drones and conventional aircraft sharing airspace at very low level takes off with the aim to unleash the capability of unmanned aircraft to provide all kinds of services in rural areas and cities in the next decade.

Funded by the EU, through H2020 and the SESAR JU, the project is being launched by a consortium led by technology and consultancy company Indra and comprising the Center for Advanced Aerospace Technologies (FADA-CATEC), Israel Aerospace Industries (IAI), Unifly, the University of Seville, ENAIRe (the air traffic management and navigation services state-owned company) and CRIDA (ATM Research, Development and Innovation Reference Center).

It will develop a series of innovative services —that forms what is known as the U-space— that will facilitate access for drones to the airspace that extends from the ground to 120 meters in altitude. Safedrone's demonstrations will help to define the operational context for these services.

The exercises will involve up to eight aircraft of different types –drones, fixed-wing and rotatory wing light aircraft- flying simultaneously in the same airspace.

They will include beyond visual line of sight (BVLOS) operations in rural and semi-urban areas, recreating situations such as the delivery of medical supplies, aerial mapping and land surveying.

All tests and flights will take place at the ATLAS Experimental Flight Center located in Villacarrillo (Jaén), Spain.

Digitalisation of U-space

Maintaining security levels in air operations at very low altitude will require a high degree of digitalisation and automation of a large number of functions.

The Safedrone project aims to define and detail pre-flight services (electronic registration, electronic identification, planning and flight approval) as well as in-flight services (geolimitation or geofencing, flight tracking, dynamic airspace information and automatic technologies to detect and avoid obstacles).

The concepts and technologies used will be proposed to the various standardisation bodies, such as EUROCAE and GUTMA, and air regulatory authorities, such as the European Aviation Safety Agency



(EASA) and the Spanish Aviation Safety and Security Agency (AESA), in order to provide evidence to support the safe integration of drones in VLL operations.

About:

Indra

Indra (www.indracompany.com) is one of the leading global technology and consulting companies and the technological partner for core business operations of its customers world-wide. It is a world-leader in providing proprietary solutions in specific segments in Transport and Defense markets, and a leading firm in Digital Transformation Consultancy and Information Technologies in Spain and Latin America through its affiliate Minsait Its business model is based on a comprehensive range of proprietary products, with a high-value focus and with a high innovation component. In the 2017 financial year, Indra achieved revenue of €3.011 billion, with 40,000 employees, a local presence in 46 countries and business operations in over 140 countries.

CRIDA

CRIDA (Centro de Referencia de Investigación, Desarrollo e Innovación ATM, A.I.E.) is a not-for-profit Research Entity established by ENAIRe (the Spanish air navigation services provider), the Polytechnic University of Madrid "Universidad Politécnica de Madrid – UPM" and INECO. CRIDA was created on the 27th of February of 2008. Its mission is to improve the efficiency and performance of the Spanish Air Traffic Management (ATM) system through the development of ideas and projects that provide quantifiable solutions based on system performance indicators, considering the Spanish system as an integral part of a global networked system.

ENAIRe

ENAIRe is the company belonging to the Public Works Department that handles air navigation in Spain. It renders aerodrome control services at 21 airports, including the 5 busiest in terms of air traffic. All aircraft crossing the airspace assigned to our country receive communications, navigation and surveillance services using ENAIRe's modern network of facilities, consisting of: 5 control centres, 2 terminal area control centres, 237 radio aids providing en-route airport guidance and approach support, 54 en-route, approach and surface surveillance systems, 90 communications centres (combining transmitter/receiver centres and control towers), 100 REDAN voice and data communication nodes for air navigation applications, 126 control tower posts, and 153 control centre posts.

In 2017, ENAIRe operated 1.99 million flights to and from four continents (Europe, America, Asia and Africa), transporting 284 million passengers.

FADA-CATEC

CATEC is an advanced technology center that contributes to improving the competitiveness of aerospace companies through research and technological innovation, knowledge creation, technology transfer and advanced services. It is promoted by the Andalusian Foundation for Aerospace Development (FADA), an entity chaired by the Minister of Employment, Business and Commerce through the IDEA Agency, and has a staff of more than 60 specialists and technicians.

In its 10 years of experience, it has become one of the most active technological centers in Spanish and European RDI projects, standing out in fields such as robotic technologies and applications, unmanned aerial systems (UAS / RPAS) or additive manufacturing (3D printing). CATEC is currently working on more than 60 RD projects, with public research organizations as well as companies, leading several European programs, such as the European Commission's VII Framework Program and Horizon 2020.

IAI

IAI Ltd. is Israel's largest aerospace and defence company and a globally recognised technology and innovation leader, specialising in developing and manufacturing advanced, state-of-the-art systems for air, space, sea, land, cyber and homeland security. Since 1953, the company has provided advanced technology solutions to government and commercial customers worldwide including: satellites, missiles, weapon systems and munitions, unmanned and robotic systems, radars, C4ISR, business jets,



aerostructures, MRO and more. IAI is a global leader in comprehensive Remotely Piloted Aircraft Systems (RPAS) solutions with over 40 years of heritage, offering a wide range of operationally proven systems from large MALE RPAS, such as the HERON, to Mini/Tactical RPAS, such as the Bird-Eye family, with a track record of over 1,500,000 operational flight hours in over 50 countries worldwide.

University of Seville

The University of Seville is involved in the project through the GRVC research group (<https://grvc.us.es>), which has 75 researchers and engineers with strong expertise on robotics and particularly on aerial robotics. Thus, in 2013 the group participated in 13 projects (17 contracts) related to aerial robotics and unmanned aerial systems. GRVC group has a long tradition in the EU Framework Programmes leading or participating in 24 projects: 5 projects of the FP4, 4 of the FP5 (leading one), 4 of the FP6 (leading one), 8 of FP7 (leading three) and 4 of H2020 calls (leading one), most of them related to Unmanned Aerial Systems. GRVC has also participated in many successful technology transfers to companies including AIRBUS DS, EADS, BOEING, INDRA, ITURRI Group, NAVANTIA, DEIMOS and many others.

Unifly

Unifly is the global leader in the field of Unmanned Traffic Management based in Belgium. The Unifly platform connects authorities with pilots to safely integrate drones into the airspace. Authorities can visualize and approve drone flights and manage no-fly zones in real-time. Drone pilots can manage their drones and they can plan and receive flight approvals in line with international and local regulation. Unifly's award winning Unmanned Traffic Management (UTM) platform is already in use today by the national authorities of Germany, Denmark, Austria and Belgium. In the US, the NUAIR Alliance selected Unifly for their 50-mile UTM corridor in Upstate New York. Unifly also deployed the first African UTM system in support of UNICEF's drone corridor in Malawi.

SESAR Joint Undertaking

The SESAR Joint Undertaking is the public-private partnership co-founded by the European Union and Eurocontrol to transform air traffic management (ATM) into a more modular, scalable, automated, interoperable system that takes advantage of advances in digital and virtualisation technologies.

www.sesarju.eu

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