

PROJECT

## CORUS-XUAM

### Concept of Operations for euROpean U-space Services - eXtension for Urban Air Mobility

**Funding:** European (Horizon 2020)

**Duration:** Jan 2021 - Dec 2022

**Status:** Ongoing

**Total project cost:** €6,625,501

**EU contribution:** €3,999,389



**Call for proposal:** H2020-SESAR-2020-1

[CORDIS RCN : 232895](#)

#### Objectives:

CORUS-XUAM is a 24-month VLD project that will demonstrate how U-space services and solutions could support integrated Urban Air Mobility (UAM) flight operations, allowing eVTOLs/UAS and other airspace users (unmanned and manned) to operate safely, securely, sustainably and efficiently in a controlled and fully integrated airspace, without undue impact on operations currently managed by ATM. The project is proposed by the consortium that delivered the SJU CORUS U-space Concept of Operations (ConOps) in 2019, extended by the addition of UAM expertise.

The activities will start with the update of the U-space ConOps, addressing the integration of UAM/UAS operations into the airspace, also identifying new U3/U4 services. The project activities will continue with the preparation and execution of six challenging VLD campaigns in six different European locations.

These VLD activities will be at the heart of CORUS-XUAM and will support integrated operations of UAS/UAM and manned aircraft, and advanced forms of interaction through digital data exchange supported by integrated and advanced U-space services in urban, sub-urban, and inter-city scenarios as well as in and near ATM-controlled airspaces and airports. The VLDs will focus on different types of mission, such as passenger transport, logistic, delivery, emergency response and surveillance, using different U-space deployment architectures and state-of-the-art technologies. They will consider coordination between ATC and U-space, including interaction with ATCOs and pilots. The VLDs will combine flights by eVTOLs with other traffic and operations in the CTRs of major airports.

Vertiport procedures, separation, and data services will be also demonstrated.

The main results will be used to further consolidate the ConOps at the end of the project. The project will also involve extensive consultation and communication initiatives with reference Authorities, U-space stakeholders and end-users.

#### Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

**Institute type:** Public institution

**Institute name:** European Commission

**Funding type:** Public (EU)

**Other programmes:** SESAR-VLD2-03-2020 U-space capabilities and services to enable Urban Air Mobility

#### Lead Organisation:

**Eurocontrol - European Organisation For The Safety Of Air Navigation**

**Address:**

Rue De La Fusée 96  
1130 Bruxelles  
Belgium

## Partner Organisations:

### Unifly

**Address:**

LUCHTHAVENL 7A UNIT 6 AIRPORT BUSINESS CENTER  
2100 ANTWERPEN DEURNE  
Belgium

**EU Contribution:** €206,588

### The British Light Aviation Centre Limited

**Address:**

50A CAMBRINDGE STREET  
LONDON  
SW1V4QQ  
United Kingdom

**EU Contribution:** €66,250

### Direction Des Services De La Navigation Aérienne

**Address:**

Rue Henry Farman 50  
75720 Paris  
France

**Organisation Website:**

<http://www.aviation-civile.gouv.fr>

**EU Contribution:** €135,125

### Enav

**Address:**

VIA SALARIA, 16  
138 ROME  
Italy

**Organisation Website:**

<http://www.enav.it>

**EU Contribution:** €430,337

### Enaire

**Address:**

AVENIDA DE ARAGON S/N BLOQUE 330, PORTAL 2 PARQUE EMPRESARIAL LAS MERCEDES  
28022 MADRID  
Spain

**Organisation Website:**

<http://www.aena.es>

**EU Contribution:** €239,233

### Aéroports De Paris Sa

**Address:**

1 RUE DE FRANCE  
93290 TREMBLAY-EN-FRANCE  
France

**Organisation Website:**

<http://www.aeroportsdeparis.fr>

**EU Contribution:** €486,922

**Deutsches Zentrum Fr Luft Und Raumfahrt E.v****Address:**

Linder Hoehe  
51147 KOELN  
Germany

**Organisation Website:**

<http://www.dlr.de>

**EU Contribution:** €191,500

**Indra****Address:**

Avenida de Bruselas, 35  
Alcobendas Madrid  
Spain

**Organisation Website:**

<http://www.indra.es>

**EU Contribution:** €133,875

**Nats****Address:**

4000 Parkway, whiteley 4000  
Fareham, Hampshire  
PO157FL  
United Kingdom

**Organisation Website:**

<http://www.nats.co.uk>

**EU Contribution:** €177,207

**Universitat Politecnica De Catalunya****Address:**

Calle Jordi Girona 31  
8034 Barcelona  
Spain

**Organisation Website:**

<http://www.upc.edu>

**EU Contribution:** €220,125

**Skeydrone****Address:**

DE MEEUSSQUARE 35  
1000 BRUXELLES

Belgium

**EU Contribution:** €296,640

**Pipistrel Doo Podjetje Za Proizvodnjo Zracnih Plovil**

**Address:**

GORISKA CESTA 50A  
5270 AJDOVSCINA  
Slovenia

**Organisation Website:**

<http://www.pipistrel.si>

**EU Contribution:** €127,995

**Aslogic 2011 SI**

**Address:**

AVDA ELECTRICIDAD 1 PLANTA 2 PUERTA 1  
08191 RUBI  
Spain

**EU Contribution:** €64,269

**Luftfartsverket**

**Address:**

HOSPITALSGATAN 30  
602 27 NORRKOPING  
Sweden

**Organisation Website:**

<http://www.lfv.se>

**EU Contribution:** €403,500

**Dfs Deutsche Flugsicherung Gmbh**

**Address:**

AM DFS CAMPUS 10  
63225 LANGEN  
Germany

**Organisation Website:**

<http://www.dfs.de>

**EU Contribution:** €286,300

**Volocopter Gmbh**

**Address:**

ZEILOCH 20  
76646 SSRUCHSAL  
Germany

**EU Contribution:** €205,380

**Fundacio Hemav**

**Address:**

CALLE ESTEVE TERRADAS 1 9  
08860 CASTELLDEFELS

Spain

**EU Contribution:** €129,781

### **Technologies:**

Information systems

Air traffic management systems

**Development phase:** Demonstration/prototyping/Pilot Production

### **STRIA Roadmaps:**

Cooperative, connected and automated transport, Network and traffic management systems

**Transport mode:** Air transport

**Transport sectors:** Passenger transport, Freight transport  
Societal/Economic issues, Environmental/Emissions aspects,

**Transport policies:** Safety/Security

**Geo-spatial type:** Urban