



U-SPACE SEPARATION IN EUROPE

WELCOME TO THE FIRST USEPE NEWSLETTER!

In the first USEPE Newsletter we want to introduce you to the USEPE Project and inform about the main outcomes achieved so far. The project was launched in January 2021 and will end in December 2022.

WHAT IS USEPE?

The number of drones' applications is increasing and, with them, the number of drones that will be flying simultaneously in a same geographical area that will need to be safely separated between them and from manned aircraft to allow the maximum number of flights in a given airspace. The separation problem becomes even more critical when flights take place in an urban environment where buildings and extreme turbulent wind shear appears close to them, and crowds are expected on the ground.

For this reason, USEPE researches on **drones' separation methods** in high demanding environments such as cities. The project has taken a systems engineering approach where the stakeholders' needs are the basis for identifying, selecting, designing and validating through simulations which separation method is best to meet their needs at both, strategic and tactical flight phases.

FIRST USEPE WORKSHOP

The first USEPE workshop was held virtually on the 23rd of March.

The focus of this workshop was to gather, from several disciplines and areas of interest, from research to end-users, stakeholders' expectations and concerns with regards to drones' separation in highly demanding environment.

The results of the workshop discussions were transformed into formal stakeholders' needs that are being considered in the USEPE Concept of Operations as primary input.

WHAT IS NEXT?

D2-C2 will be ready for presentation in society as part of **Concept of Operations (D3.1)** soon. Stay tuned for Newsletter nº2!

NEW SEPARATION METHOD

We have researched several **separation methods** proposed by industry and researchers around the world. We have evaluated them all and by using multi-decision making techniques, we have ended up with a brand new comprehensive separation method that best adhere to the stakeholders' needs. It is named **Dynamic Density Corridor Concept, D2-C2** in short.

