EGENIOUSS

Advanced navigation solutions for UAS Delivery

BCN™ DRONE CENTER

Who We Are

The EU project Egeniouss develops accurate and reliable navigation through visual localization cloud service:

8 Partners

With expertise in navigation, AI, Geodata, UAS, and more, our consortium possesses extensive and multidisciplinary experience.

5 Countries

With representation from a broad range of regions, our solution is well-equipped to address EU challenges effectively.

Closing the Gap

With participation from SMEs, Tech Centers, Universities, and Clusters, our aim is to bridge the gap between innovations and market deployment.

The Challenge

GNSS navigation is nowadays critical for any UAS operation, however it’s performance can vary:

Urban Canyons

In cities, urban canyons interrupt and reflect satellite signals making navigation unreliable und imprecise.

Jamming & Spoofing

Satellite signals can be easily manipulated or blocked, presenting safety and security risks for the operation.

GNSS Dependance

Overreliance on a single source of geolocalisation poses certain safety risks but also hinders many professional and consumer applications to unfold their full potential.

Our Approach

A wide array of key technologies are being implemented to deliver an enhanced solution:

Visual Navigation

Computer Vision algorithms and neural networks combined with Photogrammetry techniques accurately associate images geometrically.

EGNSS

The European GNSS Galileo and its augmentations, such as the High Accuracy Service (HAS), are the backbone of Egeniouss multi-sensor navigation.

Cloud

Egeniouss is designed as a cloud solution, being available through a platform-independent API. Furthermore, crowdsourcing is used as an opt-in feature to maintain the data integrity in shorter intervals.

Core Features

Our proposed solution offers the following benefits for UAS operations:

Accuracy

With surveying-grade geodata in the background, Egeniouss aims for an absolute accuracy of up to 10 cm.

Reliability

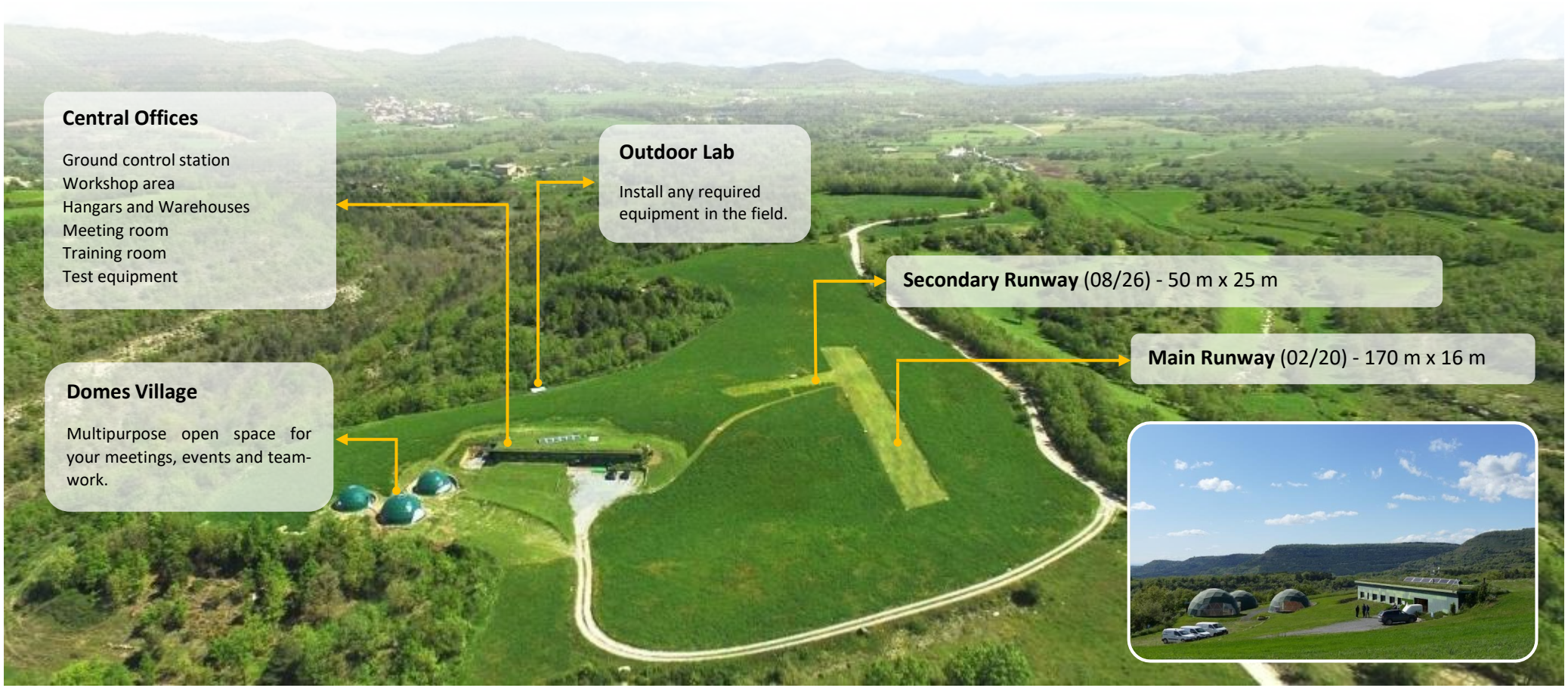
Egeniouss offers a redundant positioning solution enabling higher reliability even in difficult receiver environments.

Platform Independence

Egeniouss is a platform-independent cloud-based solution. It can run on smartphones, drones and will later be made available for other platforms as well..

Egeniouss Validation

Segregated Airspace (TSA-31)



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