



Development of Safety Impact Assessment Indicators for U-Space Societal Acceptance

Thesis/Project Description

Overall Project Description

Project ImAFUSA focuses on quantifying a variety of understudied factors influencing societal acceptance of UAM in urban, peri-urban and inter-urban areas and is part of a Europe-lead series of projects to deliver the Digital European Sky. The aim is to deliver an “**Impact and capacity Assessment Framework for U-space Societal Acceptance**” (ImAFUSA) to assist Local Authorities and other U-space stakeholders and users with the delivery of socially acceptable and beneficial UAM deployment in cities. The thesis project proposed is part of ImAFUSA project focusing on societal perception of safety in urban air mobility with regards to height from ground, distance from citizens or distance from public infrastructure of UAM vehicles and drones and aims at developing innovative performance indicators will be described while mathematical formulas and algorithms will be developed to quantify them and will be implemented in a simulated environment of real future cases.

Project Specific Tasks

The project covers the following tasks:

- Conduct a review of the current safety parameters for flight in urban areas and the state of the art of the perceived/acknowledge challenges in safety for the deployment of UAM and drones.
- Determine a new set of safety indicator specific to U-Space,
- Develop a questionnaire/survey to be submitted to the public in up to seven countries (within the partners of ImAFUSA).

Qualitative and quantitative data from the questionnaires will be implemented in the development of algorithms for future U-Space regulations.

Deliverable: A report (in the form of a thesis or project report) for theoretical UAM impact and capacity assessment framework

The duration of the project is between 5 to 6 months (extendable), with deliverables in June 2024.

Candidate Description

We are looking for 1 or 2 candidates who have a strong interest in aviation and in future Urban/Advanced Air Mobility interested in working on this exciting European project.

Preferably, the candidate will have a basic knowledge (or the interest in) on aviation safety and regulations as well as optimization processes. A knowledge of drone regulations and U-Space is a plus.

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