Context

The proliferation of small unmanned aerial systems (sUAS), particularly mini-class drones (<15 kg), poses an increasingly complex threat to military and civilian infrastructure. On the detection side, traditional counter-UAS systems often rely on static sensors and manual operations, offering limited scalability, sluggish response times, and vulnerability in GNSS-denied environments.

Objective

The RAVN project responds to both to these challenges by introducing a next-generation, modular, and scalable Counter-UAS system that can both detect further away from the target and respond while the threat is not yet close to the target.

DEFRA 25: RAVN
Rapid Aerial Vehicle Neutralisation

Methodology

RAVN combines advanced radar without rotational detection lag, with computer vision and advanced sensor fusion, with C-UAS deployed away from the target using autonomous GNSS-free navigation capability and providing directed kinetic response and taking advantage of UWB adhoc inter-drone positioning and communication.

Dr ir Charles Hamesse
Promotor/Researcher

To be recruited
Researcher

Partners