

PERIVALLON TOOL CARDS



The PERIVALLON project aims to deliver an improved intelligence picture of organised environmental crime and develop tools for **detection, prevention, and impact assessment**. It uses geospatial intelligence, remote sensing, online monitoring, and predictive analytics to enhance investigation processes and methodologies.

These cards present **13 tools**, each a result of the development and validation efforts within the PERIVALLON project.

Maximised surveillance swarm optimisation module



Exploitation Type



Scientific



Partner in Charge



Description

An autonomous software module that generates optimized flight plans for UAV swarms, ensuring efficient area coverage while minimizing time and energy use.



At a glance

Autonomous optimisation of UAV swarm missions for maximum area coverage and minimal resource use.



Who is this tool developed for?



Academic & Research Institutions



Emergency Response & Security Agencies



UAV Manufacturers & Technology Providers



Environmental Monitoring & Enforcement Agencies



Use Case

Pre-mission and in-field planning of multi-drone surveillance operations such as environmental monitoring, border patrol or emergency response to ensure full ROI coverage under dynamic conditions.



Benefits & Added Value

- Successfully covers more than 90% of the target area and up to 99.7%.
- Cuts mission time and energy use by up to 30 %, enabling faster deployment for emergency services and border patrol.
- Lowers operational expenses and carbon footprint through energy-aware routing.
- Compatible with any UAV system, aligning with open-architecture autonomy trends.



Co-funded by the European Union

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This project has received funding from the European Union's Horizon Europe programme for research and innovation under grant agreement No. 101073952.