HORIZON EUROPE · NATURE 2027 · PARTNER PROFILE

Pegasus Sky Tech

Drone-based biodiversity, marine and environmental monitoring SME from Western Greece

We are a professional drone operator based in Arta, Greece, serving environmental organisations, municipalities, ports and energy operators. We bring field-proven aerial survey methods, thermal and autonomous drone systems, and in-house AI detection to research and innovation consortia.

Reference project: aerial sea turtle surveys for ARCHELON

Research programme for ARCHELON (Sea Turtle Protection Society of Greece) across the entire Amvrakikos Gulf and Western Peloponnese, using systematic aerial sea-surface scanning to detect loggerhead sea turtles (*Caretta caretta*). The method transfers to monk seals, cetaceans, seabirds, nesting beaches, wetlands, lagoons and marine litter.

Fleet & sensors

- DJI Matrice 30T (thermal + RGB)
- DJI Dock 3 with Matrice 3TD / 4DT: autonomous drone-in-a-box, 24/7 operations
- Mavic 4 Pro, Avata 2 (FPV)
- Sony cinema cameras, 360° documentation

AI & data

- In-house Python / YOLO detection pipelines
- Currently used for wildfire smoke detection from PTZ cameras
- Adaptable to species detection, counting and habitat mapping

Regulatory readiness

- EASA A1/A3, A2, STS-01, STS-02 (Specific Category)
- Operations Manual, ERP and SORA approvals with the Hellenic CAA
- U-Space (HUSI) involvement; BVLOS-oriented and coastal operations

Track record

- Wildfire aerial surveillance for municipalities (e.g. Aktio-Vonitsa)
- Thermal/RGB inspections of wind turbines and infrastructure
- Autonomous port surveillance (Igoumenitsa)
- Power-grid imaging: Stage 2, Svenska kraftnät tender (Sweden)

What we offer a consortium

Aerial survey protocol design · field data-collection campaigns · AI-based detection and counting · validation of drone methods against conventional and eDNA monitoring for cost-effectiveness · pilot sites in Natura 2000 lagoons, wetlands and sea turtle habitats of Western Greece (Amvrakikos Gulf, Ionian coast, Western Peloponnese).

NATURE-2027-02-05 · Biodiversity monitoring

04-01 · Ocean observing

02-02 · Restoration living labs

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