

VERTI-GO

Vertical Operations ready to GO — integrating Innovative Air Mobility into the European ATM/U-space

Coordinator	Honeywell International s.r.o. (Czechia)
Duration	June 2026 – May 2029 · 36 months
EU grant	~ €5.0 M
Call	HORIZON-SESAR-2025-DES-IR-02-WA6-3
Consortium	11 partners + 3 affiliated entities
Structure	6 work packages · 2 operational solutions

36

months duration

11

consortium partners

6

work packages

2

operational solutions

THE TWO SOLUTIONS



SOLUTION 1

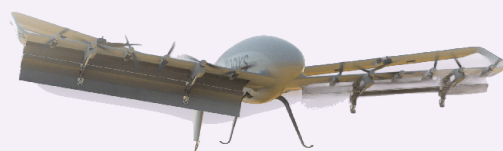
Manned IAM operations under VFR in European airspace

TRL 4 to TRL 7 · Lead: ITG · WP2 / WP3

FF-ICE-style digital flight planning, vertiport/ELS booking and release, ATC/FIS automation, and real flight demonstrations in Spain with the Vertical Aerospace Valo (Málaga, Marbella/Puerto Banús, U-space).

Vertical Aerospace Valo

Electric eVTOL · 1 pilot + 4 passengers · >160 km range · ~241 km/h cruise · ~30x quieter than an equivalent helicopter. Currently the only manned eVTOL aircraft produced in Europe.



SOLUTION 2

ATM and U-space eco-system for IAM operations under IFR

TRL ~4, elements up to TRL 6 · Lead: Honeywell · WP4 / WP5

Medium Risk (SAIL III-IV) remotely piloted operations, IAM access to U-space in controlled airspace, integration of IAM into complex TMA, digital remote tower and cockpit/GCS automation. Validation with the Odys Laila and through connected real time simulations.

Odys Laila

Unmanned VCA · series hybrid-electric propulsion · up to 700 km range · 6 hours endurance · designed for mid-haul cargo.

CONSORTIUM



Project objectives and ambition

VERTI-GO responds to call HORIZON-SESAR-2025-DES-IR-02-WA6-3, delivering ATM Master Plan action **IR-6-04** (“Enable IAM/VTOL aircraft operations, manned and unmanned, including in complex environments, congested areas and vertiports”), aligned with strategic deployment objective **SDO-10** (Enable innovative air mobility and drone operations). Beyond aircraft certification and vertiport infrastructure, the unresolved problem addressed by the project is the **safe integration of Innovative Air Mobility (IAM) into the current ATM/U-space ecosystem** and its coexistence with all other airspace users.

“VERTI-GO will let Europe watch its first real commercial Innovative Air Mobility operations become reality”

The project positions itself as the first SESAR-funded project to fly real commercial European manned eVTOL flights on real routes.

Five main outcomes

- 1 An IAM flight planning framework (FF-ICE-like flight planning concept).
- 2 A booking framework for vertiports and contingency landing sites (CLS).
- 3 Operational procedures across six operational environments, from uncontrolled VFR to IFR in complex controlled TMA.
- 4 ATM/U-space services for IAM in low-altitude airspace.
- 5 Advanced cockpit automation (manned) and ground control station/GCS automation (unmanned), towards automation level 3–4.

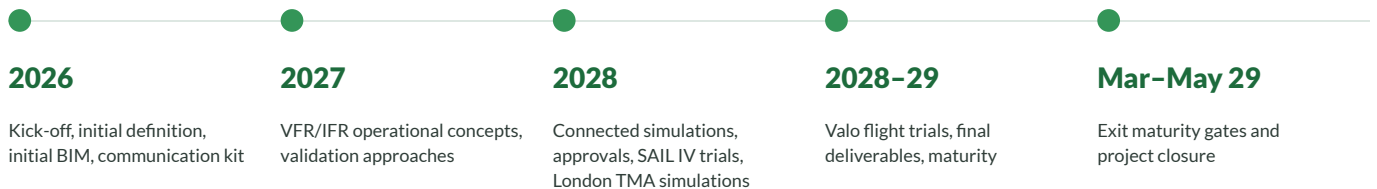
Technology readiness

- Solution 1 (manned VFR): TRL 4 to TRL 7.
- Solution 2 (IFR ecosystem): TRL 3 to TRL 4, with the unmanned SAIL III–IV operation reaching TRL 6 through real flight.

Novelty beyond the state of the art

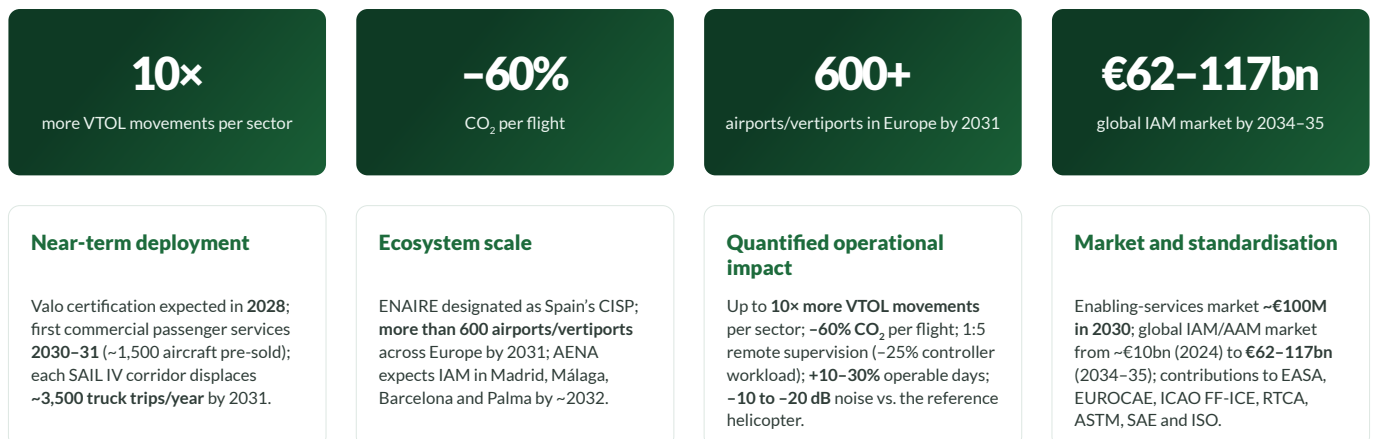
The project builds on **OPERA** (IAM operations), **EUREKA** (vertiports), **U-ELCOM** (U-space market) and **CorusXUAM** (U-space concept), extending them to real commercial flights with the Vertical Valo aircraft, to real SAIL III–IV drone operations, to a vertiport booking framework covering the legal/contractual aspects of CLS, and – for the first time – to the use of U-space by certified manned aircraft.

ROADMAP



EXPECTED IMPACT

The project covers the SESAR key performance areas of Capacity, Cost-efficiency, Safety, Security, Human performance, Flexibility, Access and equity, and Interoperability, with Environment as a derived benefit.



Proposed solutions

Two complementary operational solutions, validated first in simulation and then in real flight, that together cover the full range from uncontrolled VFR to IFR in complex controlled airspace.

SOLUTION 1

Manned IAM operations under VFR in European airspace

TRL 4 to TRL 7 • Lead: ITG • WP2 / WP3

Vertiport/CLS booking and management framework, advanced U-space services for vertiports and VCA, and ATC/FIS automation, culminating in two real demonstration flights with the Vertical Aerospace Valo.

DESIGN AIRCRAFT

Vertical Aerospace Valo

Electric eVTOL • 1 pilot + 4 passengers • >160 km range • ~241 km/h cruise • ~30× quieter than an equivalent helicopter. Currently the only manned eVTOL aircraft produced in Europe.

VALIDATION SCENARIOS

Case A — departs from the controlled airport of Málaga (LEMG), ~60 km coastal route, lands at the Puerto Banús heliport (Marbella, declared U-space volume), with two CLS booked/released en route.

Case B — departs from the uncontrolled Aeroclub aerodrome (LEAX), VFR approach synchronised with commercial IFR traffic at Málaga.

VALIDATION PLATFORMS

CRIDA's ORION cockpit simulator integrated with ENAIRE's ATC/tower simulator, the U-HUB platform (Spain's CISP) and ITG's FF-ICE flight plan services (DALIAH platform), ahead of the real flights.

SOLUTION 2

ATM and U-space eco-system for IAM operations under IFR

TRL ~4, elements up to TRL 6 • Lead: Honeywell • WP4 / WP5

Demonstration of unmanned SAIL III–IV operations, IFR procedures for vertiports with U-space in controlled airspace (including the “digital remote tower” concept), traffic management at scale in complex controlled TMA, and automation functions (level 3 to 4).

DESIGN AIRCRAFT

Odys Laila

Unmanned VCA • series hybrid-electric propulsion • up to 700 km range • 6 hours endurance • designed for mid-haul cargo.

VALIDATION SCENARIOS

SAIL IV logistics corridor in Spain; analysis and simulations of VCA operations in U-space within controlled airspace in Austria and Czechia; complex London terminal airspace (City, Heathrow, Gatwick) for the needs analysis, validated through London TMA simulations.

VALIDATION PLATFORMS

Odys Laila, Frequentis' XTC virtual remote tower, NATS' TAAM simulation platform (modelling London class D airspace), and Honeywell's cockpit simulator and ground control station (GCS).

A SINGLE SHARED ARCHITECTURE

Both solutions share a common system architecture and a single IAM flight planning framework: Solution 1 develops a VFR-compatible subset that Solution 2 subsequently integrates into a complete VFR+IFR framework; the vertiport booking framework follows the same logic, starting from the Málaga corridors and generalising to IFR/complex environments.

EXPECTED BENEFITS

OPERATIONS

More predictable and efficient IAM flights, with less reliance on voice

VERTIPORTS

More efficient use of vertiports and emergency landing sites

SAFETY

Safe coexistence between IAM and conventional traffic

REGULATION

Regulatory and standardisation recommendations for VFR and IFR

Consortium participants – Role of each partner

11 beneficiaries and 3 affiliated entities, covering the full IAM value chain: manufacturers, ANSPs, a vertiport operator, an air operator, CNS/ATM industry and a reference international institution.

Partner	Role in the project
Honeywell International s.r.o. (coordinator) Czechia · Avionics / CNS industry	Overall project coordination (WP1) and reporting to the SJU/EC. Leads WP4 and WP5 (Solution 2 IFR concept and validation). Contributes its own cockpit simulator and ground control station (GCS). Co-leads with Frequentis the simulations of IAM operation in U-space within controlled airspace.
AENA S.M.E. SA Spain · Airport and vertiport operator	Leads the VFR flight plan standard task (WP2) and the extension of the vertiport booking framework from VFR to IFR (WP5). Contributes access to and infrastructure at Málaga airport for the VCA operations.
Aerosolutions Spain SL Spain · VCA operator / airline	Leads the coordination of the test flights (WP3): operational procedures, operations control centre activities, flight preparation and execution, and the Solution 1 cost-benefit analysis (CBA). Coordinates validation Cases A and B and manages the CLS/alternate sites.
ENAIRES (+ CRIDA, affiliated entity) Spain · ANSP (+ ATM research)	Leads ground ATC system enhancement and validation planning (WP2). Leads the execution of the manned VCA simulation (WP3) with CRIDA's ORION simulator integrated with ENAIRES's ATC/tower simulator. Contributes the U-HUB platform as Spain's CISP.
EUROCONTROL Belgium · International institution	Leads standardisation and regulation activities (STAND®) across the project and the Solution 2 safety activity. Leads in WP5 the flight plan approval processes and the interpretation of validation results, as well as the recommendations for transition to IAM/VCA operations under IFR.
Frequentis AG (+ Orthogon, S&S) AT / DE / SK · CNS / ATM / U-space industry	Leads communication, dissemination and exploitation (WP6). Leads the enhanced IAM flight plan requirements and U-space access in controlled airspace (WP4), and the trajectory exchange concept (WP5). Contributes the XTC lightweight remote tower.
Fundación Instituto Tecnológico de Galicia (ITG) Spain · Technology / research institution	Leads the whole of Solution 1 (WP2/WP3): IAM flight plan management and vertiport integration via FF-ICE/U-space, and consolidation of results. Contributes the DALIAH simulation platform as the basis for the U-space services.
NATS (En Route) plc United Kingdom · ANSP	Co-leads IAM accommodation in the ATM ecosystem with EUROCONTROL (WP4). Leads the validation of VCA operations integrated into the London TMA (WP5) through fast-time simulation with the TAAM platform.
Odys Aviation GmbH Germany · Unmanned VCA manufacturer	Leads the enabling of remotely piloted SAIL III-IV operations (WP4) and all SAIL IV simulation/test flying (WP5). Contributes the Odys Laila aircraft for the Almería-Málaga demonstration corridor.
ANS CR (Air Navigation Services of the Czech Republic) Czechia · ANSP	Contributes ANSP expertise to the analysis of U-space in controlled airspace (WP4) and to the validation of operations at a controlled airport and IFR transition recommendations (WP5); provides ATCO staff for validation execution.
Vertical Aerospace Group Ltd United Kingdom · Manned eVTOL manufacturer	Leads data analysis and the production of the Solution 1 validation report (VALR) (WP3), demonstrating TRL 7. Contributes the Valo aircraft, its simulator and its test facilities for the demonstration flights.

EXECUTIVE SUMMARY

- A 36-month Horizon Europe / SESAR 3 Innovation Action (Jun 2026 – May 2029), coordinated by Honeywell, with ~€5.0M of EU grant funding.
- Its ambition is to achieve the first real commercial Innovative Air Mobility operations in Europe.
- It addresses the unresolved challenge of safely integrating IAM into today's ATM/U-space, beyond aircraft certification.
- It develops two complementary solutions: manned VFR (Solution 1, TRL 4 to 7) and manned/unmanned IFR (Solution 2, TRL 3 to 4).
- Solution 1 culminates in real Vertical Valo flights between Málaga and Marbella/Puerto Banús.
- Solution 2 validates an unmanned SAIL III-IV cargo corridor with the Odys Laila, and simulates the operations in London TMA and in regional airports (Czechia/Austria).
- The consortium brings together 11 partners and 3 affiliated entities: manufacturers, ANSPs, an airport/vertiport operator, an air operator and EUROCONTROL.
- It builds on the earlier SESAR projects OPERA, EUREKA, U-ELCOM and CorusXUAM, extending them to real commercial scale.
- Expected impact includes up to 10× more VTOL movements per sector, ~60% CO₂ per flight and potential deployment across more than 600 European airports by 2031.
- Its results feed directly into European standardisation (EASA, EUROCAE, ICAO FF-ICE) and the U-space 2.0 roadmap.