



ACCELERATE



AdvanCing UAVs teChnology to Enable monitoRing for A susTainable enviromEnt

Welcome to the 2nd volume of the ACCELERATE project Newsletter series



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ABOUT

ACCELARATE is a 48-month research project dedicated to advancing the role of Unmanned Aerial Vehicles (UAVs) in fostering environmental sustainability. In an era where climate change poses escalating threats to ecosystems, societies, and cultural heritage, ACCELARATE seeks to unlock the full potential of UAV-based monitoring systems as precise, flexible, and scalable tools for environmental observation.

CONTACT US



Funded by
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THIS PROJECT HAS RECEIVED FUNDING FROM THE
EUROPEAN UNION'S HORIZON EUROPE RESEARCH AND
INNOVATION PROGRAMME UNDER GRANT AGREEMENT
NO. 101182930

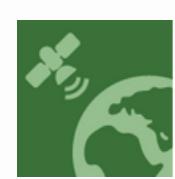
PUBLICATIONS



An Integrated GPR and Magnetometry Survey of the Roman Fort of Aquis Querquennis (Northwest Iberia)

Pereiro, T. d., Fonte, J., García Sánchez, J., Ribeiro, F., & Ferrer Sierra, S.

Remote Sensing, 17(10), 1785. <https://doi.org/10.3390/rs17101785>



remote sensing

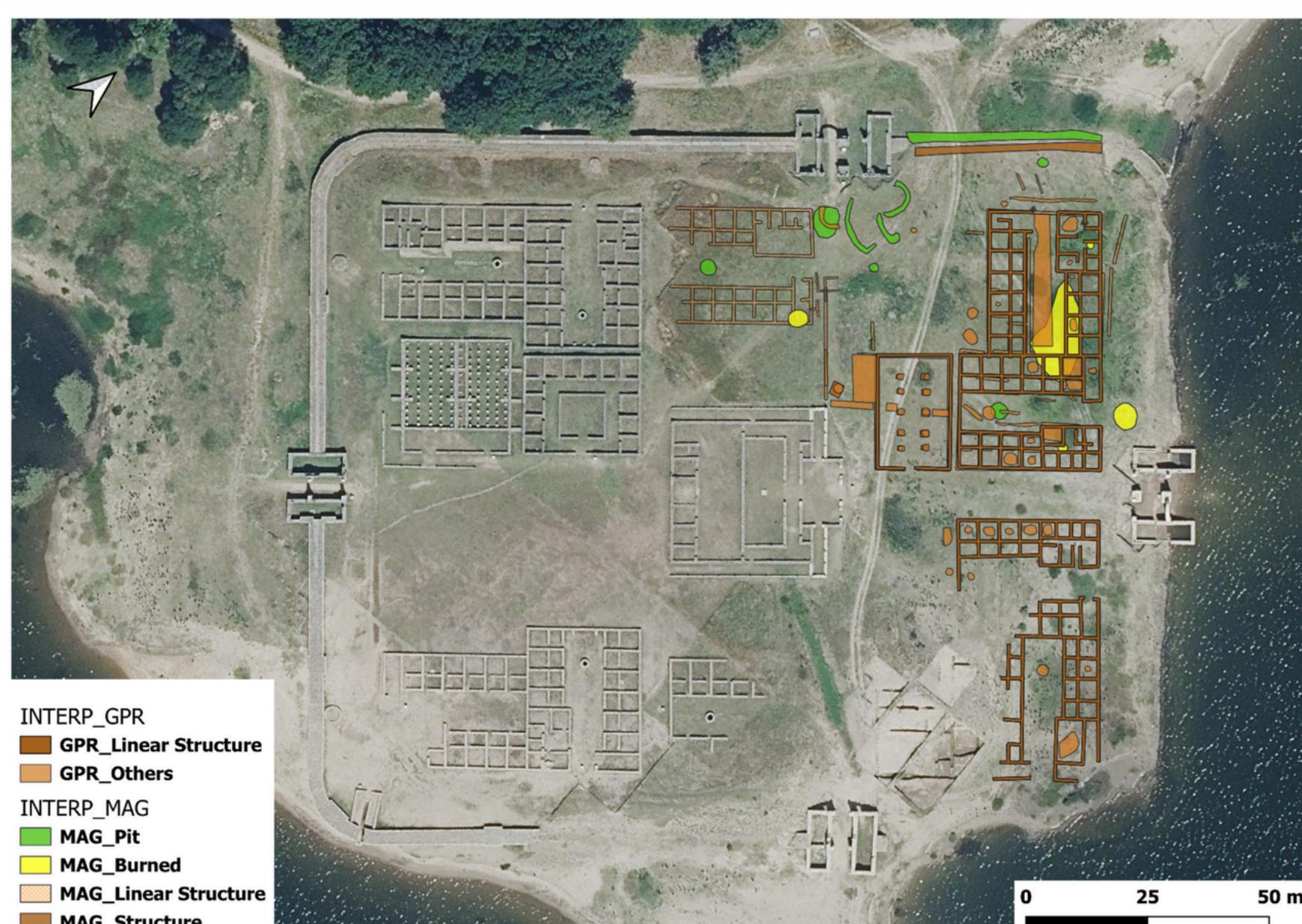
Summary



The situation of the Roman fort of Aquis Querquennis, marked with a red star, in Ourense, Galicia (northwest of Spain).

A geophysical survey using magnetic gradiometry and ground-penetrating radar was conducted at the Roman fort of Aquis Querquennis to map buried structures and improve understanding of its layout.

This research offers spatial data on Aquis Querquennis, an important site from the late first to early second century AD. It is strategically located along the Via XVIII, linking key Roman sites in a gold mining region.



Digital interpretation of geomagnetic and GPR data over orthophoto (PNOA 2023).



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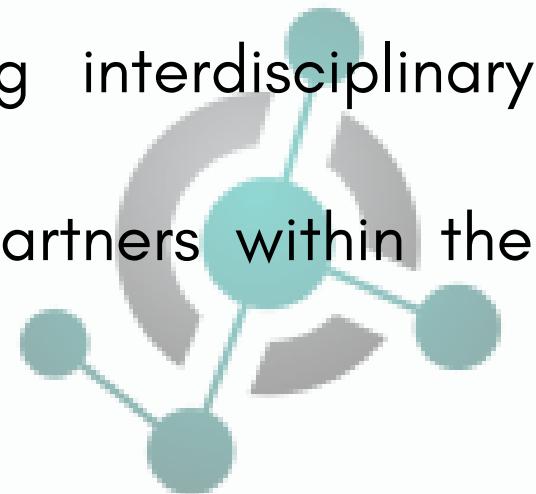
SECONDMENT TESTIMONIALS

GEOSENSE's Secondment to INNOV-ACTS LTD in Nicosia, Cyprus



During her stay, she collaborated closely with the INNOV-ACTS team, contributing to WP2 (Hardware Developments), focusing on Task 2.1: State-of-the-art analysis, and to WP3 (Software Development), with emphasis on Task 3.1: Definition of specifications & software architecture.

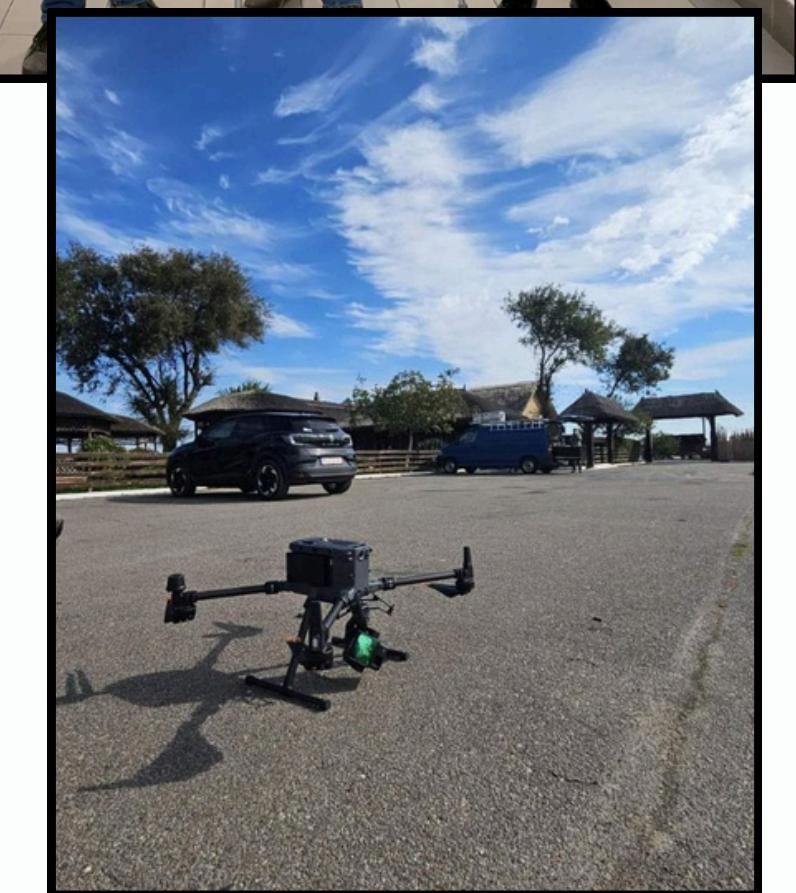
This secondment enhanced her expertise in UAV system integration and data-processing workflows, while promoting interdisciplinary collaboration and knowledge exchange among partners within the ACCELERATE consortium.



AGFUTURA Secondment to University of Bucharest, Romania

From September 13 to October 15, 2025, Mario Petkovski and Bruno Jevremovikj from Ag Futura Technologies took part in a secondment at the University of Bucharest, hosted under the ACCELERATE MSCA Project.

During their stay, they worked closely with Professor Ionut Sandric, strengthening collaboration in the field of UAV Services and exploring innovative approaches to drone-based applications as part of activities in Work Package 4: Case studies Implementation.



SECONDMENT TESTIMONIALS



ERA Arqueologia SA Secondment to University of Exeter, England



Within the ACCELERATE MSCA PROJECT project, João Fonte, a researcher with ERA Arqueologia SA, undertook a secondment at the University of Exeter, UK, from June 9th to June 19th, 2025.

Working with Ioana Oltean, João Fonte focused on in-depth case-study discussions and the development of preliminary research outputs, fostering international collaboration within the project

GEOSENSE's Secondment to TOP VIEW, Italy



Under the MSCA ACCELERATE Project, Elisavet Mamagiannou, researcher at GeoSense, completed her secondment at TOPVIEW from 5-22 September 2025.

She contributed to WP2 (Hardware Developments) by focusing on Satellite IoT communications for UAV telemetry and control, working with colleagues. Her expertise included GNSS, LTE, 5G, FLARM technologies, UAV regulatory compliance, and traffic management tools.

This secondment enhanced her technical perspective and encouraged interdisciplinary collaboration within the ACCELERATE consortium.

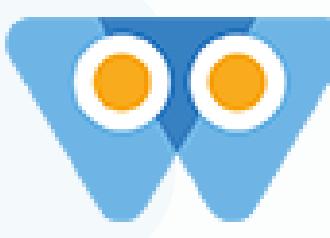
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SECONDMENT TESTIMONIALS



GEOSENSE's Secondment to WaltR, France



WaltR

As part of the MSCA ACCELERATE Project, Elisavet Mamagiannou from GeoSense completed a secondment at WaltR from June 5-21, 2025. She worked with colleagues on UAV sensor integration, environmental impact assessment, and planning for agricultural and air quality monitoring use cases.

This experience improved her technical skills and fostered interdisciplinary and international collaboration.



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SECONDMENT TESTIMONIALS

HUA Secondment to AG FUTURA TECHNOLOGII DOOEL SKOPJE (AGFT)



Dr. Dimitris Zbainos, Associate Professor at Harokopio University of Athens, was seconded to Agfutura (from July 27 to August 14) as part of his research secondment under the MSCA ACCELERATE project (Grant Agreement No. 101182930). During his stay, Dr. Zbainos collaborated with fellow ACCELERATE researchers to integrate emerging educational technologies into STEM curricula. His work focuses on sustainability, digital transformation, and inclusive approaches to educational assessment. This secondment promotes mutual knowledge exchange and strengthens interdisciplinary research collaborations between the two institutions.



FIELD CAMPAIGNS



Field Campaign for Coastal Litter Mapping Use Case



Coastal litter pollution is a major environmental challenge impacting marine ecosystems and coastal communities.

Drones and AI technologies provide effective tools for monitoring and addressing this issue.



Using UAVs with RGB, thermal, and multispectral sensors, we gathered high-resolution imagery to enhance mapping and assessing of coastal litter.

This effort involved collaboration among the HUA, INNOVACTS, and GeoSense teams, with support from the Municipality of Palaio Faliro



The ACCELERATE project aims at enhancing the detection and management of coastal litter using advanced technology and research.

On 22 October 2025, the team conducted a field sampling and UAV data collection campaign at Batis Beach, Glyfada, Greece

FIELD CAMPAIGNS



Field Campaign for Agricultural Monitoring Use Case



As part of the ACCELERATE project (Horizon Europe, MSCA Staff Exchanges), GeoSense collaborated with Harokopio University of Athens to conduct the first drone-based data collection flight at NIKOS LAZARIDIS vineyards in Drama, with permission from the winery.



The July 30, 2025 flight included missions at various altitudes using RGB, multispectral, and thermal cameras as part of Use Case 2 (UC2) in Work Package 4 (WP4).



This initiative represents an important step towards leveraging drone and artificial intelligence technologies in sustainable agriculture, opening new pathways for improved understanding and efficient management of crops.

EVENTS

The first workshop of the ACCELERATE project will be organised during the 45th EARSeL Symposium, hosted by the Department of Geography at Harokopio University

UAV's Applications for Sustainable
Environmental Management

List of topics



We welcome contributions on, but not limited to, the following topics:

- UAVs for monitoring environmental hazards, such as floods, fires, landslides, and pollution events.
- Advanced UAV sensor technologies (thermal, multispectral, hyperspectral, LiDAR).
- Integration of UAV data with satellite remote sensing, GIS, and modeling platforms.
- UAV-based monitoring of ecosystems, biodiversity, and natural resources.
- UAVs in water resources management, including wetlands, rivers, and coastal systems.
- Applications of artificial intelligence and machine learning in UAV data analysis.
- Policy, regulatory, and ethical considerations for UAV use in environmental contexts.
- Case studies on UAVs contributing to the UN Sustainable Development Goals (SDGs).

The Workshop's Scientific Committee:

- Lammert Kooistra - Wageningen University & Research, Netherlands
- Salvatore Manfreda - University of Naples Federico II, Italy
- George P. Petropoulos - Harokopio University of Athens, Greece
- Ionuț Sandric - University of Bucharest, Romania
- Anna Zmarz - University of Warsaw, Poland

The Call for Abstracts will open on 02 December 2025.

We look forward to your contributions and your support!



EVENTS

45th EARSeL Symposium

29 SEPTEMBER – 02 OCTOBER 2026

VENUE PLACE:
DEPARTMENT OF GEOGRAPHY,
HAROKOPIO UNIVERSITY OF ATHENS,
GREECE

CALL FOR ABSTRACTS OPENS:
02 DECEMBER 2025



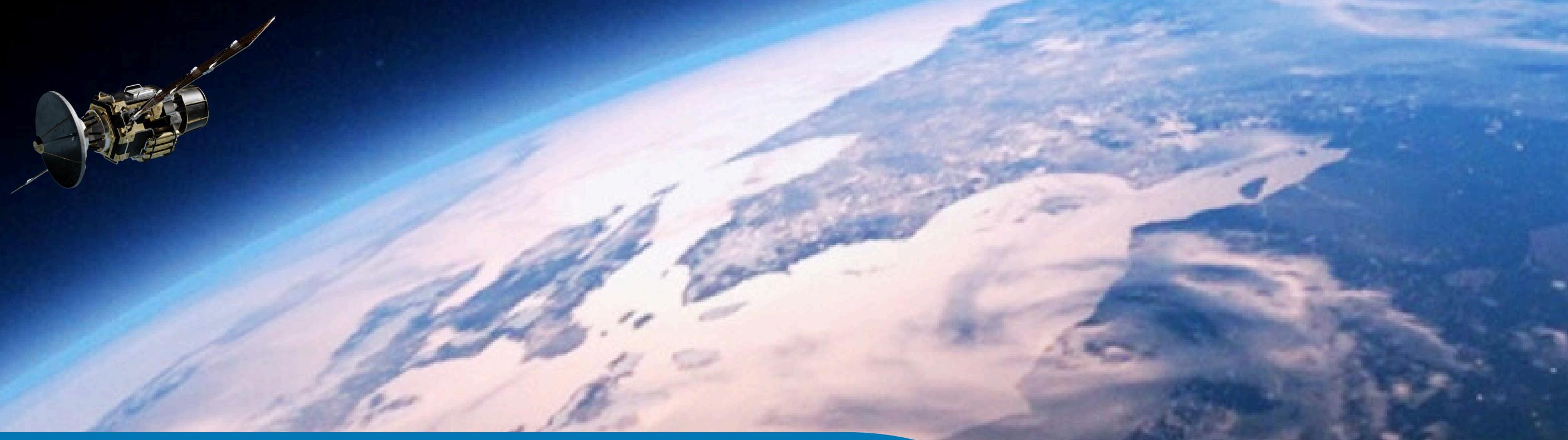
More info at: <https://athens2026.earsel.org/>



<https://www.facebook.com/profile.php?id=61583449766920>



<https://www.linkedin.com/company/45th-earsel-symposium/>



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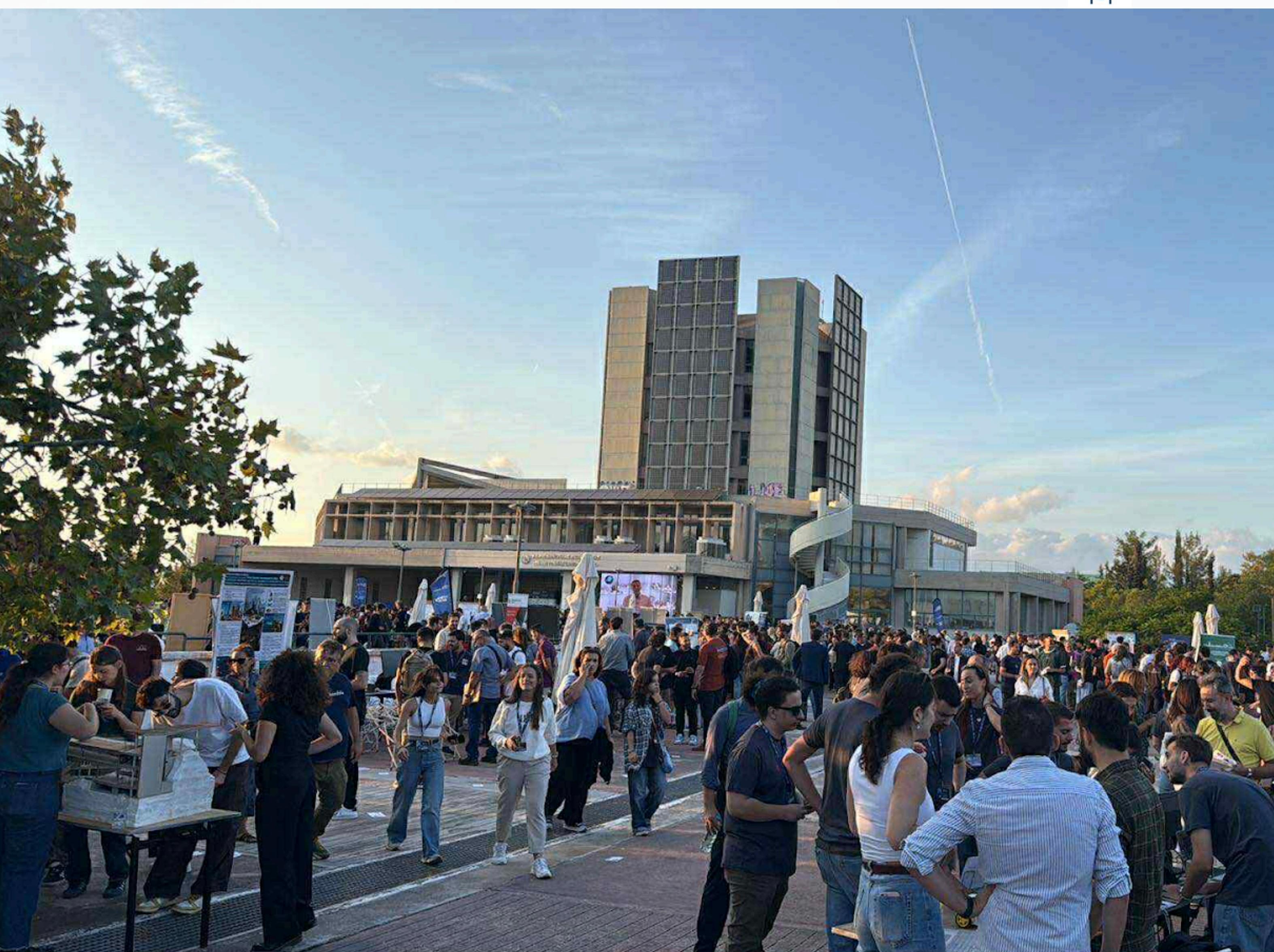
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EVENTS

PARTICIPATION TO EUROPEAN RESEARCHER'S NIGHT

On September 30th, researchers from Harokopio University (HUA) involved in ACCELERATE project, engaged with academics, school students, and the wider public to share project results.

The event offered a valuable opportunity to communicate scientific findings and bring ACCELERATE's research closer to society.



ACCELERATE SOCIAL MEDIA



Website

<https://www.accelerate-msca.eu>



LinkedIn



Facebook

<https://www.facebook.com/people/Accelerate-MSCA/61572219954007/>



Email

accelerate@hua.gr

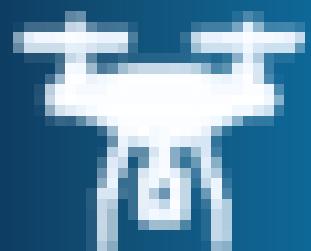
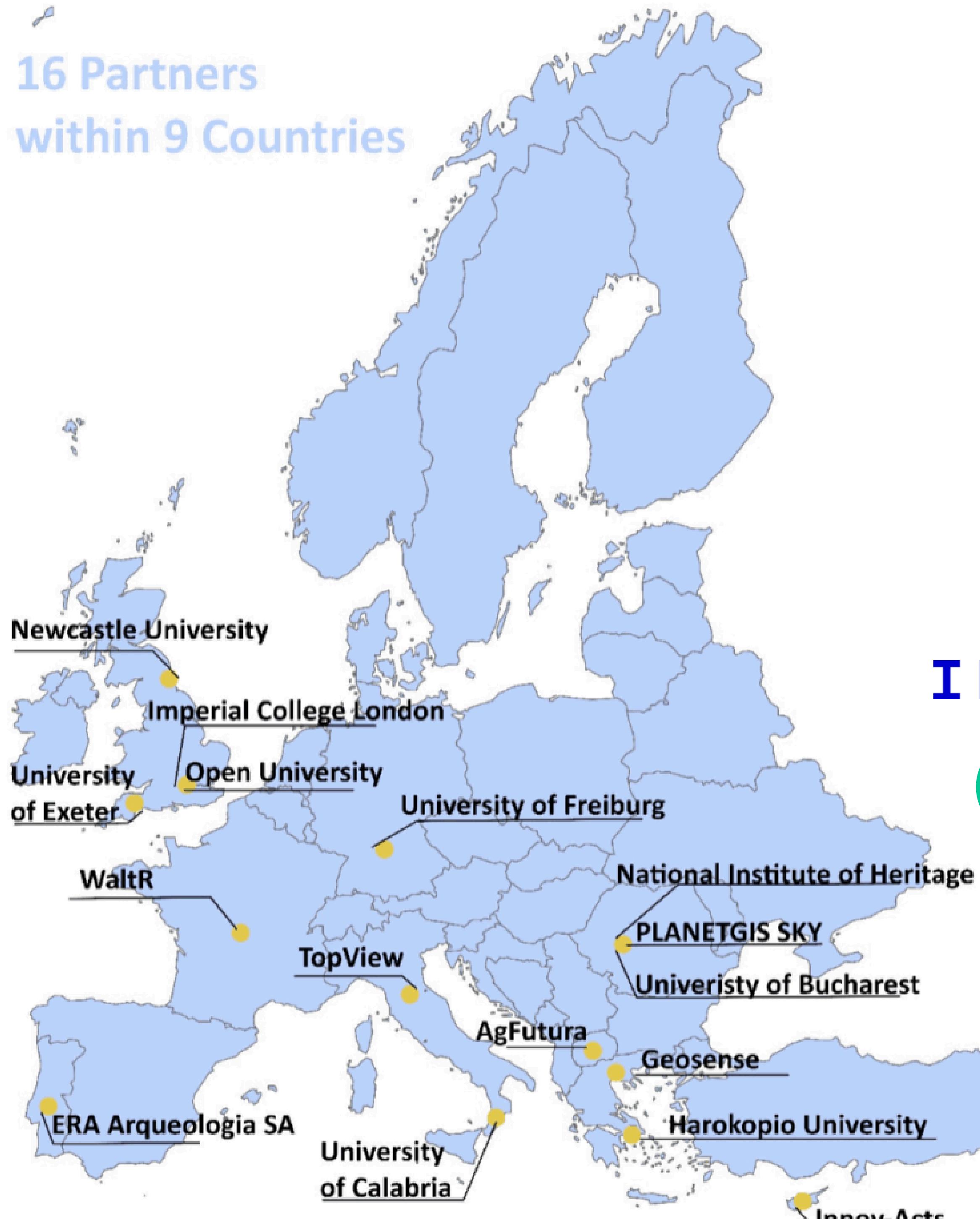


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ACCELERATE CONSORTIUM

16 Partners
within 9 Countries



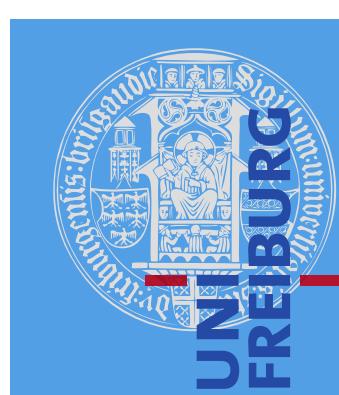
ΧΑΡΟΚΟΠΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ
HAROKOPIO UNIVERSITY



IMPERIAL



University
of Exeter



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We look forward to your contributions and your support



Project Title: ACCELERATE AdvanCing UAVs teChnology to Enable
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Coordinator: Harokopio University of Athens

Principal Investigator: Dr. George P. Petropoulos

Duration: 48 Months



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