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EXCELSIOR Project

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Work Package:	WP6 Strategic Growth Roadmap
Deliverable:	D6.13 Report on the extroversion programme activities (update 1)
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Executive Summary

This deliverable provides a comprehensive review of the extroversion-related actions undertaken during the 18-month period from Month 49 (October 2023) to Month 66 (March 2025) of the EXCELSIOR project implementation. The extroversion programme is designed to enhance the visibility, outreach, and strategic positioning of the ERATOSTHENES CoE, enabling it to address both regional and European challenges effectively.

The programme's key objectives include:

- Expanding the knowledge and perspectives of ERATOSTHENES CoE's staff through exposure to international best practices and emerging trends.
- Participating in global conferences, workshops, and networking events to shape ERATOSTHENES CoE's strategic direction and foster collaborations.
- Conducting targeted training sessions and engaging in discussions with industry professionals to facilitate knowledge exchange and strengthen partnerships.

This deliverable provides a detailed analysis of the activities carried out within this framework, evaluating their impact and contribution to the overall objectives of the EXCELSIOR project.



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ABBREVIATIONS

RP	Reporting Period
WP	Working Package
CoE	Centre of Excellence
CUT	Cyprus University of Technology
NOA	National Observatory of Athens
DLR	German Aerospace Centre
TROPOS	Leibniz Institute for Tropospheric Research
PC	Project Consortium
AI	Artificial Intelligence
DEC	Department of Electronic Communications
MedRIN	Mediterranean Regional Information Network
NASA	National Aeronautics and Space Administration
ESA	European Space Agency
EO	Earth Observation
CAMS	Copernicus Atmosphere Monitoring Service
NCP	National Collaboration Program
EARSC	European Association of Remote Sensing Companies
GIS	Geographic Information Systems
IRC	International Radiation Commission
IAMAS	International Association of Meteorology and Atmospheric Sciences
GRSS	IEEE Geoscience and Remote Sensing Society
SOC	Soil Organic Carbon
NERF	Neural Radiance fields
CARO	Cyprus Atmospheric Remote Sensing Observatory
DAS	Earth Observation Satellite Data Acquisition Station
NTUA	National Technical University of Athens
EUSI	European Space Imaging
BIC	ESA Business Incubator
AZO	Anwendungs Zentrum Oberpfaffenhofen
SAR	Synthetic Aperture Radar
CaStoRC	Computation-based Science and Technology Research Center
CYI	The Cyprus Institute
EU	European Union
ERC	European Research Council
RIF	Cyprus Research Innovation and Foundation
NCP	National Contact Point
IPMA	Independent Project Management Authority
CARSE	Cyprus Association of Rural and Survey Engineers
IPB	Indian Bogor Agriculture University
INAT	National Agronomic Institute of Tunisia
CERTE	Water Research and Technology Centre
UTAP	Tunisian Union of Agriculture and Fisheries
DGRE	General Director of National Water Resources
CRTEAN	Regional Center for Remote Sensing of North Africa States
CRDA of Nabeul	Regional Agricultural Authorities of Nabeul governorate



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MoU	Memorandum of Understanding
UoG	University of Guelma
UN-SPIDER	United Nations United Nations Platform for Space-based Information for Disaster Management and Emergency Response
UNOOSA	United Nations Office for Outer Space Affairs
C3S	Copernicus Climate Change Service
OUC	Open University of Cyprus
<u>ASI</u>	Italian Space Agency
<u>ROMA</u>	Romanian Space Agency
INECoE	ERATOSTHENES Centre of Excellence Technology Transfer Office
UAB	University of Alabama
CCRSS	Concrete Corrosion Remote Sensing System



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1 Introduction

The report on the extroversion programme activities is included in the WP6 “Knowledge transfer and capacity building”, whose major objectives are: **(1)** to facilitate specific knowledge transfer activities between the Strategic Partners and the ERATOSTHENES Centre of Excellence (ERATOSTHENES CoE), **(2)** upscale the Centre’s research capacity and potential and **(3)** enrich the collaborations, globally and specifically in Eastern Mediterranean/ Middle East/ North Africa (EMMENA) region. The extroversion programme's design targeted strategically positioning the ERATOSTHENES CoE in addressing regional and European challenges based on an integrated strategy composed of three key elements:

- **Engagement activities with EMMENA stakeholders**, including think-tank, meetings and related activities.
- Active participation in **high-level international events**, such as workshops, seminars, and conferences, and staying at the forefront of developments on a pan-European scale.
- **Ad-hoc trainings and discussions conducted with industry professionals.**

This report will focus on the extroversion activities and their goals. The extroversion actions that have taken place include:

- Organisation of Lectures by Invited Speakers for staff to explore new perspectives.
- Organisation of an annual EXCELSIOR workshop with participation of national and international stakeholders to work towards the sustainability of ERATOSTHENES CoE;
- Organisation of targeted meetings with stakeholders of Cyprus and EMMENA region to stimulate collaboration, data exchange and understating of needs.
- Attendance in targeted workshops to foster cross-fertilisation of ideas.
- Attendance at international conferences to raise awareness of the activities of ERATOSTHENES CoE.
- Attendance at conferences to assist ERATOSTHENES CoE staff in shaping business strategy and keeping up to date with state-of-the-art services and developments in the European Research Area and relevant Innovation activities, such as Digital Innovation Hubs Workshops.
- Organise trainings with the Advanced Partners (NOA, DLR, and TROPOS) to exchange expertise and foster collaboration for new proposals.

This report emphasizes ERATOSTHENES CoE’s Extroversion programme activities in the EMMENA region, which will be modified at specific intervals to indicate any updates and the specific actions that need to be taken.

This deliverable follows the following structure:

- Chapter 2 outlines all the activities in the last 18 months.
- Chapter 3 concludes the report on the activities of the extroversion programme.



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2 Extroversion Activities

The extroversion activities that have taken place from October 2023 till March 2025 have been categorized as follows:



- Lectures by invited speakers;
- Workshops organized by ERATOSTHENES CoE;
- Conference and workshops attendance;
- Other activities, such as meetings with stakeholders of EMMENA region, trainings etc.

2.1 Lectures by Invited Speakers

The ERATOSTHENES CoE organized various lectures in the last eighteen (18) months (summarized in

Table 1), where invited speakers presented a range of topics relevant to Earth Observation and Remote Sensing. Researchers and EO/RS professionals in Cyprus, Europe, EMMENA region, Africa, Asia, and North America attended the lectures. The invited lectures, which focused on a wide range of earth observation applications, were attended by participants from various countries and organizations.

Table 1: Summary of invited talks organized

Date	Topic	Speaker	Related Photo
08/02/2024	Fuel mapping and fire spread	Prof. Ioannis Gitas	
13/02/2024	Coastal Zone Management in Cyprus	Mr. Stelios Zervos	N/A
12/03/2024	Agile Earth Observation Satellite Scheduling: Formulations, Methods, and Future Directions (https://www.youtube.com/watch?v=kM317wKY4Eo&t=530s)	Prof. Xinwei Wang	
08/04/2024	New market opportunities and challenges for remote sensing service	Prof. Steffen Kuntz	N/A



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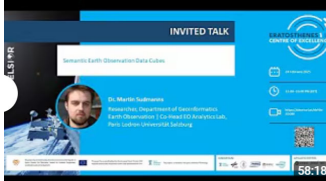



Date	Topic	Speaker	Related Photo
30/09/2024	Solar Resource Assessment and Forecasting Using Earth Observation and Data Sciences (https://www.youtube.com/watch?v=aEWNbMg01T8&ab_channel=Excelsior2020)	Professor Philippe BLANC	
30/10/2024	EU AI Act, intro business aspects of AI, combination of AI Act and product/business design	Dr. Dimitris Sykas	
30/10/2024	HR Strategy	Mrs. Vana Karayianni	
24/11/2024	Status of Water Resources in Tunisia and Joint Activities between INAT-ERATOSTHENES CoE	Assoc. Prof. Anis Chekirbane	N/A
27/01/2025	Opportunities of Earth Observation in the Official Statistics	Dr. Ali Nadir Arslan	
30/01/2025	Earth Observation Based Approaches for Archaeological Interpretation and Cultural Heritage Protection and Conservation (https://www.youtube.com/watch?v=a4nAsLpcqSU&t=1s)	Dr. Nicola Masini	
06/02/2025	Data-driven models for digital soil mapping and landslide susceptibility assessments and their integration with Earth observations (https://www.youtube.com/watch?v=AfJglpP000U)	Prof. Corrado Alberto Sigfrido Camera	



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Date	Topic	Speaker	Related Photo
24/02/2025	Semantic Earth observation data cubes	Dr. Martin Sudmanns	
27/02/2025	Climate Change Impacts: Projections of Heat-Related Mortality in the MENA Region and the Global Health Burden of Accelerating Effects of Non-Optimal Temperatures Compared to Air Pollution	Mr. Yiannis Proestos	
13/03/2025	Global Earth Observation-Based Agricultural Monitoring	Dr. Sven Gilliams	
13/03/2025	Satellite Earth Observation for protecting infrastructures from natural and anthropogenic hazards	Prof. Salvatore Stramondo	

2.2 EXCELSIOR Workshops

The ‘EXCELSIOR’ H2020 Teaming Project Consortium (PC) and the ERATOSTHENES CoE organize EXCELSIOR workshops on an annual manner, with the participation of all national, EMMENA, and international stakeholders. The workshop addresses the different activities of the ERATOSTHENES CoE, including infrastructure, research, education, and innovation through entrepreneurship.

The aim of the series of annual workshops is to interact with existing and new stakeholders, strengthen regional links, invest in continuous interaction with the strategic user segments of ERATOSTHENES CoE, and sustain long-lasting relationships and partnerships in the region.

2.2.1 Fifth Annual Hybrid EXCELSIOR workshop

On the **8th of April 2024**, the ‘EXCELSIOR’ H2020 Teaming Project Consortium and the ERATOSTHENES Centre of Excellence (ERATOSTHENES CoE) of the Cyprus University of Technology (CUT) organized the **“5th EXCELSIOR Annual Hybrid Workshop in Artificial Intelligence (AI) and Big Data: Trends and Challenges”**. This workshop was part of a series of annual workshops with the participation of national and international stakeholders of EXCELSIOR, addressing all the different activities of the ERATOSTHENES CoE, including infrastructure, research, education, and innovation through entrepreneurship.

The workshop's main aim was to harness the power of Big Data and AI alongside Earth Observation and Remote Sensing technologies. Distinguished academics and researchers from EXCELSIOR: Grant Agreement No 857510

[Public]



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different institutions/organizations shared their valuable expertise and knowledge in Big Data and AI in Earth Observation. These research topics align with the European Union's Space Programme, EU Space Strategy and Agenda. The scientific program hosted members from the EXCELSIOR consortium, stakeholders from Cyprus, the EMMENA region, and partner institutions. The workshop was disseminated through EXCELSIOR subscription list, various networks, and our social media pages, as shown in **Figure 1**.



Figure 1: Fifth Annual Hybrid EXCELSIOR Workshop Dissemination Flyer

The Fifth Hybrid International Workshop of EXCELSIOR exceeded expectations in terms of attendance, both from the audience and from the speakers' engagement. The expert speakers attracted a significant number of attendees, while the workshop's wide dissemination gathered participants from all around the globe. Most importantly, notably, attendees included those already familiar with the EXCELSIOR Project and new participants who discovered and learned about it for the first time.

2.2.2 Sixth Annual Hybrid EXCELSIOR workshop

On the **17th of March 2025**, the hybrid EXCELSIOR Annual Workshop titled "**Earth Observation Applications and Services in the EMMENA: Earth Observation Business Opportunities**", took place in Paphos, Cyprus during the RSCy 2025 international conference. This workshop was part of a series of annual workshops with the participation of national and international stakeholders of EXCELSIOR, addressing all the different activities oriented to business opportunities in Earth Observation, focused on the EMENA region. The dissemination flyer of the workshop is illustrated in **Figure 2**. As keynote speakers, people from different backgrounds and expertise were invited, highlighting the business-oriented strategies coming from earth observation applications.



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Figure 2: Sixth EXCELSIOR Annual Hybrid Workshop Dissemination Flyer

This year’s focus was to foster collaboration among scientists, industry leaders, policymakers and entrepreneurs, bridging the gap between EO research and its commercialization through applications/ services. As stated during the workshop, the integration of the state-of-the-art EO methodologies/applications and dedicated business strategies can lead to valuable commercial investments, driven by innovation, economic growth and decision-making across multiple sectors. The presentations at the workshop included various topics, as described in **Table 2**. Following the presentations, a fruitful open discussion between the audience, including Dr. Peter Zeil, Dr. Younes Abouyoub and Daniel Barok was carried out. Among the workshop’s highlights was the statement, “In the last years EO market has a rapid growth; it is the moment to fully exploit business opportunities from Earth Observation concerting scientific advancements into operational services benefiting society, economy and environment”. Finally, the workshop was a great opportunity for networking, exchanging knowledge and exploring potential collaborations among the participants, shaping the future of EO in the EMMENA region. Photos from the workshop can be found in **Table 3**.

Table 2: List of keynote speakers and their presentations demonstrated in the Sixth Annual EXCELSIOR Workshop

Key Note Speaker	Organization/Authority	Presentation Title
Mr. Gunter Schreier	Consultant to ERATOSTHENES CoE, DLR-ret	Introduction and Overview
Mrs. Chariclia Italou	Department of Electronic Communications (DEC)	Cyprus Space Policy
Prof. Andreas Anayiotos	ERATOSTHENES CoE & CUT	The Eratosthenes Centre of Excellence Strategy and Roadmap for EO Technology applications in Cyprus and the EMMENA Region



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Mrs. Chara Christodoulou	Agricultural Science Section Phasourri Plantations	The use of PreciRRi technology for optimum Irrigation practices at the Phasourri Plantation
Dr. Marinos Eliades	ERATOSTHENES CoE	
Dr. George Papadavid	Agricultural Research Institute, Ministry of Agriculture, Cyprus	iEO and Geoinformatic technology applications improve decision making in irrigation water management in Cyprus
Mrs. Alexia Tsouni	National Observatory of Athens (NOA)	GEO-CRADLE capacity building and support of feasibility studies for demonstrating the value of EO, leveraging the GEO and EuroGEO innovation
Dr. Constantinos Panayiotou	ERATOSTHENES CoE	
Mr. Nicos Christoforou	ERATOSTHENES CoE & Cyta	Establishing a 9m S/X/Ka Band Antenna in Cyprus: A Strategic Leap in Earth Observation
Dr. Nicos Spyropoulos	EarthDaily	The EarthDaily Constellation- A Global Daily Scientific Monitoring Mission for the Environment
Mr. Zdravko Dimitrov	Sfera Technologies Ltd	Virtual Satellite Constellations & Real-Time Regions: An Earth Observation architecture for a new world

Table 3: Moments of the Sixth Hybrid Annual EXCELSIOR Workshop on the 17th of March, 2025.



2.2.3 Annual Workshop/ Meeting of Mediterranean Regional Information Network (MedRIN) – NASA - Excelsior

On the 17th of March 2025 a workshop entitled “Annual Workshop/ Meeting of Mediterranean Regional Information Network (MedRIN) – NASA - Excelsior” was held in Paphos, Cyprus, during the RSCy 2025 international conference. The aim of the specific workshop is multifold. Specifically, since the Mediterranean region experiences increasingly environmental challenges affecting the society and economy of the area, the collaborative EO initiatives driven by great organizations such as NASA, are



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essential to ensure sustainability, disaster response and climate adaption strategies. The importance of this workshop/meeting lies on the unique opportunity to exchange knowledge between NASA, ERATOSTHENES CoE (EXCELSIOR), MedRIN and regional/international stakeholders. Through a synergy of knowledge and technological innovation, MedRIN, NASA, and ERATOSTHENES CoE will increasingly bridge the policy-science-operation gap, enabling EO-generated knowledge to be meaningfully translated into actionable solutions, resulting to environmental sustainability and disaster resilience.

The workshop included six (6) presentations in total and an open discussion between the presenters and the audience. Different thematic areas such as **satellite infrastructure, ecosystem monitoring, agriculture applications, cultural heritage and climate change** impacts were presented and discussed among participants. During the workshop the **9 meters antenna, supporting S/X/KA bands that will be installed in Cyprus through EXCELSIOR project was presented, serving as a strategic leap in EO, especially in EMENA region.** Table 4 presents some moments of the workshop. During the discussion, it was emphasized that to ensure more effective environmental management across the region, the need to strengthen data and knowledge sharing, along with using satellite-based monitoring systems and analytical tools for regional applications is needed. As a conclusion of the workshop the close collaboration between ERATOSTHENES CoE, NASA and MedRIN can be determined as a starting point to strengthen regional and global partnerships among policymakers, researchers and first responders, enhancing informed decision-making and operational readiness.

Table 4: Moments of the Annual Workshop/ Meeting of the MedRIN- NASA - EXCELSIOR on the 17th of March 2025.





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2.2.4 CAMS User Workshop Cyprus and Malta

On the **18th of March 2025**, the Copernicus Atmosphere Monitoring Service (CAMS) User Workshop Cyprus and Malta was held, in hybrid mode, during the RSCy 2025 International Conference in Paphos, Cyprus, between 09:00 and 13:00 Cyprus time. The agenda of the workshop (**Figure 3**) was uploaded at the official website of the conference (<https://rscy2025.com/>). The objective of the workshop was to enhance awareness and engagement capabilities, applications, and benefits for national and regional stakeholders related to the CAMS, as well as the positioning of ERATOSTHENES CoE and EXCELSIOR contributions in this endeavor. It must be noted that during the event a brief introduction of the CEOPS ESA Pecs project was presented, followed by discussions on how atmospheric data support multiple sectors. The workshop **focused on the Cyprus and Malta** countries, emphasizing to strengthen existing and future collaborations between policymakers, researchers and operational users of both countries. Apart from that, as CAMS products contribute to environmental monitoring and climate resilience, decision-making processes can also be developed and applied in both countries.



Figure 3: Agenda of the CAMS User Workshop Cyprus Malta

Overall, the presentations covered a wide range of topics, including a brief **introduction to CAMS and the National Collaboration Program (NCP)**. In the overview of CAMS users, stakeholders and experts from both countries had the opportunity to share insights into the use of **CAMS air-quality products, greenhouse gas emissions monitoring and applications, digital twin applications, ultraviolet index forecasting and dust forecasting for public and aviation meteorology**. Practical examples were presented, indicating how CAMS data can be used to improve environmental assessments and early warning systems in case of intensive phenomena, such as dust storms, high UV



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index, etc. Among others, the infrastructure of ERATOSTHENES CoE was demonstrated, positioning Cyprus as one of the important sites for the calibration of the CAMS products.

After the completion of the presentations, an interactive and engaging discussion was held among participants. Key needs and priorities along with identified gaps and future collaborations between two countries were discussed, along with challenges and future applications/services. The workshop concluded with a focus group session on atmosphere and climate change, fostering synergies with CEOPS initiatives, encouraging further collaboration between national and European institutes and authorities, supporting long-term sustainability and resilience in EMENA region. Moments of the workshop are illustrated in **Table 5**.

Table 5: Moments of the CAMS Workshop on the 18th of March 2025.



2.2.5 Hybrid Workshop on Flood Risk Management

On the **18th of March 2025**, the hybrid Workshop, "Building synergies among researchers, decision makers and first responders: From flood risk assessment to operational flood risk reduction services, " took place in Paphos, Cyprus during the RSCy 2025 international conference. This workshop was part of a series of workshops with the participation of national and international stakeholders of EXCELSIOR related to the flood risk management in the EMENA region, addressing all the different activities of the ERATOSTHENES CoE and key stakeholders/ authorities/ organizations. The list of the key-note speakers is depicted in **Table 6**, the flyer disseminated to the public is shown in **Figure 4** and photos from the workshop are illustrated in **Figure 5**.



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Table 6: List of key-note speakers and their expertise in the Annual Hybrid Workshop RSCy 2025, for Flood Risk Management, in Paphos, Cyprus

Name	Title/Organization
Dr. Constantinos Panagiotou	Co-chair, ERATOSTHENES Center of Excellence
Alexia Tsouni	Co-Chair, BEYOND-NOA
Professor Diofantos Hadjimitsis	Managing Director of ERATOSTHENES Center of Excellence
Josefina Kountouri	Researcher, ERATOSTHENES Center of Excellence
Eleftherios Kosmopoulos	Vice-Governor of the Attica Region
Andreas Theodorou	Mayor of Polemidion, Cyprus
Ioannis Koulaxenos	Elite Special Missions Team of Vilia Community
Marios Stavrou	Head of Operations, SupportCY Volunteers Corps
Kostas Aristeidou	Coordinator of the Division of Hydrology & Hydrogeology, Water Development Department
Dr. Panayiotis Sofronides	Hydrologist, Limassol Water Development Department



Figure 4: Hybrid Workshop RSCy2025 for Flood Risk Management Dissemination Flyer

The workshop audience includes people from multiple authorities and organizations. Fruitful discussion sessions followed each of the presentations. Specifically, during the workshop the importance of synergistic efforts for flood risk management was highlighted, since, through the synergy of researchers, decision-makers, and first responders, the gap between scientific advancements and application can be eliminated, making flood risk response more efficient and anticipatory. This close collaboration begins with integrated **flood hazard assessment, utilizing advanced remote sensing, hydrologic modeling, and geospatial analysis**. The primary task of **scientists** is to put forward innovative solutions within assessing precipitation variability, land cover modifications, and terrain vulnerability in order to act as a foundation for scientific judgment in



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decision-making. The scientific data is then provided to **policymakers and decision-makers** in simple and understandable ways, giving them the opportunity to develop effective strategies that will be applied in urban planning, infrastructure resilience measures, and early warning systems in case of an emergency. The integrated flood risk assessment components can be translated into legislation and emergency response plans (such as evacuation plans), mitigating potential damage in infrastructure and broader landscape and saving human lives and communities. **First responders** (e.g., Civil Defense and volunteers, etc.), as they stand in the first line of disaster management, require real-time actionable information to act effectively in flood responses and recovery measurements.

Multiple methodologies were discussed based primarily on geospatial technologies, AI-driven predictive models, remote sensing and early warning systems. The integration of the aforementioned technologies enhances situational awareness, allowing early and coordinated responses, and reducing possible issues. Continuous communication channels between scientists and first responders can be developed, effectively delivering vital information at the most critical times. Additionally, the establishment of community-based resilience initiatives are also proposed, especially in high-risk areas, deploying sensor networks for real-time monitoring, and enhancing public awareness through participatory decision-making.



Figure 5: Photos from the Flood Risk Management Workshop, on the 18th of March 2025 in Paphos, Cyprus

2.3 Participation in conferences and workshops

The participation of ERATOSTHENES CoE staff in various conferences and workshops throughout the EMMENA region enhanced the dissemination of the EXCELSIOR project in the EMMENA region, deepened the staff’s expertise in cutting-edge technologies and methodologies, also contributed to a vibrant exchange of ideas and fostering collaboration in various projects. The following activities



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showcase key experiences, insights and outcomes that have strengthened the professional network and enriched the regional dialogue on innovation and excellence.

2.3.1 October 2023

27-28/09/2023: Participation in the 2nd European Teaming Club Conference

Dr Silas Michaelides and Ms Eleni Loulli participated in the 2nd European Teaming Club Conference held in Isola, Slovenia, on 27 and 28 September 2023 (**Figure 6**). The InnoRenew Centre of Excellence hosted the event, and its theme was “Building a Sustainable Research Network”. This informal European Teaming Club brings together all the successful Teaming projects from the Teaming call of the Horizon 2020 and Horizon Europe programmes. At that year’s meeting, the 3rd generation of projects was already received. In total, the representatives from forty-five ongoing projects came together at this Conference to share their experiences and develop a Teaming network.

Several panels that were organized during the Conference were dedicated to discussions with advanced partners, who shared their experiences in implementing the project goals with their widening counterparts. Presentations of EU representatives on the sustainability of teaming projects and their role in the European research landscape were also made. In parallel sessions divided according to the project focus, participants examined the teaming synergies and opportunities for collaboration.

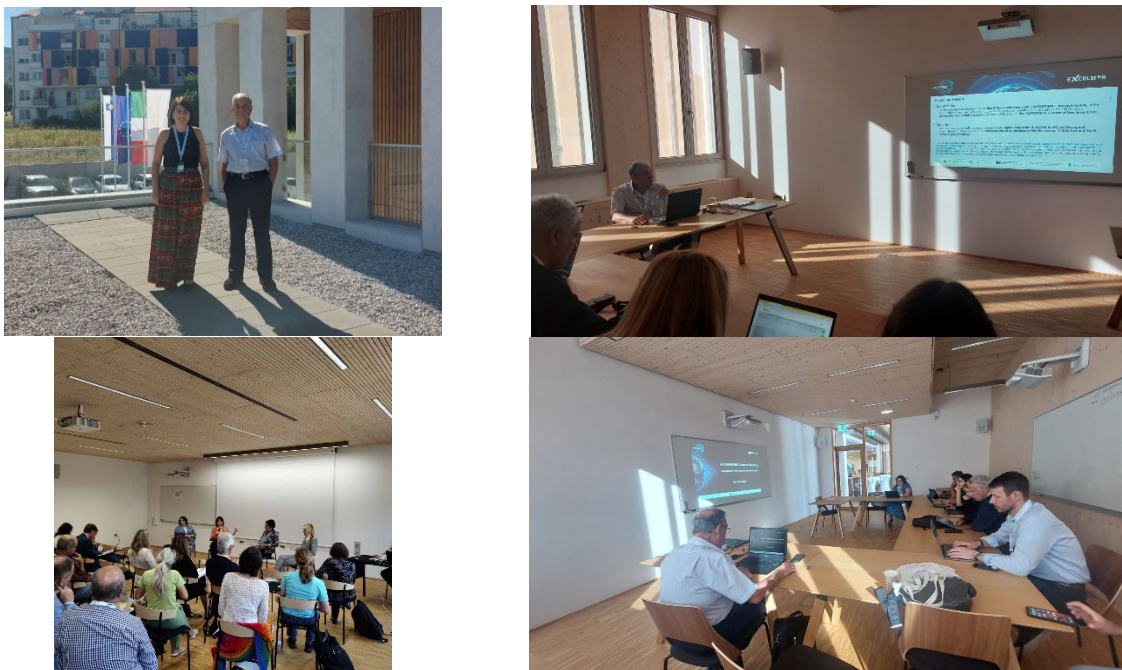


Figure 6: Participation in the 2nd European Teaming Club Conference, 28-29/10/2023



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2.3.2 January 2024

24/01/2024: Participation in the 16th European Space Conference

Team members Dr. Kyriacos Themistocleous and Mr. Nikos Christoforou participated in the event "Exploring the Future of space business with Europe's leaders" at the 16th European Space Conference in Brussels, which took place at the Square Brussels Convention Center in Brussels, Belgium. The conference included 1500 participants from the European space sector and European institutions. This annual event serves as a platform for thought-provoking discussions, debates, and collaboration on the future of European space initiatives. Some of the keynote panel discussions included Satellites and EO in support of SDGs and the Green Deal; Earth Observation in support of Public Protection and Disaster Relief; Global Partnerships for and through Space and IRIS2 Discussions. Activities of the ERATOSTHENES CoE, along with the developed applications were presented and discussed (**Figure 7**).



Figure 7: Participation of ERATOSTHENES CoE at the 16th European Space Conference in Brussels, 24/01/2024.

2.3.3 February 2024

22/2/2024: Info day "Training pupils on geosciences through Virtual Field Trips" (TRiPGiFT)

The ERATOSTHENES CoE was invited to participate as speakers during info day. The purpose of the event was to present the Centre's project, some of its deliverables, and good practices in Geoscience education, with special emphasis on educational tools such as virtual and augmented reality. Ms. Eleni Loulli gave a short introduction regarding ERATOSTHENES's activities and an overview of our educational activities with emphasis on EXCELSIOR and Space EDUnity activities.

2.3.4 March 2024

21/03/2024: Participation of Prof. Diofantos Hadjimitsis in the 1st Greek Space Tech Forum 2024

The 1st Greek Space Tech Forum 2024 was held in Athens on 21 March 2024, featuring a parallel webcast. The event was co-organized by the Hellenic Space Technology & Applications Industry Association (EVIDITE) and the Hellenic Cooperative Formation of Space Technologies and Applications



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(si-Cluster) of Corallia. The aim of the Greek Space Tech Forum 2024 was to highlight aspects of the Space market, specifically Space 4.0, or the emerging "New Space," which includes the Greek Space ecosystem. Prof. Diofantos Hadjimitsis participated in the discussion "Use of Advanced Space-Based Solutions for Environmental & Climate Change Monitoring and Applications," which included Yannis Gekas, PhD, Data & AI Managing Director and Space Analytics Lead at Accenture, Emmanuel Pajot, PhD, Secretary-General of the European Association of Remote Sensing Companies (EARSC), and Konstantinos Stavrinidis, IABG Technical Director and HyImpulse Head of Management Board and was moderated by journalist Kostas Ketsietzis (**Figure 8**).



Figure 8: Participation of Prof. Diofantos Hadjimitsis in the 1st Greek Space Tech Forum 2024

2.3.5 April 2024

Tenth International Conference on Remote Sensing and Geoinformation of Environment (RSCy) 2024 (<https://rscy2024.cyprusremotesensing.com/>)

On the 8th of April 2024 due to 10th of April 2024, the RSCy 2024 international conference was successfully held in Aliathon Holiday Village in Paphos, Cyprus. The conference was co-organized by the Eratosthenes CoE, EXCELSIOR project and the Cyprus Remote Sensing Society. The Department of Electronic Communications of the Deputy Ministry of Research, Innovation and Digital Policy of Cyprus and the European Space Agency (ESA) supported the conference. World leading organizations such as ESA, NASA and German Aerospace Centre (DLR) were actively participated in this conference. National and regional stakeholders, scientists, industry professionals and students reaching more than 200 people were the participants of the conference.

On behalf of the President of the Republic of Cyprus Mr. Nicos Christodoulides, Mr. Nicodimos Damianou, the Deputy Minister of the Ministry of Research, Innovation and Digital Policy delivered a keynote address on the first day of the conference. Mr. Damianou congratulated the conference organizers, emphasizing the importance of hosting high-quality international conferences in Cyprus and attracting people from Cyprus and abroad. The latest developments, challenges, and opportunities may arise on the Remote Sensing and GIS technologies position Cyprus as an innovation and digital



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hub for improving the resilience and sustainability at a national and regional level. He also emphasized the significance of geospatial information, which has given the ability to monitor, analyze, and oversee the Earth's ecosystems and resources more efficiently in the last ten years. Satellite imagery, aerial photography, Geographic Information Systems (GIS), and sophisticated analytical methods enable the viewing and comprehension of complex interactions that characterize the world.

Delegates representatives from 30 nations had the opportunity to engage with keynote speakers, transferring knowledge, exchanging ideas and learning about the latest advancements in 22 theme areas (**Figure 9**). They include satellite data applications, remote sensing, space technologies, Earth observation, geoinformatics, and AI. The subject matter covered a variety of fields, such as **agriculture, atmospheric science, cultural heritage protection, blue economy, maritime security, natural disasters (floods, wildfires, earthquakes, landslides), meteorology, environment, hydrology, water resources, land use, big data, and others.**



Figure 9: Photo from the RSCy 2024 International Conference held in Paphos, Cyprus, 08-10/04/2024.

2.3.6 June 2024

17-21 June, 2024: International Radiation Symposium (IRS)

The International Radiation Symposium (IRS) took place from 17-21 June 2024 in Hangzhou, China. The event was organized by the School of Earth Sciences at Zhejiang University (ZJU), under the supervision of the International Radiation Commission (IRC) of the International Association of Meteorology and Atmospheric Sciences (IAMAS). IRS 2024 provided a comprehensive international platform for presenting and discussing recent research achievements and technological developments in the field of atmospheric radiation. Kyriaki Papachristopoulou (NOA) had a unique opportunity to



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engage in discussions on cutting-edge scientific issues, openly exchange new ideas, and establish collaborations (**Figure 10**).



Figure 10: Participation in International Radiation Symposium (IRS) 2024, June 2024.

2.3.7 July 2024

07 – 12 /07/2024 International Geoscience and Remote Sensing Symposium - IGARSS 2024

(<https://www.2024.ieeeigarss.org/>)

For the first time in history the **44th annual International Geoscience and Remote Sensing Symposium IGARSS** was hosted in Greece and took place on the 7th until 12th of July 2024, at the Megaron Athens International Conference Center. The conference, which was organized by the **IEEE Geoscience and Remote Sensing Society (GRSS)**, attracted more than 2500 researchers, professionals, and stakeholders from around the globe to share the recent scientific advancements and technological developments in remote sensing, geospatial science, and satellite technology. During the conference groundbreaking sessions on Earth observation, cutting-edge remote sensing technologies, or engaging hands-on tutorials presented. The highlight of the participation in IGARSS was the chairing of the following session **FR4.R15: Trends in Environmental Monitoring and Disaster Risk Reduction in the Eastern Mediterranean, Middle East and North Africa** by Dr. Silas Michaelidis and Dr. Kyriacos Themistocleous.

ERATOSTHENES CoE and EXCELSIOR had a strong presence and participation at IGARSS 2024 with **more than 20 presentations and posters**, showcasing cutting-edge research on a wide range of topics — **from environmental monitoring and climate resilience to space-based technologies and artificial intelligence in Earth observation**. The Centre's delegation had fruitful meetings, collaboration, and networking activities, strengthening ties with key stakeholders, research institutions, and industry partners (i.e., Geosystem Hellas, Planetek Hellas, etc.) researchers and PhD students had the opportunity to exchange knowledge and ideas with participants all over the world.



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Presenter	Title	Type of Presentation	Photo
Dragos Ene	Aerosol and Cloud Remote Sensing Observation in Limassol, Cyprus	Oral	N/A
Eleni Neofytou	A Review of Soil Organic Carbon (SOC) Prediction Techniques in Agricultural Lands Using Remote Sensing	Oral	N/A
Maria Poutli	Variability of smoke optical properties in Eastern Mediterranean	Poster	
Josefina Kountouri	Flood Hazards assessment and vulnerability analysis in Garyllis river basin, Cyprus	Poster	
Maria Poutli	Aerosol Cloud Remote Sensing Observation in Limassol Cyprus	Poster	
Dr. Chris Danezis	Enhancing Gephazard Resilience in Cyprus: The CyCLOPS+ Integrated GNSS and InSAR Strategic Monitoring Infrastructure	Oral	
Kyriaki Fotiou	Investigating The Absolute Velocity Estimation of An	Poster	N/A



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	Active And Fast-Moving Landslide Using Integrated Satellite-Based Techniques: The Case Study Of Pissouri Village In Cyprus		
Maria Prodromou	Multimodal dataset for wildfire risk prediction in Cyprus	Poster	
George Leventis	Spatial Dynamics of Urbanization: Analyzing the impact on Amathus Archeological Landscape	Poster	
Dr. Dante Abante	The application of Neural Radiance fields (NERF) in generating Digital Surface Models from UAV Imagery	Poster	
Dr. Kyriacos Themistocleous and Prof. Andreas Anagiotos	The contribution of remote sensing in identifying Cultural Heritage Remains	Poster	
Eleftheria Kalogirou	Empirical Analysis of Oil Spill Detection Methods	Poster	



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<p>Christos Theocharidis</p>	<p>What do long-term satellite data reveal about forest dynamics in the Paphos forest?</p>	<p>Poster</p>	
<p>Georgia Charalampous</p>	<p>Cyprus Erythermal radiation forecasting system (CERYFOS)</p>	<p>Poster</p>	
<p>Prof. Diofantos Hadjimitsis</p>	<p>Emerging Prospects in Earth Observation for Cyprus & EMMENA Region Through The Eratosthenes Centre Of Excellence & Excelsior H2020 Teaming Project</p>	<p>Oral</p>	
<p>Marios Tzouvaras</p>	<p>Enhancing Earth Observation Capabilities of The Eratosthenes Centre of Excellence On Disaster Risk Reduction Through Artificial Intelligence: Introducing The Ai-Observer Project</p>	<p>Oral</p>	



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<p>Stelios Neophytides</p>	<p>An Earth Observation Data Ecosystem to Enhance Environmental Monitoring and Society’s Resilience In Cyprus And The Emmena Region</p>	<p>Oral</p>	
<p>Stelios Neophytides</p>	<p>Prediction of Groundwater Salinization Using Particle Swarm Optimization for Neural Network Training</p>	<p>Oral</p>	
<p>Kyriacos Themistocleous</p>	<p>Review On Quintuple Helix Innovation Model and Introducing Co-Eco-Approach in Support of Climate Change Mitigation And Adaptation Within The Framework Of The New European Bauhaus Initiative</p>	<p>Oral</p>	
<p>Eleni Loulli</p>	<p>Calibration of Reflectivity Observations from The Weather Radar Network of Cyprus Against Gpm Dual-Frequency Precipitation Radar</p>	<p>Oral</p>	
<p>Demetris Christofi</p>	<p>An Insight Review of Coastal Erosion and Shoreline Detection in The Mediterranean</p>	<p>Poster</p>	<p>N/A</p>



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Dr. Stavroula Alatza	PSI-Based Time Series Analysis Exploiting Copernicus Sar Images for Monitoring Kouris Dam in Cyprus	Oral	N/A
Dr. Vincent Ambrosia	The MedRIN: An EO Partnership for Land Cover / Land Use Change Science	Oral	N/A

This active participation was essential to the global exposure and outward orientation of ERATOSTHENES CoE, making it a leading Earth observation research and innovation hub in the EMENA region. Such strategic engagement can place Cyprus at the forefront of regional EO initiatives, while stimulating the prospects of collaborative ventures, knowledge transfer, and cross-border collaboration. Photos from the conference can be found in **Figure 11**.

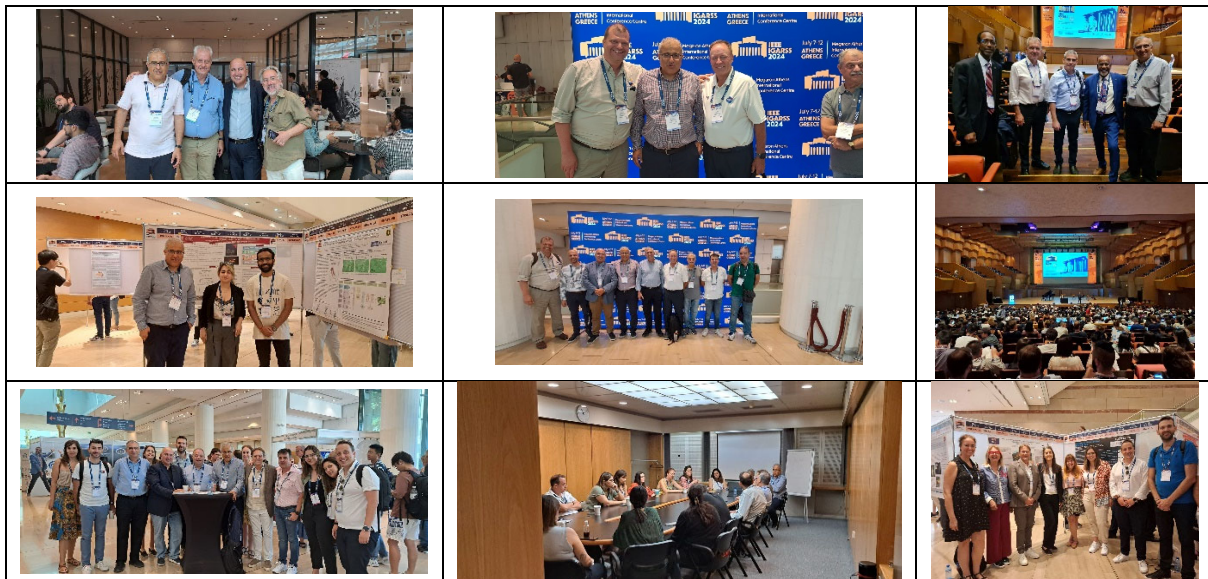


Figure 11: Moments from the IGARSS 2024, 7-12 July 2024

16-19/7/2024: NASA SCERIN-MedRIN Joint Workshop 2024

Prof. Diofantos Hadjimitsis, Dr. Andreas Christofe and Mr. Vincent Ambrosia attended the NASA SCERIN-MedRIN joint workshop 2024 in Chania. The MEDRIN and SCERIN networks MEDRIN and SCERIN networks, which collectively include over 200 remote sensing scientists and professionals as members, provide a valuable platform for understanding the key research and innovation priorities across the EMMENA, European, and Mediterranean regions and informing the development of the future strategic plans. SCERIN focuses on various applications across Europe, such as: forest



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monitoring, land use and land cover changes, water management. MEDRIN connects Earth Observation scientists and professionals in the EMMENA region with research on urban and rural areas, multi-hazards, soil and water resources, climate change, and education. During the workshop Dr. Andreas Christofe presented a brief oral presentation and a poster entitled "EXCELSIOR: Earth Observation in the EMMENA region" and had the opportunity to discuss the EXCELSIOR project and the actions of the ERATOSTHENES CoE (**Figure 12**).



Figure 12: Participation in NASA SCERIN-MedRIN joint workshop 2024 in Crete, Chania

2.3.8 October 2024

07/10/2024: Cyprus Space Info Day 2024, Nicosia, Cyprus

The Department of Electronic Communications of the Deputy Ministry of Research, Innovation and Digital Policy, in collaboration with the European Space Agency (ESA), organized the workshop "Cyprus Space Info Day 2024" on Monday October 7th, 2024, at CLEOPATRA Hotel, Nicosia (**Figure 13**). The event aimed at informing national stakeholders about the new advances on Cyprus–ESA relations and exchanging good practices and experience of the successful Cypriot organizations participating in the ESA PECS program. Furthermore, a short training session on "Developing a Business Case" was provided by ESA. Representatives from ERATOSTHENES CoE participated in this event, having the opportunity to show the EXCELSIOR project activities and applications that will be commercialized in the future. Fruitful discussions with ESA members were carried out, along with strategic preparations on submitting ESA PECS proposal, involving partners from the EMMENA region.



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Figure 13: Participation at Cyprus Space Info Day 2024, Nicosia, Cyprus

08/10/2024 - 10/10/2024 - EuroGEO Workshop 2024: The EuroGEO Workshop 2024 held in Krakow, Poland included 241 delegates, of whom were new to EuroGEO or GEO, which brought a new perspective on the overall initiative. On the last day of the workshop, a side event took place on the GEO Cradle GEO Initiative, led by NOA. The GEO Initiative GEO-CRADLE continues as a multi-regional coordination network, which brings together key players representing the entire Earth Observation (EO) value chain from the Balkans, North Africa, Middle East and the Black Sea. During the side event, attendees discussed regional issues, exchanged ideas, and identified next steps and needs for the future. The agenda of the EuroGEO Workshop 2024 is illustrated in **Figure 14**.

The ERATOSTHENES CoE was represented by Dr Christiana Papoutsas and Assoc. Professor Menelaos Stavrinos. Both had the opportunity to introduce the activities of the Centre to the workshop participants throughout the session discussions, breaks, Social Events, and Cocktail reception. During the event two posters were presented linked to the CERBERUS Project entitled "The Cerberus project: Multiplatform field surveillance for integral crop health, early detection and actuation" & the EXCELSIOR Project entitled "Core infrastructure of ERATOSTHENES Centre of Excellence: The Cyprus Atmospheric Remote Sensing Observatory (CARO) and the Earth Observation Satellite Data Acquisition Station (DAS)." The event was an excellent networking opportunity, with two prominent researchers invited to give talks at the ERATOSTHENES CoE Invited Lectures Series: Dr. Ali Nadir Arslan, Arctic Space Centre, Finnish Meteorological Institute, Finland on "Opportunities of Earth Observation in the Official Statistics" and a second talk on "Exploring pathways for transforming research initiatives into operational services that drive innovation and business opportunities" (January 27, 2025). As a result, Dr Sven Gilliams, GEOCLAM Director, was invited to give a lecture on "GEOGLAM; Global Earth Observation Based Agricultural Monitoring" (March 6, 2025).



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TIME	TOPIC
11:00 – 11:20	GEO-CRADLE legacy and follow-up, Haris Kontoes , NOA/BEYOND
11:20 – 11:25	GEO-CRADLE Networking Platform and Regional DataHub, Alexia Tsouni , NOA/BEYOND
11:25 – 11:30	Funding opportunities in the region, Mariza Kaskara , NOA/BEYOND
11:30 – 12:00	Panel discussion on the promotion of the uptake of EO services and data in response to regional needs and policies with: <ul style="list-style-type: none"> ▶ Lorant Czarán, UN-SPIDER ▶ Diofantos Hadjimitsis, FRATOSTHFNES Centre of Excellence, Cyprus ▶ Natalia Kussul, National Technical University of Ukraine ▶ Zouhaier Ben Rabah, University of Manouba, Tunisia ▶ Kaan Kalkan, TUBITAK Space Technologies Research Institute, Turkey ▶ Omar El Badawy, CEDARE, Egypt
12:00 – 12:30	Open discussion and wrap-up by Haris Kontoes , NOA/BEYOND

Figure 14: EuroGEO Workshop 2024 agenda of the GEO-Cradle Initiative

9-11/10/2024: Participation in the 3rd European Teaming Club Conference

The 3rd Teaming Club Conference, that was held from 9 to 11 October 2024, in Novi Sad, Serbia, brought together forty Centers of Excellence established within the Horizon2020 and Horizon Europe Teaming calls from across Europe. The event was hosted by the BioSense Institute Centre of Excellence in Novi Sad, Serbia. “Fostering EU Collaborations for Sustainability” was in the spotlight of this event was. Lectures and discussions among the participants were focused on strengthening synergies in key research areas such as materials science, biotechnology, remote sensing, digital innovation, and health. With sessions on research infrastructure development and sustainability, the Conference aimed to enhance collaboration among Teaming Centres to address Europe’s most pressing innovation challenges.

In addition to the networking sessions, panel discussions were organized about spreading and sustaining excellence, research infrastructure, and harmonization with financial regulations. Additionally, the participants had the opportunity to attend a lecture by Professor Vladimir Bulović, Director of MITnano Center at the MIT (USA) about managing a center that is focused in fostering collaboration between researchers from different disciplines and in enabling synergies that could benefit the transformation of research findings into practical solutions and to accelerate innovation for the benefit of society and economy.

2.3.9 November 2024

21 – 22 November 2023: UN-SPIDER / ASAL / ZFL Workshop “Space-based Solutions for Forest Fires in Algeria”

The two-day workshop, attended by Stella Girtsou of NOA brought together nearly 30 professionals from various institutions to address the use of Earth observation technologies in forest fire management. The workshop features presentations that showcased different types of space technologies that can be used to monitor fires and assess their geographical extent and burn severity; the discussion sessions allowed participants to identify critical issues that need to be considered when using such space-based technologies.



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The workshop achieved its aims in terms of presenting space-based tools that can contribute to address the challenges posed by forest fires. It facilitated the identification of follow-up efforts, including synergies with ASAL, IGAC and the National Civil Protection Office of Tunisia regarding the use of tools developed in Algeria and Tunisia (**Figure 15**).

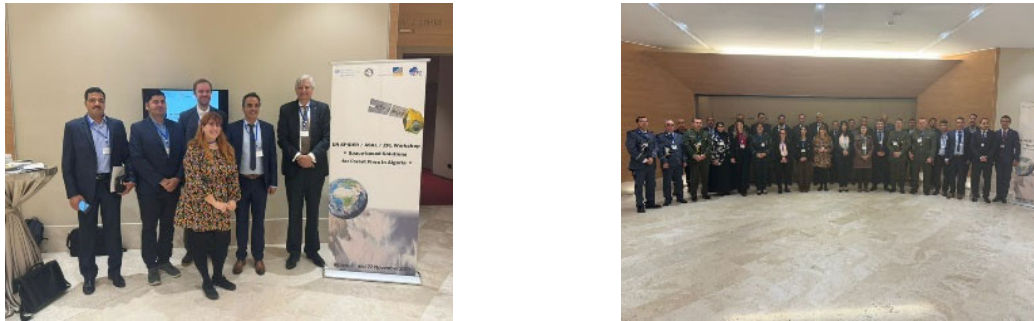


Figure 15: UN-SPIDER / ASAL / ZFL Workshop “Space-based Solutions for Forest Fires in Algeria”, 21 and 22/11/2024

1-3/12/2024: 6th World Landslide Forum, Florence, Italy

Dr. Marios Tzouvaras presented at the 6th World Landslide Forum titled: ***Towards a systematic update of the Cyprus landslide inventory using Copernicus satellite data***. This study was carried by the Disaster Risk Reduction sector of the ERATOSTHENES CoE, NOA and the National Technical University of Athens (NTUA). During the conference, Dr. Tzouvaras had the opportunity to discuss future collaborations on the disaster management section, highlighting that Cyprus, as a member of the EMMENA region, plays a crucial role due to its geodynamic position and the continuous, state-of-the-art monitoring techniques of landslides (**Figure 16**).

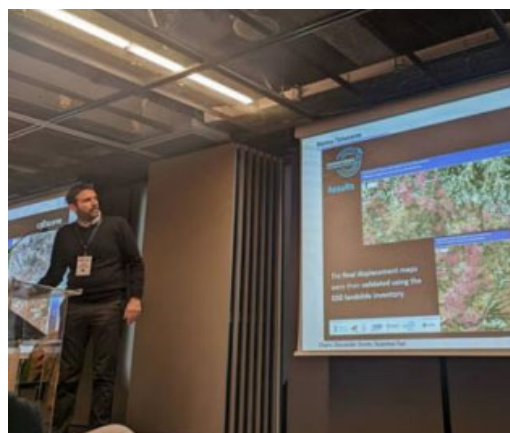


Figure 16: Participation at 6th World Landslide Forum, Florence, Italy, 1-3/12/2024

2.3.10 December 2024

2-4/12/2024: European Space Imaging Conference, Munich

European Space Imaging (EUSI), distributor of MAXAR data conducted its company conference in Munich, Germany. This invitation-only event brought together like-minded experts from all sectors



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where geospatial technologies and remote sensing are applied. Mr. Gunter Schreier, consultant to the ERATOSTHENES CoE, moderated an expert panel, titled: Earth Observation Data for the Security and Crisis Response of Europe and Neighbours, invited speakers have been: EDA - Eleni Patouni, GAF - Sebastian Carl, IAEA - Marc Lafitte, NATO COE CSW - Patrick O’Keeffe, SATCEN - Radu Tanase: The panel discussed the new security challenges and what EO can contribute. One focus was also the situation and EO opportunities in the Eastern Med area. Mr. Schreier discussed with EUSI how to establish a MAXAR Legion downlink station in Cyprus.

2.3.11 January 2025

28-19/01/2025: European Space Conference, Brussels

The 17th European Space Conference took place on 28th and 29th January 2025 at the Square Convention Centre in Brussels, Belgium and was attended by Mr. Gunter Schreier, consultant to the ERATOSTHENES CoE (**Figure 17**). The 2025 European Space Conference explored the current status of Europe’s space endeavours through a series of high-level dialogues and served as a platform for in-depth, engaging, and forward-thinking discussions about the future direction of European space initiatives. The two-day conference included over 1500 participants and featured over 100 high-level speakers.



Figure 17: Participation in the European Space Conference, Brussels

2.3.12 February 2025

13/02/2025: 20 Years ESA BIC Celebration

The first ESA Business Incubator (BIC) outside of ESA premises was opened 20 years ago near Munich at the AZO (Anwendungszentrum Oberpfaffenhofen). This anniversary “20 Years ESA BIC Celebration” was hosted in the Munich Residence with high-level speakers (ESA DG, Bavarian minister-president, start-up and venture capital companies). Approximately 300 guests attended the celebration in Munich, gathered entrepreneurs, space industry professionals, investors, and policy makers for insightful discussions and networking. The ceremony was officially opened by Josef



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Aschbacher, Director General of the European Space Agency - ESA and Markus Blume, Bavarian State Minister for Science and Art. Mr. Gunter Schreier, consultant to the ERATOSTHENES CoE, had the opportunity to deepen the connection to AZO and ESA BIC responsible ESA staff to foster the creation of an ESA BIC envisioned in Cyprus (**Figure 18**).



Figure 18: Participation in the 20 Years ESA BIC Celebration

2.3.13 January - March 2025

Eleventh International Conference on Remote Sensing and Geoinformation of Environment (RSCy) 2025 (<https://rscy2025.com/>)

The 11th International Conference on Remote Sensing and Geoinformatics for the Environment (RSCy 2025) took place in Paphos from March 17 to 19, 2025. RSCy 2025 was organized by the ERATOSTHENES Centre of Excellence, the EXCELSIOR H2020 TEAMING project of the Cyprus University of Technology, and the Cyprus Remote Sensing Society. The event was supported by the Deputy Ministry of Research, Innovation, and Digital Policy and the European Space Agency (ESA).

The event highlighted the role of remote sensing in addressing environmental challenges and fostering international cooperation. A benchmark in remote sensing and geoinformatics, the conference attracted distinguished scientists and industry leaders from around the world. During the opening ceremony, Professor Diofantos Hadjimitsis, Managing Director of the ERATOSTHENES Centre of Excellence, delivered the opening address, stating that RSCy 2025 attracted over 300 participants from 30 countries, including representatives from leading organizations such as NASA, DLR, and ESA. Mr. Giorgos Komodromos, Deputy General Director at the Deputy Ministry of Research, Innovation, and Digital Policy, emphasized the centre's collaboration with the European Space Agency (ESA) and its progress towards becoming a member. Dr. Nektarios Chrysoulakis, President of the Board of Directors of the ERATOSTHENES Centre of Excellence, also delivered a welcome address.

The conference featured more than 22 thematic sessions covering **remote sensing, satellite data, geoinformatics, artificial intelligence (AI), and Synthetic Aperture Radar (SAR), with applications in agriculture, meteorology, environmental protection, disaster management, cultural**



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heritage, and blue growth. Additionally, 11 specialized workshops were conducted by the ERATOSTHENES Centre of Excellence.

As a leading research institution, the ERATOSTHENES Centre of Excellence is dedicated to advancing Earth observation, geoinformatics, and remote sensing technologies. It actively engages in international collaborations, leveraging cutting-edge satellite data and artificial intelligence for environmental monitoring and sustainable development. The Centre plays a crucial role in Cyprus's scientific landscape and is a key driver of innovation in the Eastern Mediterranean region.

Professor Konstantinos Karantzalos, General Secretary for Telecommunications & Posts at the Ministry of Digital Governance in Greece, highlighted the potential for cooperation between Greece and Cyprus in satellite programs. He emphasized how the integration of satellite data supports agriculture, forest monitoring, water management, and industrial development. "Cyprus is a priority in this area, and we are here to discuss how we can further develop our cooperation," he added. Dr. Younes Abouyoub, Head of Governance at the United Nations Department of Governance and Conflict Prevention, discussed the impacts of climate change in the Eastern Mediterranean and Middle East, stressing the need for regional cooperation, investments in renewable energy sources, and advanced data exchange to mitigate conflicts. Professor Nikolaos Panagiotou from Aristotle University of Thessaloniki presented on the evolving role of communication during crises, highlighting how scientists and media professionals can transform complex data into accessible reports for the public. Dr. George Zalidis (OPEKEPE, Greece) examined the role of Earth observation in agricultural policy, emphasizing how public satellite data can optimize land use. Professor Ioannis Gitas from Aristotle University of Thessaloniki introduced NASA's MedRIN Network, an initiative connecting Mediterranean and international partners in environmental monitoring through space technologies. Mr. Tim Lemmens from the European Commission (DG DEFIS) analyzed the contributions of the Copernicus program to environmental monitoring, explaining how EU collaborations utilize satellite data for land use analysis, climate conditions, and resource management. Dr. Diana Francis, Assistant Professor of Earth Sciences and Head of the ENGEOS Lab at Khalifa University, UAE, presented "New Insights on Climate and Environmental Challenges in the Middle East through Remote Sensing." Mr. Vincent Ambrosia, Former Associate Program Manager for the NASA Applied Sciences Program and Adjunct Research Faculty in the Department of Applied Environmental Science at California State University – Monterey Bay (CSUMB), delivered a keynote titled "Reflections on 40-plus Years of Supporting Earth Observation Science for Wildland Fire: Where We Have Been & Where We Are Going." His presentation drew on his extensive experience in NASA in applying Earth observation technologies to wildfire management and research.

RSCy 2025 reaffirmed Cyprus's position as a regional hub for remote sensing and geoinformatics. As Professor Diofantos Hadjimitsis stated, "With over 100 researchers, we are committed to promoting sustainable solutions for society and industry." The conference provided a platform to explore the intersection of remote sensing, artificial intelligence, and environmental policy, translating scientific progress into practical applications for global benefit. Illustrates moment of the conference.



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Table 7: Moments of the RSCy 2025 International Conference at Paphos, 17-19/03/2025.



Another highlight of the conference was that ERATOSTHENES CoE undertook the establishment, management & operation of the first Space Thermal Business Center (Space BIC) in Cyprus. The official signing of the Convention took place on March 17, 2025, at RSCy2025 in Paphos, by Mr. Georgios EXCELSIOR: Grant Agreement No 857510 [Public] 42



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Komodromos, Deputy Director General of the Sub-Ministry of Research, Innovation & Digital Policy, and Professor Diofantos Hadjimitsis, Managing Director of the ERATOSTHENI Center of Excellence. The contract include: (a) support for young businesses & entrepreneurs, (b) Reinforcement of Cyprus's accession process to ESA and (c) Creating networks of innovation & collaboration. This achievement of the Space BIC award opens new horizons for Research, Innovation & Entrepreneurship in the Space sector (**Figure 19**).



Figure 19: Signing of contract of Space Thermal Business Center (Space BIC) in Cyprus between ERATOSTHENES CoE and DEC, 17/03/2025

12-14/03/2025: EUTOPIA Conference and Workshop in Dresden

Dr. Constantinos F. Panagiotou participated in the EUTOPIA Groundwater Modelling Workshop that took place in Dresden between 12th and 14th of March 2025. Dr. Panagiotou had the opportunity to show the recently developed groundwater model in Akrotiri peninsula to the attendees using the INOWAS Platform (<https://www.inowas.com/category/tools/>). An additional event that focused on networking activities took place (**Figure 20**).



Figure 20: Participation in EUTOPIA Conference and Workshop in Dresden, 12-14/03/2025



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2.4 Other activities (Meetings, Participation in International Events, Information Campaigns, etc.)

As mentioned in Chapter 2, in addition to the invited lectures and workshops organised and/or participated by the ERATOSTHENES CoE, staff members also attended various other activities such as meeting participation, events, and information campaigns.

Table 8 includes activities that were held online or physical presence related to meetings and participation in national and international events and targeted information campaigns. Although **these activities are not accompanied by visual material (e.g., photos)**, they are no less important in terms of outreach, extroversion, collaboration and visibility of the EXCELSIOR and ERATOSTHENES CoE activities targeted to expand the visibility to the EMMENA region. For clarity, efficiency and completeness, they are summarized below.

Table 8: Brief description of other activities as published in social media.

Date	Activity	Type	Description of the event (Aim, size of the audience, type of the audience)
12/10/2023	ERATOSTHENES CoE at PHAETHON Kick-Off Ceremony	Meeting (Roundabout discussion)	Team members from the ERATOSTHENES CoE attended the Kick-Off Ceremony for the PHAETHON CoE for Research and Innovation in the field of Intelligent, Efficient and Sustainable Energy Solutions at the University of Cyprus. At the end of the Ceremony, Prof. Diofantos Hadjimitsis and Dr. Marios Tzouvaras participated in the roundtable discussion “Brainstorming on Synergies Potential–Cyprus Teaming for Excellence”, where they had the opportunity to present the synergies of EXCELSIOR Project and the ERATOSTHENES CoE with other Cypriot Teaming projects.
25/10/2023 and 12/06/2024	20 Year PECS Anniversary Event	Event	Mr. Stelios Tziortzis and Mr. Komodromos of the the Department of Electronic Communications of the DMRID attended this event at Larnaca, Cyprus. The 12 current and former European Cooperating States had convened to celebrate the 20th anniversary of the ECS scheme, share lessons learned and state their expectations. The highlight of this event was the signing of the ECS Agreement with Malta .
26/10/2023 and 08/10/2024	9 th and 10 th ESA PECS Call Briefing Event	Event	The Department of Electronic Communications of the Department of Electronic Communications of the DMRID, in collaboration with the European Space Agency (ESA), organized the workshop «9th ESA PECS Call Briefing 2023 at CLEOPATRA Hotel,



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			Nicosia, Cyprus. Mr. Stelios Tziortzis attended this event to discuss the EXCELSIOR project and attract new collaborations with ESA members to prepare ESA PECS calls.
13/11/2023	GIS Day 2023	Event	The ERATOSTHENES CoE and CUT organized this event to celebrate GIS Day. The event took place in hybrid mode at the CUT Senate building. The audience included 60 participants, including local stakeholders, industry SMEs, and participants from the EMMENA region. During the event, the centre's activities were disseminated, followed by discussions targeting new collaborations, especially with people from the industry.
17/11/2023	Meeting with all Teaming Projects	Meeting	The meeting examined the prospect of further Government funding after the end of the Excelsior Project and/or the end of the current funding scheme. Dr. Silas Michaelidis participated on behalf of the ERATOSTHENES CoE. The audience included representatives from all the Centres of Excellence in Cyprus and the European Investment Bank.
26/01/2024 and 07/05/2024	ESA PECS Committee	Event	Mr. George Komodromos attended the committee events twice, which were held at ESA headquarters in Paris, France. During these events, he had the unique opportunity to engage with the key persons of the ESA PECS Committee, discussing the various information related to the next ESA PECS Calls. He also engaged with representatives of European Cooperating States to promote Cyprus's ambition to become a member and also identify ERATOSTHENES COE as a Strategic Partner for the implementation of the ERATOSTHENES CoE Space Strategy.
13/03/2024, 12/06/2024 and 18/09/2024	Space Programme Committee-COPERNICUS User Forum	Meeting	The meetings, held in Brussels, bring together key industry leaders, policymakers, and experts in the field of Earth observation. Mr. Stelios Tziortzis attended the meetings to engage in possible collaborations, identifying ERATOSTHENES CoE as a strategic Partner. He also informed the EU MS that the ERATOSTHENES CoE plans to develop an EO Ground Station capable of receiving NRT EO data and be part of the Collaborative Copernicus Ground Segment (an agreement is pending to be signed between ERATOSTHENES CoE and ESA).



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<p>14/03/2024, 13/06/2024 and 19/09/2024</p>	<p>Space Programme Committee- COPERNICUS Configuration</p>	<p>Meeting</p>	<p>On behalf of the EXCELSIOR project, Mr. Stelios Tziortzis attended the meeting in Brussels. During this meeting, the Regulation (EU) 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme and repealing Regulations (EU) No 912/2010, (EU) No 1285/2013 and (EU) No 377/2014 and Decision No 541/2014/EU was discussed.</p>
<p>11/03/2024- 15/03/2024</p>	<p>Participation in Solar Winter School 2024</p>	<p>Event</p>	<p>Our team member Ms. Georgia Charalambous of the ERATOSTHENES CoE, participated in the Solar Winter School, which took place at Campus Pierre Laffitte in Sophia Antipolis, France. During the event, there were meetings with ATARI project partners and meetings and ideas exchanges with researchers from France, the UK, and Morocco.</p>
<p>15/03/2024</p>	<p>ERATOSTHENES CoE Research team meets with Research and Innovation Foundation</p>	<p>Meeting</p>	<p>Our team members had the opportunity to be informed by Ms. Katerina Karakasidou from the Research and Innovation Foundation about funding opportunities through various European Research Council (ERC) calls. Ms. Katerina Karakasidou is the scientific officer in the European Programmes Department of RIF and the National Contact Point (NCP) of Cyprus. She is also a Programme Committee Member for the European Research Council (ERC) for Cluster 2 “Culture, Creativity and Inclusive Society” of Horizon Europe.</p>
<p>27/03/2024, 18/06/2024, 23/10/2024 and 17/12/2024</p>	<p>ESA Council</p>	<p>Event</p>	<p>The 323rd session of the ESA Council was carried out in Paris, France. Mr. Stelios Tziortzis attended this event and informed about the update to media about ESA’s vision for the European space sector by 2040 and the status of actions provided in the roadmap for the implementation of the Resolution on present and future European Space Transportation. The meeting also addressed the progress made in addressing critical challenges faced by ESA in preparation for the next Ministerial Council in 2025. This includes the establishment of the Independent Project Management Authority (IPMA), updating procurement and geo-return rules, service procurement and agreements with Member States. He also had the opportunity to engage</p>



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			with the ESA Member State members and discuss future collaborations through ESA PECS Calls.
18/11/2024	GIS Day 2024 - A World Connected: How GIS transforms Data into Decisions»	Event	The ERATOSTHENES CoE, CUT and the Cyprus Association of Rural and Survey Engineers (CARSE) organized this event to celebrate the GIS Day that took place at the Tassos Papadopoulos building at CUT premises, in hybrid mode. The audience of 50 people included local stakeholders, industry SMEs, as well as people from the EMMENA region (i.e., Tunisia). During the event, the activities of the centre were presented, as well as the newly established services and applications, followed by open discussion targeting new collaborations, especially people from the industry (i.e., AskWire LTD, Geomatic Technologies, Geografica LTD and Marathon Systems).
07/01/2025	ESA High Level Bilateral Meeting	Meeting	The meeting was held in Nicosia, Cyprus. During the meeting Mr. Stelios Tziortzis points out the importance of the ERATOSTHENES CoE in promoting space technologies and investigate future collaborations with ESA Delegation.
24/10/2024	59 th GEO High Level Working Group Meeting	Meeting (Online - https://econf.webex.com/econf/j.php?MTID=m0d751a44f5e99847f98173c11a41344e)	Prof. Diofantos Hadjimitsis participated as the nationally appointed representative from the met office in the GEO in the events with the main aim of tracking the recent trends in EO and incorporating them into ERATOSTHENES CoE STRATEGY. The agenda included the adoption of the draft agenda and summary report from the 58th HLWG meeting and then moves into several GEO-focused sessions covering preparations for the GEO Forum 2025, engagement with the GEOPOLITICAL Leadership Task Force, and discussions on upcoming GEO Executive Committee items. The meeting also included an update on the GEO Strategy Implementation Plan, and EuroGEO, featuring the EuroGEO Implementation Plan and workshop outcomes.

2.4.1 12/12/2023: SAFERS Project pilot exercise

The demo was attended by Mariza Kaskara of NOA, through an exercise that was designed for testing and providing feedback on the second release of the β2 version of the SAFERS integrated system. The exercise consisted of a wildfire risk scenario storyline inspired by the fire in Seich Sou Forest of Thessaloniki in 1997. Due to lack of data from that period, data from other more recent forest fires in



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other areas in Greece were used to simulate and demonstrate the platform's functionalities (**Figure 21**).

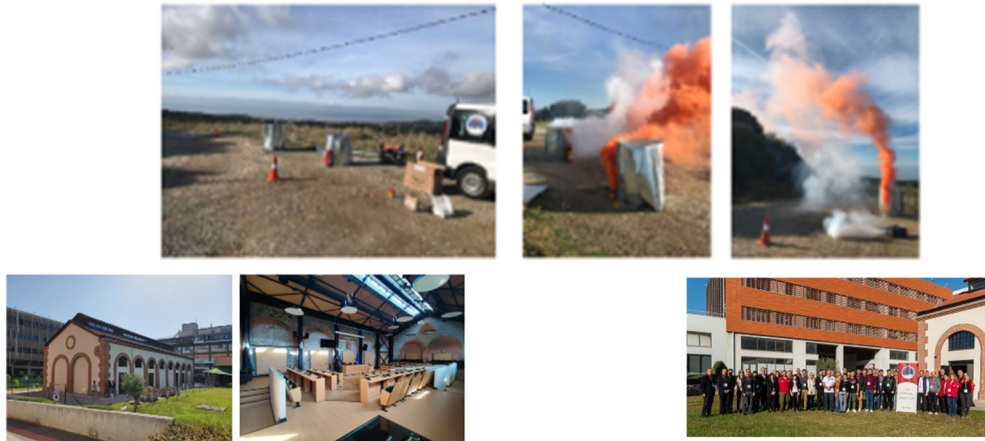


Figure 21: Participation in the SAFERS Project pilot exercise

2.4.2 26/02/2024-01/03/2024: In search for strategic partners in Tunisia (Participants: Prof. Andreas Anayiotos, Dr. Kyriacos Themistocleous, Dr. Constantinos Panagiotou)

Members of ERATOSTHENES Centre of Excellence visited Tunisia to promote the current activities of the Centre, both in terms of research and business areas, targeting on expanding the network of the Centre towards the implementation of the strategic planning in Eastern Mediterranean Middle East and North Africa (EMMENA) region. Multiple meetings with leading members of two academic institutions, particularly National Agronomic Institute of Tunisia (INAT) and Water Research and Technology Centre (CERTE), were conducted within the framework of the Memorandum of Understandings which have been signed recently with both organizations. Regarding the business activities, multiple meetings have been conducted with representatives of the water and agricultural authorities in both regional (Borj Cedria and Corba) and national level, along with members of the Tunisian Union of Agriculture and Fishery. In addition, an important meeting took place at the facilities of the Regional Centre of Remote Sensing for North Africa, which can facilitate the penetration of the Centre's activities in the entire North Africa region. The calendar of the visit is briefly described in Table 9.

Regarding the research activities, Dr. Constantinos Panagiotou met with existing collaborators from both INAT and CERTE to discuss recent research outcomes on groundwater quality management, and joint proposals that have either been already submitted, or will be submitted in the forthcoming months. Bilateral meetings have been conducted with faculty members from both Tunisian organizations to identify common research areas of interest, and a draft roadmap has been agreed that will be implemented within the next two years (**Table 9: Table 9**).



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Table 9: Activities Calendar of the searching for strategic partners in Tunisia

Date	Activity	Location
26/02/2024	Meeting with existing and potential collaborators in INAT to discuss the joint activities between the two institutions	Facilities of INAT
	Meeting with Assistant Professor Layla Ben Ayed to discuss expanding the current collaborative activities to the field of microbial risk assessment in aquatic ecosystems	Facilities of INAT
27/02/2024	Visit at Tunisian Union of Agriculture and Fisheries (UTAP)	Facilities of UTAP
	Meeting with the General Director of the National Water Resources (DGRE) from the Ministry of Agriculture	Facilities of INAT
28/02/2024	Visit at Regional Center for Remote Sensing of North Africa States (CRTEAN)	Facilities of CRTEAN
	University Seminar by Dr. Panagiotou: Application of multivariate statistical tools in environmental problems	Facilities of INAT
29/02/2024	Visit to Regional Agricultural Authorities of Nabeul governorate (CRDA of Nabeul)	Facilities of Regional Agricultural Authorities
	Field visit - Chiba watershed – Korba.	Korba Managed Aquifer Recharge facility
01/03/2024	Visit to Water Research and Technology Center (CERTE)	Facilities of CERTE

2.4.3 26/02/2024: Meeting with existing and potential collaborators to discuss the activities under the Memorandum of Understanding between ERATOSTHENES CoE and INAT

In attendance from the ERATOSTHENES CoE were Prof. Andreas Anayiotos, Dr. Kyriacos Themistocleous and Dr. Constantinos Panagiotou, and from INAT: Assistant Prof. Anis Chekirbane, Prof. Mohamed Fethi Ben Hamouda, Prof. Merzougui Amira, Dr. Khaoula Khemiri, Prof. Issam Nouri and Prof. Layla Benayed.

A meeting took place between the members of ERATOSTHENES CoE, Professor Anis Chikerbane (INAT) and the General Director of INAT, Professor Ben JEDDI Faysal, to provide a brief summary of the scope of the visit and the main outcomes of the current collaboration between the two organizations. Next, a round-table discussion took place regarding challenges that Cyprus and Tunisia face due to climatic changes. All participants presented their research activities, and a two-hour discussion took place that focused on identifying common research areas and integrating multiple techniques and methods to study surface and groundwater water management, including water management for irrigation purposes.

A one-hour meeting took place between Dr. Panagiotou and Prof. Layla Benayed (INAT), which focused on using quantitative microbial risk assessment due to the use of treated wastewater as a water source. It was pointed out that treated wastewater is used in Tunisia for recharging groundwater systems, which is subsequently used for agriculture purposes. Online meeting took place with Professor Marino Stylianou from the Open University of Cyprus to further discuss the usage of soil



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enhancers, such as biochar, and the potential of using life-cycle-assessment methods. Lastly, the next steps of this new collaboration were discussed (**Figure 22**).



Figure 22: Meeting with existing and potential collaborators to discuss the activities under the Memorandum of Understanding between ERATOSTHENES CoE and INAT

2.4.4 27/02/2024: Visit the Tunisian Union of Agriculture and Fisheries (UTAP)

In attendance from the ERATOSTHENES CoE were Prof. Andreas Anayiotos, Dr. Kyriacos Themistocleous, Dr. Constantinos Panagiotou, from UTAP were Mrs Sarra Ben Hammadi and Mr. Tarek Makhzoumi and from INAT was Assistant Prof. Anis Chekirbane.

Mrs. Hammadi presented an overview of the main issues that Tunisian farmers are facing due to the climatic conditions, and what needs to be addressed by scientists and entrepreneurs. Professor Anayiotos presented the ERATOSTHENES Centre of Excellence, as well as an overview of the emerging products and applications which are currently developed, with special attention to a web-based application Agri-Nexus Hub. Agri-Nexus Hub, conceptualized by Dr. Marinos Eliades and implemented by Mr. Stelios Neophytides (back-end development) together with Spectrum company (front-end development), uses as input daily climatic data of Earth-observation data from Sentinel-2 and Copernicus and in-situ data to estimate the reference and crop evapotranspiration of different crops, such as citrus, potatoes and olives, which are used to estimate the crop water needs. Both representatives of UTAP expressed their interest in bringing in contact with farmers who cultivate these types of crops while the next steps of this collaboration were determined (**Figure 23**).



Figure 23: Visit the Tunisian Union of Agriculture and Fisheries (UTAP)

2.4.5 27/02/2024: Meeting with the General Director of the National Water Resources (DGRE)

In attendance from the ERATOSTHENES CoE were Prof. Andreas Anayiotos, Dr. Kyriacos Themistocleous and Dr. Constantinos Panagiotou, from the Ministry of Agriculture, the General



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Director of Water Resources Sector was Dr. Aissa Hlaimi and from INAT were Prof. Issam Nouiri and Prof. Anis Chekirbane.

Professor Andreas Anayiotos provided a brief introduction of the ERATOSTHENES CoE activities, along with the main details of Agri-Nexus Hub, which was used as the starting point for a fruitful discussion regarding the water needs of different sectors (agriculture, industrial etc). Dr Hlaimi pointed out the need to integrate remote-sensing techniques with multiple techniques and methods to improve water management (surface water and groundwater sources). Dr. Themistocleous presented the capabilities of the Centre in terms of Earth observation technologies for a vast number of applications. Dr. Panagiotou presented the outcomes of on-going activities between ERATOSTHENES CoE and INAT regarding monitoring groundwater quality status via geostatistical and machine learning tools in Tunisian aquifers (**Figure 24**).



Figure 24: Meeting with the General Director of the National Water Resources (DGRE)

2.4.6 28/02/2024: Visit to Regional Centre for Remote Sensing of North Africa States (CRTEAN)

In attendance from the ERATOSTHENES CoE were Prof. Andreas Anayiotos, Dr. Kyriacos Themistocleous and Dr. Constantinos Panagiotou, from CRTEAN was the General Director Dr. El Hadi and Dr. Fatima Bouchneb and from INAT was Assistant Prof. Anis Chekirbane (**Figure 25**).

Dr. El Hadi presented the mission, composition, and main projects in which CRTEAN is involved, in particular the main partners of CRTEAN are Algeria, Mauritania, Morocco, Tunisia, Libya, Egypt and Sudan. The main goals of the CRTEAN are:

- The use of remote sensing techniques and supporting science systems by the member states in the fields of sustainable development and scientific research
- Transfer of technologies
- Capacity Building of organizations within the member states.

Dr. Themistocleous led the discussion regarding ERATOSTHENES CoE's capabilities in Earth observation technologies and demonstrated the applicability of these technologies in different research areas by members of the Centre via different international projects. Both organizations agreed to sign a Memorandum of Understanding that will include joint participation in research proposals, knowledge



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exchange, etc. Dr. Habi has already been officially invited to attend Cyprus's International Conference on Remote Sensing and Geoinformation of Environment (RSCy2024).



Figure 25: Visit to Regional Centre for Remote Sensing of North Africa States (CRTEAN)

2.4.7 28/02/2024: University Seminar by Dr. Panagiotou: Application of multivariate statistical tools in environmental problems

Prof. Andreas Anayiotos, Dr. Kyriacos Themistocleous, and Dr. Constantinos Panagiotou were in attendance at the ERATOSTHENES CoE. From INAT, Faculty members and graduate students attended.

Within the Memorandum of Understanding framework between the two organizations, Dr. Panagiotou gave a seminar in which he provided insights on how geostatistical and machine learning tools can be used to solve environmental problems. Illustrative examples were shown based on joint research activities between Dr. Panagiotou and Prof. Chikerbane, particularly assessments of groundwater quality of aquifer systems in Tunisia with the use of geostatistical methods and machine learning regression models, stochastic simulations for quantifying the infection risks associated with pathogen exposure and mapping the suitability of regions for installation of managed aquifer recharge schemes. An extensive discussion followed the seminar between the presenter and the audience, focusing on the applicability of these techniques at specific problems of interest for the participants, along with an exchange of contacts for further discussion (Figure 26).



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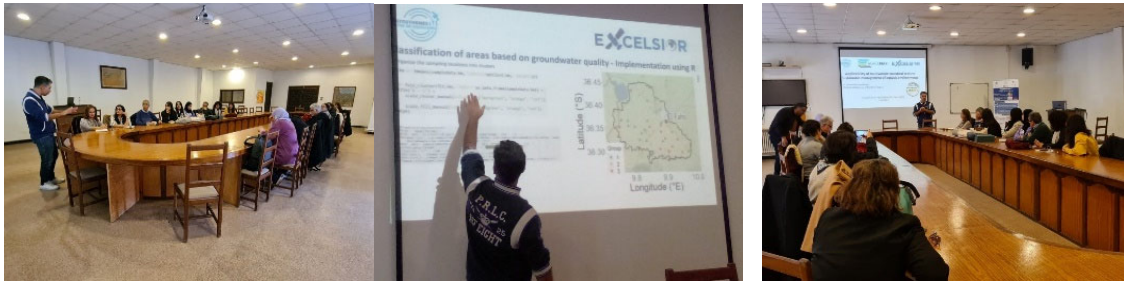


Figure 26: University Seminar by Dr. Panagiotou: Application of multivariate statistical tools in environmental problems

2.4.8 29/02/2024: Visit to the Regional Agricultural Authorities of Nabeul governorate (CRDA of Nabeul) and field visit in Korba MAR facility

Dr. Constantinos Panagiotou and Prof. Anis Chikerbane and Prof. Layla Benayedmet from INAT met with the regional agricultural authorities (CRDA), which included the Director, Mr. Samir Gabsi, the operator of MAR system, Ms Hanene Kraiem and members of the Regional Authorities.

Dr. Panagiotou presented the capabilities of the ERATOSTHENES Centre of Excellence on mapping the groundwater quality using stochastic interpolation methods and explained how these methods can be used by the regional authorities to address the extent of seawater intrusion at the coastal area of Corba and generate risk zones based on groundwater samples. Mrs. Hanene Kraiem (CRDA) agreed to provide Dr. Panagiotou with data collected from monitoring wells located near Korba Managed Aquifer Recharge scheme. In addition, Dr. Panagiotou presented the capabilities of Agri-Nexus Hub for estimating the reference and crop evapotranspiration of specific crops (particularly citrus, potatoes) and provided details regarding the technology readiness level. Mr. Samir Gabsi (Director of CRDA) agreed to provide a parcel (farm field) for both citrus and potatoes, along with climatic data, enabling the Agri-Nexus developing team (Dr. Marinos Eliades and Mr. Stelios Neophytides) to adapt the outputs of the application based on the site-specific conditions. Regarding the installation of monitoring systems for calibration purposes, both sides agreed to secure funds via joint activities (e.g., projects). Dr. Panagiotou visited the MAR facility in Korba, where Mrs. Kraiem provided a detailed description of the MAR components and the main issues associated with its functionality. A first set of groundwater samples from the MAR site are expected to be provided to Dr. Panagiotou to assess the extent of seawater intrusion in the vicinity of the site (**Figure 27**).



Figure 27: Visit to the Regional Agricultural Authorities of Nabeul governorate (CRDA of Nabeul) and field visit in Korba MAR facility



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2.4.9 01/03/2024: Visit to Water Research and Technology Centre (CERTE)

Dr. Panagiotou met with all members of the Georesources Lab of CERTE, led by Prof. Amar Mlayah, and with members of the regional division of Ministry of Agriculture, led by Mr. Mouamen Selmi. An extensive discussion was held based on the ongoing joint activities between the ERATOSTHENES CoE and CERTE, as defined in the Memorandum of Understanding signed in 2023, and how these activities can be useful for the regional authorities. Mr. Selmi agreed to provide access to land parcels containing citrus to evaluate the performance of Agri-Nexus application. Furthermore, Prof. Khadhar agreed to provide access to soil data (moisture and salinity) collected within a parcel in which citrus is cultivated. The CERTE team agreed to support the Ministry's and ERATOSTHENES CoE's collaboration. A brief discussion with the Agri-Nexus Development team, consisting of Dr. Marinos Eliades and Mr. Stelios Neophytides, took place at the end of the meeting to clarify some application details. In addition, Dr. Panagiotou had a private meeting with Prof. Khadhar to discuss ongoing collaboration activities, along with a brief tour of the facilities of the Georesources Lab (**Figure 28**).



Figure 28: Visit to Water Research and Technology Centre (CERTE)

The activities related to searching strategic partners in Tunisia significantly advanced ERATOSTHENES CoE's strategic positioning in the EMMENA region by bridging research and business domains through targeted engagements with Tunisian professionals. Members of the ERATOSTHENES CoE team advocated for the Centre's research and business activities during a series of high-level meetings with the academic leadership of the National Agronomic Institute of Tunisia INAT, the Water Research and Technology Centre CERTE and other regional water and agriculture authorities as well as the Regional Centre of Remote Sensing for North Africa. This engagement contributed to the signing of a significant Memorandum of Understanding (MOU) and other agreements to undertake multidisciplinary collaborative research and projects which resulted in four (4) joint publications being published in high-impact peer-reviewed journals such as Elsevier and Springer [1–4]. In addition, the activities mentioned above resulted to the submission of one (1) Horizon Europe proposal, “*Advancing Sustainable Water Management Through Innovative Nature Based Solutions Adaptive to Extreme Droughts (Water-Investor)*” with main partners being the ERATOSTHENES CoE and INAT. These actions result from the activity aimed at enhancing the Centre's network and research scope in the region. Another significant achievement of the endeavour is the successful submit and fund of the “NEMESIS” project, under the HORIZON-MISS-2024-SOIL-01-01 call.



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2.4.10 17/05/2024, 10/06/2024, 19/06/2024, 28/06/2024, 23/09/2024: Mapping and Establishing Collaboration with Organizations for the Nemesis Project

Dr. Ioannis Varvaris and Dr. Constantinos Panagiotou held a series of meetings with representatives from INAT and UoG (University 8 May 1945 Guelma) before submitting the Nemesis proposal under the action HORIZON-MISS-2024-SOIL-01-01. The European Commission successfully funded the proposal and is currently preparing for the Grant Agreement (No. 101219087). These meetings served multiple purposes and were conducted on various levels, beginning with an assessment of the needs and challenges faced by local communities across Tunisia and Algeria. These challenges were directly related to the proposal's aim of establishing Soil Health Living Labs to combat desertification and create robust monitoring frameworks across a Living Labs network for soil health. Once the identified challenges and opportunities were mapped and confirmed to align with the proposal's scope and objectives, additional meetings took place to evaluate and finalize the selection of partners for the cross-border Soil Health Living Lab between Algeria and Tunisia. This process resulted in a partnership comprising six beneficiaries—three from Tunisia and three from Algeria: Institut National Agronomique de Tunisie (TN), Agence de la Vulgarisation et de la Formation Agricoles (TN), and Ezzayra Solutions (TN); University of Guelma (DZ), Bureau National d'Études pour le Développement Rural (DZ), and TM Blinacon (DZ). The project was allocated a total budget of €1,250,000, which will also support the acquisition of necessary infrastructure for the 12 pilot sites. The composition of the Living Lab ecosystem ensures representation across the quadruple helix, engaging key actors from research/academia, industry, governance, and civil society. Beyond structuring the Living Labs and defining planned activities, the meetings also aimed to identify and map the most relevant needs and challenges, correlating them with specific indicators that will be monitored throughout the project. Importantly, these meetings facilitated the identification of key stakeholders interested in the initiative. This effort resulted in 17 Letters of Support from various stakeholders across Tunisia and Algeria, who expressed their commitment to engaging with the cross-border Living Lab and potentially participating in project activities. Such action aligns with ERATOSTHENES CoE's broader strategy to expand its network across the EMMENA region. The last series of meetings focused on fostering cross-collaboration between the Tunisia-Algeria cross-border Soil Health Living Lab and the four other Living Labs to be established within the project, including Cyprus, which will be led by the ERATOSTHENES CoE (Figure 29).



Figure 29: Mapping and Establishing Collaboration with Organizations for the Nemesis Project



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2.4.11 30/05/2024: Meeting with the United Nations United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)

A meeting was carried out between ERATOSTHENES CoE and the UN-SPIDER of the United Nations Office for Outer Space Affairs (UNOOSA) to investigate ways to collaborate, and we also declared our interest to be part of their network of Regional Support Offices (RSO) by establishing the Cyprus Regional Support Office at our premises. UN-SPIDER RSOs are regional or national centres of expertise that collaborate with UN-SPIDER on its technical advisory support, capacity building and outreach to leverage space for disaster risk reduction in their region or country. The network allows UN-SPIDER to take advantage of the significant experience and capabilities offered by Member States to promote the use of space tools for disaster risk reduction worldwide. During the meeting, Dr Tzouvaras presented the capabilities and characteristics of ERATOSTHENES CoE and the added value it can bring to RSO network, due to its focus in the Eastern Mediterranean, Middle East and North Africa Region. During the meeting, it was agreed that the procedure to join the UN-SPIDER network, would be started and Mr Czarant invited us. After reviewing and signing the MoU, the process for joining the UN-SPIDER network was successfully completed on 17 February 2025, and ERATOSTHENES CoE is now officially the Cyprus Regional Support Office of UN-SPIDER, with Dr Marios Tzouvaras as its coordinator (Figure 30).

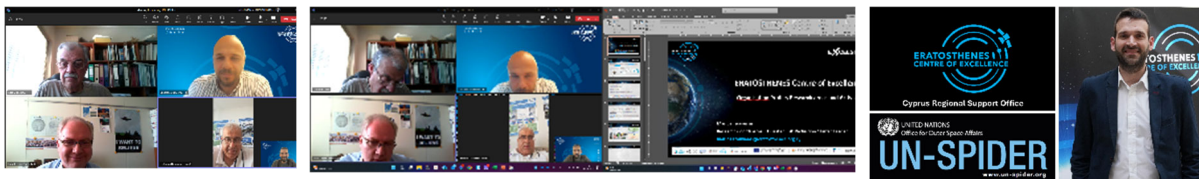


Figure 30: Meeting with the United Nations United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)

10/06/2024-13/10/2024: CAMS National Collaboration Programme in Cyprus

The ERATOSTHENES CoE has an important role in implementing the CAMS National Collaboration Programme (NCP) for Cyprus, working towards the integration of CAMS products into national systems. Given the country's unique environmental challenges, the collaboration focuses on tailoring CAMS data to Cyprus's specific geographical and climatic conditions, enhancing air quality monitoring, and providing actionable insights for policymakers and the public. The activities under this collaboration include the development of customized applications leveraging CAMS products, ensuring their seamless incorporation into national air quality networks. The ERATOSTHENES CoE actively engages with key national stakeholders such as the Department of Environment and the Department of Meteorology to align the integration with regulatory requirements and operational needs. Through the Cyprus Atmospheric Remote Sensing Observatory (CARO) and participation in international research infrastructures like ACTRIS-ERIC, the ERATOSTHENES CoE enhances observational capabilities and refines data assimilation processes to improve forecasting accuracy. A crucial component of this initiative is capacity building, which includes training programs aimed at equipping local experts with the skills needed to utilize and interpret CAMS products effectively. Public awareness campaigns are



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also conducted to educate citizens on air quality concerns, particularly regarding high UV radiation levels and desert dust events, thereby promoting informed decision-making for health protection.

The outcomes of this collaboration are multifaceted. The integration of CAMS products leads to improved air quality forecasting and reporting, enhancing national compliance with EU regulations. The development of advanced tools, such as a UV Index forecasting system and a data cube for dust and particulate matter visualization, provides critical resources for research and decision-making. Furthermore, the engagement of stakeholders fosters a more coordinated approach to air quality management, ensuring that the insights gained through CAMS are effectively translated into policies and mitigation strategies. Through this initiative, ERATOSTHENES CoE strengthens Cyprus's capacity for environmental monitoring and contributes to the broader objectives of CAMS in advancing atmospheric data utilization across Europe (**Figure 31**). Those initiatives led to organizing a workshop as described in Section 2.2.4.



Figure 31: Dr. Silas Michaelides, Operational Manager of the Centre of Excellence, attended the Copernicus Atmosphere Monitoring Service (CAMS) Eighth General Assembly, held from June 10-13, 2024.

2.4.12 10/06/2024-19/02/2025: Virtual UN-SPIDER Regional Support Offices

Following the invitation by UN-SPIDER to participate in the frequent RSO meetings, ERATOSTHENES CoE representatives attended three meetings. During the first meeting on 10 June 2024, Dr Tzouvaras presented the profile, capabilities and activities of the ERATOSTHENES CoE to the other RSO offices. During the RSO meetings, discussions and exchange of information regarding forthcoming events and opportunities took place. Also, projects and products developed by the various RSOs on space-based solutions for disaster risk reduction and emergency response were presented. The ERATOSTHENES Centre of Excellence is officially the Cyprus Regional Support Office of the United Nations Office for Outer Space Affairs (UNOOSA)-UN Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER), with Dr Marios Tzouvaras as its Coordinator (**Figure 32**).

This collaboration covers, among many topics, the realms of outreach and capacity building, horizontal cooperation and technical advisory support. We look forward to the networking opportunities the innovative projects and solutions that will emerge from this partnership.



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Figure 32: Virtual UN-SPIDER Regional Support Offices

2.4.13 19/06/2024: Visit at European Space Agency ESRIN, Italy

A visit to the European Space Agency (ESA) in Frascati, Italy, was organized within the framework of the AI-OBSERVER Twinning project, which included a tour of the facilities and presentations by scientists and experts on the latest developments in satellite technology and Earth observation. The ERATOSTHENES CoE researchers had the experience of visiting the Φ -Lab and the Φ -Experience at the European Space Agency and working with colleagues on Artificial Intelligence, Software Engineering and Remote Sensing disciplines (Figure 33). They also discussed applications relevant to environmental disasters, promoting strategic collaboration plans and joint research activities through EXCELSIOR project and the ERATOSTHENES CoE.



Figure 33: Visit at European Space Agency ESRIN, Italy

2.4.14 21/10/2024-25/10/2024 - Visit of Associate Professor Anis Chikerbene as part of the existing collaboration between ERATOSTHENES Centre of Excellence and National Agronomic Institute of Tunisia (INAT).

Professor Anis Chekirbane visited ERATOSTHENES CoE to enhance and expand the existing collaboration activities, documented in the signed Memorandum of Understanding between the two organizations (2023) (Figure 34).

21/10/2024- Meeting with the research team of the ERATOSTHENES CoE to discuss the details for installing sensors in agricultural fields in Tunisia. In addition, a meeting with Dr Constantinos F. Panagiotou was conducted at the Cyprus University of Technology premises to discuss the Memorandum of Understanding (MoU) between ERATOSTHENES CoE and INAT, current achievements and future directions.

22/10/2024- Visit to Fassouri Plantation and demonstration by Dr. Marinos Eliades of the monitoring system that is currently installed for estimating the water needs of the crops (citrus) and the soil state.

23/10/2024- Visit Polemidia dam and demonstrate the portable multi-beam system IWBMS of NORBIT Subsea AS for mapping the bottom of the dam. Additionally, an in-situ visit to the Akrotiri area and Yermasogeia dam area was held, particularly the complex of infiltration ponds for managed aquifer



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recharge and Yermasoyia dam, as part of joint activities between the two organizations in the ongoing AGREEMAR project.

24/10/2024 – A presentation given by Professor Chikerbene during the weekly meeting of the Department of Resilient Society at the Cyprus University of Technology premises and also at the main offices of the ERATOSTHENES CoE.

25/10/2024- Meeting with Professor Marinos Stylianou at the Open University of Cyprus (OUC) in Nicosia to expand the collaborative network among the Cypriot and Tunisian organizations.

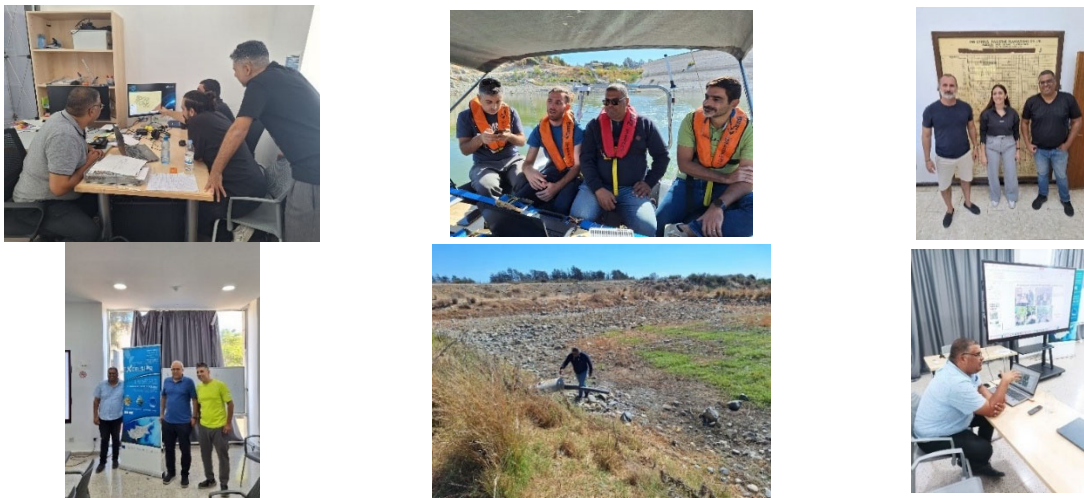


Figure 34: Visit of Associate Professor Anis Chikerbene as part of the existing collaboration between ERATOSTHENES Centre of Excellence and National Agronomic Institute of Tunisia (INAT) from 21/10/2024 to 25/10/2024

2.4.15 09/10/2024: Innospace Masters in Berlin

INNOspace Masters is the international innovation competition organised by the German Space Agency at DLR in cooperation with ESA, Airbus and OHB. Launched in 2015, it is open to companies of all sizes, start-ups, research institutions and universities, and individuals from all over the world. The competition promotes ideas for the transfer of technology and expertise from other industries to the space sector (spin-ins/New Space) or from space to non-space sectors (spin-offs). The competition was attended by Mr. Gunter Schreier, who focused on promoting EO in Cyprus, networking with potential clients for the ERATOSTHENES CoE DAS (antenna) in Cyprus and connecting with space incubators activities in Germany and similar activities in Europe (**Figure 35**).



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Figure 35: Innospace Masters in Berlin

2.4.16 23-15/10/2024: New Space Summit, Garching/Munich

The Munich New Space Summit serves as a vital platform for the convergence of experts, researchers, industry professionals, and policymakers to engage in discussions, share insights, and explore collaborations within commercial space exploration. The event encompasses diverse facets of New Space, including satellite development and initiatives driven by private companies and entrepreneurial endeavors. The Munich New Space Summit is organized by Munich Aerospace and sponsored by the Bavarian Ministry of Economic Affairs. During the three-day event, Mr. Gunter Schreier, consultant of the ERATOSTHENES CoE, had the opportunity to discuss the state of ERATOSTHENES CoE and EO in Cyprus with many potential customers and partners, as well as start-ups and European governmental agencies (Figure 36).



Figure 36: New Space Summit, Garching/Munich

2.4.17 19-21/11/2024: Space Tech Expo, Bremen, Germany

The international exhibition Space Tech Expo 2024 is considered one of the most critical events in the field of space, attracting startups and industry leaders and including several expert talks and panel discussions. The exhibition has attracted 7.000 attendees and hosted 700 exhibitors. The ERATOSTHENES CoE presence at the exhibition by Mr. Nikos Christoforou and Mr. Gunter Schreier



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certainly contributed to strengthening our visibility since during the exhibition, resulting in several meetings that were held with potential new customers, with the aim of considering new prospects for the utilization of the DAS or the provision of other related services. During the meetings, the Centre emphasized our capabilities to provide integrated solutions utilizing our extensive fiber optic network, our international points of presence, our hosting facilities, and the state-of-the-art EO Data acquisition station.

2.4.18 28/11/2024: Copernicus Climate Change Service (C3S) activities, Participation in the 2nd C3S NCP Forum

The ERATOSTHENES CoE participated in the 2nd C3S NCP Forum, which was held online. Dr. Rodanthi-Elisavet Mamouri represented the Centre, highlighting its role in climate-related data analysis, research, and support for climate adaptation planning. Key discussion points included identifying priority regions for addressing transboundary climate risks, where the Mediterranean Sea and the Middle East/North Africa were highlighted as critical areas. The session also explored challenges in using C3S data for transboundary cooperation, focusing on data comparability across countries, lack of coordination between nations, technical expertise gaps, and limited awareness of available data and tools. Additionally, the ERATOSTHENES CoE addressed pressing transboundary issues, emphasizing the importance of climate data in water resource management, air quality monitoring, disaster risk management, agriculture and food security, and energy resource sharing, particularly in solar energy production. The forum provided a valuable platform for sharing insights and strategies to enhance cooperation in climate adaptation and data utilization.

2.4.19 Meetings with the European Association of Remote Sensing Companies (EARSC)

On November and December 2024, the ERATOSTHENES CoE and EXCELSIOR project were promoted to introduce ERATOSTHENES CoE's new role as a as a new member of the ERSC. This promotion enhanced the further collaboration with the existing members of the association. Specifically, during the LANDSHIFT funded project kick-off meeting, EXCELSIOR activities were presented to Mr. Marc Tondriaux, EARSC Chairman and Chairman of Terranis SAS. This was followed by the promotion of ERATOSTHENES CoE new applicant to Mrs. Betty Charalampopoulou, Chairman in the Board of Directors to enhance the existing collaboration of ERATOSTHENES CoE and Geosystems Ltd company (**Figure 37**).



Figure 37: Meetings with the European Association of Remote Sensing Companies (EARSC)



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2.4.20 04/12/2024: Meeting with Italian Space Agency (ASI) and Romanian Space Agency (ROSA)

Prof. Hadjimitsis and Dr Tzouvaras met with members of the EXPERT Twinning project consortium, i.e. the Italian Space Agency, the Romanian Space Agency and DLR. The meeting was initiated from Prof. Del Frate, from University Tor Vergata, an advanced partner of the AI-OBSERVER Twinning project. The meeting was organised for networking purposes for the two projects. Moreover, the EXCELSIOR Teaming project and the ERATOSTHENES Centre of Excellence were showcased to ASI and ROSA to identify potential synergies in educational and research aspects between the three organizations. Signing an individual Memorandum of Understanding (MoU) with ASI and ROSA was discussed and initiated right after the meeting with MoU templates sent to both organisations. ROSA also agreed to support the RSCy2025 conference co-organised by ERATOSTHENES CoE on 17-19 March 2025 in Paphos, Cyprus. ROSA invited the ERATOSTHENES CoE to participate in Romania's Agriculture For Life Conference on 5-7 June 2025. As a result of this meeting, Dr Marios Tzouvaras was invited by ASI to provide a guest talk in the framework of EXPERT Twinning project (**Figure 38**).

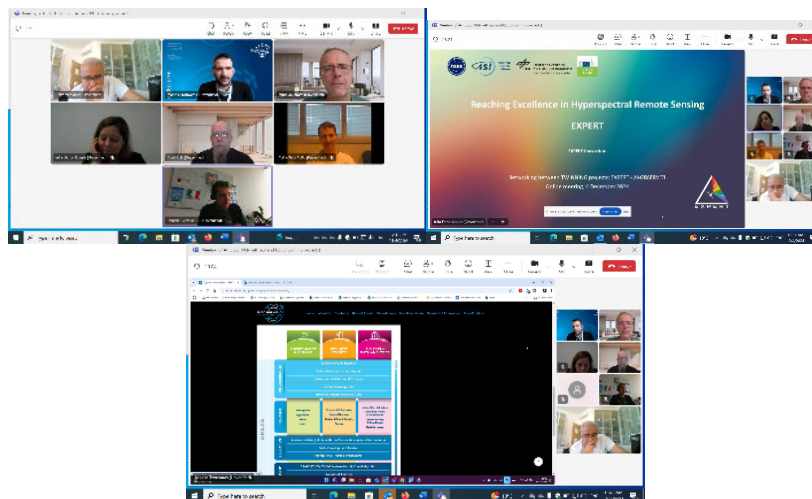


Figure 38: Meeting with Italian Space Agency (ASI) and Romanian Space Agency (ROSA)

2.4.21 08/01/2025: Meeting between ERATOSTHENES CoE and Bogor Agriculture University (IPB) in Indonesia

The ERATOSTHENES CoE is opening new horizons for collaboration in Indonesia, promoting scientific excellence and expertise in Earth Observation for agriculture. On January 8, 2025, a teleconference was held between representatives of the ERATOSTHENES CoE and Bogor Agriculture University (IPB) (**Figure 39**). The Ambassador of Cyprus to Indonesia, Mr. Nikos Panayiotou, and the Senior Specialist of the Ministry of Foreign Affairs of the Republic of Cyprus on Educational Diplomacy, Dr. Marinos Voukis led the initiative. The meeting aimed to transfer knowledge and expertise from the ERATOSTHENES CoE, with a focus on Earth Observation applications to enhance agriculture. This collaboration is expected to create new opportunities and prospects for the agricultural sector in Indonesia by leveraging innovative technologies and high-precision scientific data. The ERATOSTHENES CoE continues to expand its international presence, reaffirming its role as a leader in research and innovation in the Eastern Mediterranean, Middle East, and North Africa (EMENNA) region.



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Figure 39: Meeting between ERATOSTHENES CoE and Bogor Agriculture University (IPB) in Indonesia, 01/01/2025

2.4.22 07/02/2025: Meeting between ERATOSTHENES CoE and University of Alabama

On the 7th of February 2025, Prof. Andreas Anayiotos, Director of the ERATOSTHENES CoE Technology Transfer Office (INERATOSTHENES CoE), visited the University of Alabama (UAB) to discuss Concrete Corrosion Remote Sensing System (CCRSS) technology and more. Prof. Anayiotos had the privilege of meeting Prof. Sherif, Prof. Sisiopikou, and Prof. Ghasemi from the Civil Engineering Department of UAB. Amongst others, the potential of future collaboration was discussed, as well as the ERATOSTHENES CoE activities under the EXCELSIOR project (**Figure 40**).



Figure 40: Meeting between ERATOSTHENES CoE and University of Alabama

2.4.23 12/02/2025: Meeting between ERATOSTHENES CoE and Embassy of France

On the 12th of February 2025, a virtual meeting was held between ERATOSTHENES CoE and Mr. Alfonso Laurent, Senior Advisor at Jordan Civil Defense, Embassy of France (**Figure 41**). During the meeting, the



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activities of the ERATOSTHENES CoE were presented. Following this, the needs of Civil Defense were explored, as well as potential areas for future collaboration, and applications of common interest in disaster prevention, management, and mitigation. The discussion also covered leveraging cutting-edge infrastructure and the provision of advanced services.

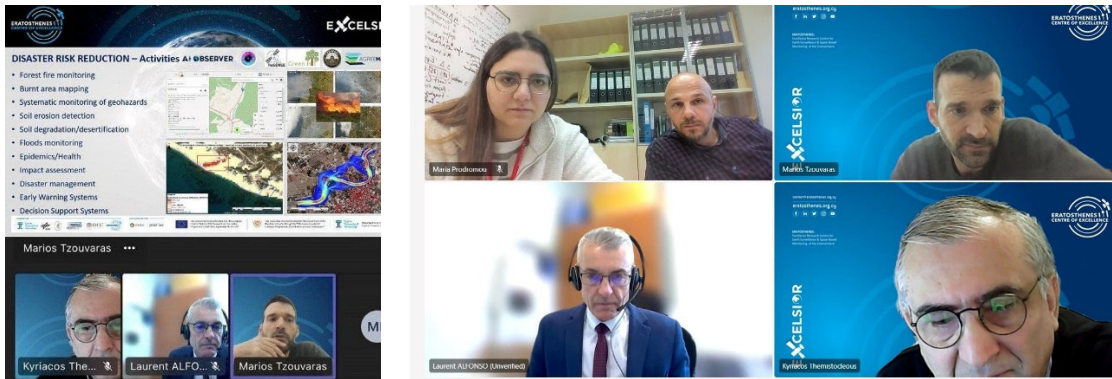


Figure 41: Meeting between ERATOSTHENES CoE and Embassy of France, 12/02/2025

2.4.24 14/02/2025: Guest talk in the framework of the EXPERT Twinning Project Training week at Agenzia Spaziale Italiana (ASI)

Dr Tzouvaras hosted a 2-hour webinar titled: "Artificial Intelligence applied to Earth Observation data to address environmental hazards: AI-OBSERVER project and examples". During this webinar, various activities of the ERATOSTHENES Centre of Excellence in all 3 research departments were presented, with a focus on the EXCELSIOR H2020 Teaming project, AI-OBSERVER project, as well as other funded projects, such as CyCLOPS+, Green HIT and STEPS projects. The event was attended by over 15 researchers from the Italian Space Agency, Romanian Space Agency and DLR (Figure 42).



Figure 42: Guest talk in the framework of the EXPERT Twinning Project Training week at Agenzia Spaziale Italiana (ASI)

2.4.25 24/02/2025: Visit at the City Hall of Mandra-Eidyllia / ERATOSTHENES CoE, Beyond EO Centre (NOA) and GEO-CRANDLE in Athens, Greece

Dr. Constantinos Panagiotou, Researcher B' at the ERATOSTHENES Center of Excellence and Alexia Tsouni, Research Associate at the Operational Unit BEYOND Centre of IAASARS/NOA met on the 24th of February 2025, at the City Hall of Mandra-Eidyllia with Dr. Armodios G. Drikos, Mayor, Dimitris Raftopoulos, Mayor's Special Consultant, and Christos Ilias, General Secretary, to present the ongoing activities within the framework of the EXCELSIOR project concerning flood risk assessment, flood monitoring and early warning in the Mandra river basin, as well as the transferability of these services in the Garyllis river basin in Cyprus. Furthermore, a hybrid meeting was held at the premises of the EXCELSIOR: Grant Agreement No 857510

[Public]



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Association of Civil Protection Volunteers of Mandra-Eidyllia “Pateras” and members of the Association as well as with Marios Stavrou (online), Head of Operations of the SupportCY Volunteers Corps, funded by the Bank of Cyprus. A fruitful discussion took place focusing on the ongoing collaborations, sharing experiences and operational challenges with regards to floods, as well as opportunities for joint activities soon, both in the framework of the EXCELSIOR project and the GEO-CRADLE GEO convener advancing capacity building and maturity assessment in Earth Observation (**Figure 43**).



Figure 43: Visit at the City Hall of Mandra-Eidyllia / ERATOSTHENES CoE, Beyond EO Centre (NOA) and GEO-CRANDE in Athens, Greece, 24/02/2025

2.4.26 28/02/2025: Discussion with the President of the Republic of Cyprus on Research and Innovation

At the Gala Dinner of the Paphos Chamber of Commerce and Industry on February 28, 2025, the Managing Director of the ERATOSTHENES Centre of Excellence, Diofantos Hadjimitsis, together with Dr. Maria Anastasiadou, Researcher at ERATOSTHENES, had the honor of discussing with the President of the Republic of Cyprus, Mr. Nikos Christodoulides. The discussion focused on the progress of the ERATOSTHENES CoE and EXCELSIOR project and the vital role of research and innovation in Cyprus (**Figure 44**).



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Figure 44: Discussion with the President of the Republic of Cyprus on Research and Innovation, 28/02/2025

2.4.27 21/03/2025: Presentation at EURO Mediterranean Alliance

On the 21st of March 2025 the Managing Director of ERATOSTHENES CoE, Prof. Diofantos Hadjimitsis was invited to give an online presentation to the insightful online meeting with members of the Euro-Mediterranean Alliance. During the session, the latest work and key initiatives of EXCELSIOR and ERATOSTHENES CoE were presented, emphasizing the commitment to advancing Earth observation, environmental monitoring, and sustainable development. A key highlight of the discussion was exploring opportunities to foster deeper collaboration and expand our network across the MENA region. Strengthening these ties will pave the way for impactful research, innovation, and regional resilience (Figure 45).



Figure 45: Presentation at EURO Mediterranean Alliance, 21/03/2025

2.4.28 25-26/03/2025: EUSPA Industry Days

On the 25th and 26th of March 2025, the EUSPA Industry Days 2025 event (<https://euspa-idays.eu/programme/25-03-2025>) was held online. ERATOSTHENES CoE and CUT participated in this event (Figure 46).

25/03/2025: Prof. Diofantos Hadjimitsis, the Managing Director of ERATOSTHENES CoE participated in the Networking in EO session. The first day of the event focuses on providing a comprehensive overview of the EU Space Programme components and EUSPA's key areas of development and procurement for 2025. Participants gained insights into the latest developments, targets, and upcoming opportunities across Copernicus, EGNOS, Galileo, GOVSATCOM, SSA, and more. Highlights



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include sessions on tools enablers like engineering, administrative, and corporate quality support for EUSPA. Networking tables in the evening provided a platform for focused discussions with experts in EGNSS, SATCOM, EO, MDI-COMM, and ADMIN. The key highlights of the first day included: (a) Updates on Copernicus, EGNOS, Galileo, GOVSATCOM, SSA, (b) insights into EUSPA's tools, facilities, and enablers and (c) networking opportunities with industry professionals and EUSPA representatives.

26/03/2025: The second day was a hands-on masterclass designed for those aiming to participate in EUSPA procurement procedures successfully. Attendees explored the legal context, tender documentation, and the steps to organize and submit a competitive bid. Sessions covered eligibility, selection, award criteria, and financial proposal requirements. This day was an excellent opportunity for professionals looking to understand the intricacies of EUSPA procurement processes and build their expertise in preparing high-quality proposals. The key highlights of the second day included (a) guidance on legal and procedural aspects of EUSPA procurement, (b) detailed insights into tender documentation and evaluation criteria, as well as interactive opportunities, including a potential simulation exercise and (c) focus on practical knowledge to improve bid competitiveness.

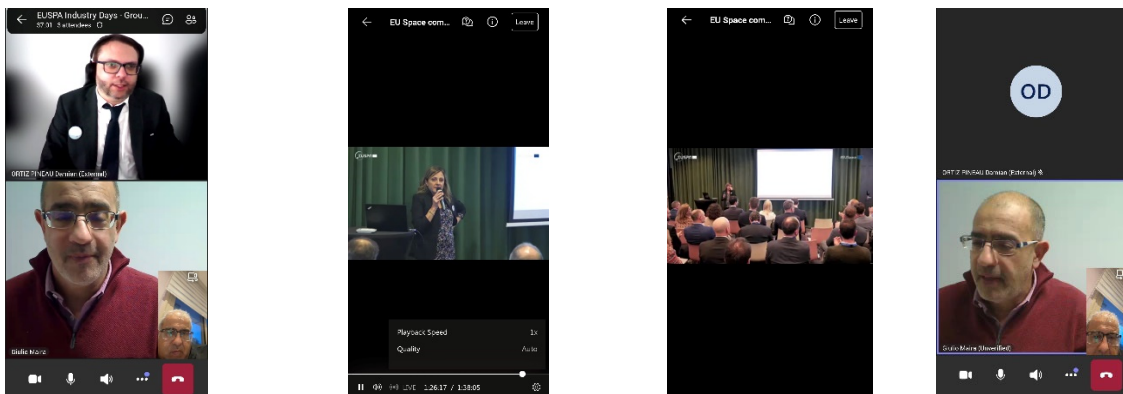


Figure 46: Participation in EUSPA Industry Days, 25-26/03/2025

2.4.29 26-27/03/2025: Cyprus-UK Bilateral Cooperation networking event

On behalf of ERATOSTHENES CoE, Dr. Kyriacos Themistocleous participated on the Cyprus-UK Bilateral Cooperation networking reception held on Wednesday, 26 March 2025 in Nicosia, Cyprus. Following the invitation by Mr. Michael Tatham CMG, the British High Commissioner, Dr. Themistocleous had the opportunity to network and promote the EXCELSIOR activities in the UK community, fostering stronger connections and collaboration between Cyprus and the UK. In the Cyprus-UK Bilateral Cooperation Event the ERATOSTHENES Centre of Excellence participated alongside the Department of Electronic Communications, Deputy Ministry of Research, Innovation, and Digital Policy, ESA, and the UK Space Agency. This event highlighted groundbreaking collaboration in space innovation and Earth observation technologies. Together, the participants aim to advance research and foster international partnerships. (Figure 47).



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Figure 47: Moments during the Cyprus-UK Bilateral Cooperation networking event, 27/03/2025

2.4.30 31/03/2025: “Self-Protection Measures Against Earthquakes” event

The ERATOSTHENES CoE and the Cyprus Civil Defense co-organized an experiential workshop entitled “Self-Protection Measures Against Earthquakes”. This workshop was held in CUT premises, in Greek language, as it was open to the public. During the workshop, hands-on activities were carried out, and participants had the opportunity to ask various questions regarding self-protection measures against earthquakes. The EXCELSIOR activities were presented to the Cyprus Civil Defense, enhancing the existing collaboration between the two entities (Figure 48).

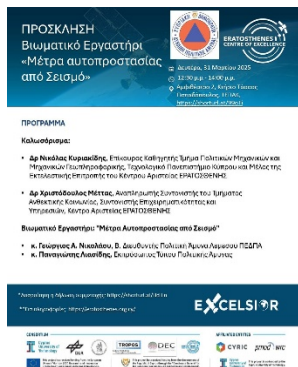


Figure 48: “Self-Protection Measures Against Earthquakes” workshop flyer and photo, co-organized by ERATOSTHENES CoE and Cyprus Civil Defense under the EXCELSIOR project

2.5 Memorandums of Understanding

From October 2023 to March 2024 multiple MoUs were signed between ERATOSTHENES CoE and key national, regional, and international authorities, institutions, and organizations (Table 10). By signing these agreements strategic collaborations and long-term partnerships are strengthened and fostered, serving as formal frameworks that define shared data and knowledge (especially scientific excellence), objectives, specified areas of cooperation and joined activities across domains such as EO, digital innovation and capacity building. The ERATOSTHENES CoE enhanced its ability to co-develop research and operational solutions (via services and applications), access complementary expertise and infrastructure and aligned its initiatives based on broader policy goals and societal needs. Additionally,



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ERATOSTHENES CoE highlighted its role as a regional hub in the EMMENA region, reflecting a tailored partnership aimed at developing added value for both parties and contributing to enhance the endeavors for a more resilient and sustainable future.

Table 10: List of MoUs signed between ERATOSTHENES CoE and organizations/authorities from October 2023 to March 2025

Date of Sign	Stakeholder/ Authority/ Organization	Description	Photo
13/10/2023	HELLASGIs	An MoU was signed between the ERATOSTHENES CoE and the HELLASGIs. On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof. Diofantos Hadjimitsis and on behalf of the HELLASGIs, by the president, Mrs. Vasiliki Giavi.	
16/10/2023	Paris Lodron Universität Salzburg	An MoU was signed between the ERATOSTHENES CoE and the Department of Geoinformatics (Z_GIS) with the Paris Lodron Universität Salzburg. On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof. Diofantos Hadjimitsis and on behalf of the Paris Lodron Universität Salzburg, by the Associate Prof. Dirk Tiede, Deputy Head of Z_GIS.	
16/10/2023	Paris Lodron Universität Salzburg	An MoU was signed between the ERATOSTHENES CoE and the Department of Geoinformatics (Z_GIS) with the Paris Lodron Universität Salzburg. On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof. Diofantos Hadjimitsis and on behalf of the Paris Lodron Universität Salzburg, by the Associate Prof. Dirk Tiede, Deputy Head of Z_GIS.	



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20/10/2023	Ministry of Agriculture	The Minister of Agriculture, Rural Development Environment, Mr. Petros Xenofontos, and the CEO of the ERATOSTHENES CoE, Prof. Diofantos Hadjimitsis, signed the MoU.	
03/11/2023	Community Council of Mandria	An MoU was signed between the ERATOSTHENES CoE and the president of the community council of Mandria, Mr. Kipros Michaelides.	
05/12/2023	Sewerage Board of Limassol Amathus (SBLA)	The MoU was signed at the SBLA offices between the Sewerage Board of Limassol Amathus and the ERATOSTHENES CoE.	
12/12/2023	Foundation for research and technology – Hellas	An MoU was signed between the ERATOSTHENES CoE and the FORTH Institute of Mediterranean Studies. On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof. Diofantos Hadjimitsis, and on behalf of FORTH by Professor Gelina Harlaftis.	
18/12/2023	Ambulances Directory of the OKYTY - State Health Services Organisation	The agreement was signed by our Managing Director, Prof. Diofantos Hadjimitsis, and the Director of the Ambulances Directorate, Ms. Riana Constantinou.	
30/01/2024	Miden	An MoU was signed between ERATOSTHENES CoE and Miden. On behalf of the ERATOSTHENES CoE, the Protocol was signed by	



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		the Managing Director, Prof. Diofantos Hadjimitsis, and on behalf of Miden by its founder, Mr Nikolas Stratis.	
31/01/2024	Community Council of Koili	An MoU was signed between the ERATOSTHENES CoE and the Community Council of Koili. On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof. Diofantos Hadjimitsis and on behalf of the Community Council of Koili by Mr Michalakis Efthimiou.	 
31/01/2024	Community Council of Stroumpi	An MoU was signed between the ERATOSTHENES CoE and the Community Council of Koili. On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof. Diofantos Hadjimitsis and on behalf of the Community Council of Koili by Mr Dimitrakis Palas.	 
11/02/2024	Community Council of Innia	An MoU was signed between the ERATOSTHENES CoE and the Community Council of Innia. On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof. Diofantos Hadjimitsis and on behalf of the Community Council of Koili by Mr Yiangos Tsivikos.	 
12/02/2024	Community Council of Argaka	An MoU was signed between the ERATOSTHENES CoE and the Community Council of Argaka. On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof. Diofantos Hadjimitsis and on behalf of the Community Council of Koili by Mr. Spiros Pelopidas.	  
14/02/2024	Development CO, Paphos Aphrodite	An MoU was signed between the ERATOSTHENES CoE and the Development CO. On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof.	  



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		Diofantos Hadjimitsis and on behalf of the Development CO, Paphos Aphrodite, by Mr. Marios Ioannou.	
19/02/2024	The Cyprus Institute	An MoU was signed between the ERATOSTHENES CoE and the Computation-based Science and Technology Research Center (CaStoRC) of The Cyprus Institute (Cyl). On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof. Diofantos Hadjimitsis and on behalf of the Cyl by its president, Prof. Stavros Malas.	
04/03/2024	Municipality of Agios Athanasios	An MoU was signed between the ERATOSTHENES CoE and the Municipality of Agios Athanasios. On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof. Diofantos Hadjimitsis and on behalf of the Community Council of Koili by the Mayor, Mr. Marinos Kyriakou.	
13/03/2024	Spectrum	An MoU was signed between the ERATOSTHENES CoE and Spectrum. On behalf of the ERATOSTHENES CoE, the Protocol was signed by the Managing Director, Prof. Diofantos Hadjimitsis, and Mr. Dimitris Dimitriou signed it on behalf of the Spectrum.	
09/04/2024	Regional Centre for Remote Sensing of North Africa States CRTEAN	The MoU was signed between Dr El Hadi Gashut, Director-General of the Regional Centre for Remote Sensing of North Africa States, CRTEAN & Prof. Diofantos Hadjimitsis, Managing Director of ERATOSTHENES CoE.	



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22/04/2024	STREMBLE	The MoU was signed between Dr Athos Antoniadis, C.E.O of STREMBLE, and Prof. Diofantos Hadjimitsis, Managing Director of ERATOSTHENES CoE.	
30/04/2024	Public Works Department (PWD) Coastal Section	On behalf of the Public Works Department, the MoU has been signed by Mr. Eleftherios Eleftheriou, and on behalf of the ERATOSTHENES CoE, Prof. Diofantos Hadjimitsis has signed the MoU.	
09/07/2024	Electi Consulting Ltd	On behalf of Electi Consulting Ltd, the MoU has been signed by the Director, Mr Nikolas Markou, and on behalf of the ERATOSTHENES CoE, Prof. Diofantos Hadjimitsis, has signed the MoU.	
09/08/2024	Kampakis and Co	On behalf of Kampakis and Co, the MoU has been signed by the Director, Mr. Stylianos Kampakis, and on behalf of the ERATOSTHENES CoE, Prof. Diofantos Hadjimitsis has signed the MoU.	
04/11/2024	Association of Cypriot Archaeologists (ACA)	The Eratosthenes Centre of Excellence (ERATOSTHENES CoE) and the Association of Cypriot Archaeologists (ACA) announce the signing of a landmark Memorandum of Understanding (MoU) aimed at fostering collaboration in the fields of cultural heritage protection, preservation, and promotion. This partnership will serve as a platform for the exchange of knowledge, resources, and expertise, benefiting both organizations and contributing to the wider preservation of Cyprus' cultural heritage with an impact on society. The MoU was signed by Prof. Diofantos Hadjimitsis, Managing Director of	



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ERATOSTHENES CoE, and Dr. Maria Michael, President of ACA. This agreement marks the beginning of a new chapter in cooperative efforts between two organizations dedicated to safeguarding Cyprus’ rich cultural legacy. The MoU, which will be in effect for three years (2024-2027), has the potential to be renewed based on mutual agreement and a joint progress report. This initiative is part of the broader activity of the Cultural Heritage cluster of ERATOSTHENES CoE’s Resilient Society Department. The aim of the cluster is to maximise the benefits of the application of Earth observation and digital technologies for the protection, management and preservation of cultural heritage.

13/11/2024

Municipality of Paralimni-Derynia

Implementing the MoU over the next five years will encompass a diverse array of activities and targeted collaborative actions. The primary objective of this undertaking is to elevate the living standards of the Municipality’s inhabitants, which will be supported by the formulation of scientific, advisory, and technical studies. These initiatives will also focus on the dual goals of environmental protection and promoting natural and urban spaces. The partnership between the two organizations incorporates osmotic processes that enable the transfer and sharing of knowledge from both entities. This collaboration will henceforth involve joint engagement in European Programs, Conferences, Seminars, and





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		<p>other initiatives. In light of the MoU, there will be a pronounced focus on ensuring direct, efficient, and meaningful cooperation and coordination in implementing European Regulations and legislation when required. Concurrently, there will be robust support for executing strategies and initiatives that foster research and academic pursuits.</p> <p>The Mayor of Paralimni-Dheryneia, Mr. George Nicolettos, signed the Memorandum of Understanding, while the Eratosthenes Centre of Excellence was represented by its Managing Director, Professor Diofantos Hadjimitsis.</p>	
27/01/2025	UCLan Cyprus	<p>Signed between Rector of UCLan University, Professor of Technology and Innovation in Education, Dr. Irimi Polycarpou and Prof Diofantos Hadjimitsis, the Managing Director of ERATOSTHENES CoE. The MoU will last 5 years including collaborative research activities, research proposals preparations, co-organization of scientific events, data exchange and joined publications.</p>	
17/03/2025	BEN-GURION University of the Negev (Israel)	<p>Signed during RSCy2025 between Prof Dan Blumberg and Prof Diofantos Hadjimitsis, the Managing Director of ERATOSTHENES CoE</p>	N/A
20/03/2025	Synchrotron-light for Experimental Science and Applications in	<p>This strategic partnership brings together the advanced remote sensing capabilities and geospatial expertise of the ERATOSTHENES Center of Excellence with SESAME’s world-</p>	



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the Middle East (SESAME) class synchrotron facility, the first major international research Center in the Middle East. The MoU established a foundation for joint research initiatives combining synchrotron techniques with Earth observation technologies. It enabled the exchange of scientific and technical expertise between our institutions and provided collaborative access to advanced research facilities and instrumentation. Together, the two entities will develop innovative methodologies for environmental monitoring and materials science while creating training opportunities and knowledge transfer for researchers and students.

3 Conclusions

The primary aim of this deliverable is to provide a thorough overview of the extroversion programme activities carried out during the 18 months from Month 49 (October 2023) to Month 66 (March 2025). Through this structured initiative, the ERATOSTHENES CoE has made significant progress in strengthening its external engagement, expanding its strategic reach, and fostering meaningful collaborations across various sectors.

The deliverable extensively details all activities undertaken by the ERATOSTHENES CoE and their specific objectives, highlighting their contribution to the centre’s overall mission. The findings demonstrate that the programme has successfully met its intended goals, which include:

- **Broadening the Horizons of ERATOSTHENES CoE’s Staff:** Participation in international events, conferences, and specialized training sessions has enriched the knowledge base of ERATOSTHENES CoE’s personnel, equipping them with the latest advancements and best practices in their respective fields. This exposure has enhanced their expertise and fostered a culture of continuous learning and innovation within the organization.
- **Shaping ERATOSTHENES CoE’s Strategic Direction:** The engagement in high-profile networking opportunities has allowed ERATOSTHENES CoE to refine and reinforce its strategic positioning. By interacting with key stakeholders, policymakers, and leading experts in Earth Observation and related disciplines, the ERATOSTHENES CoE has gained valuable insights that have informed its strategic planning and operational framework. These activities have helped



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align the centre's goals with regional and European priorities, ensuring its long-term relevance and impact.

- **Enhancing Collaboration with Industry Professionals:** The programme has facilitated numerous discussions and knowledge-sharing sessions with professionals from various industries. These interactions have played a crucial role in identifying emerging needs, fostering cross-sectoral partnerships, and exploring potential synergies for future collaborations. Strengthening these ties has reinforced ERATOSTHENES CoE's role as a key player in the regional and European research ecosystem.

Overall, the extensive number and diversity of activities undertaken during this period underscore the effectiveness of ERATOSTHENES CoE's extroversion efforts. The programme has proven instrumental in increasing the centre's visibility, strengthening its international footprint, and enhancing its capacity to address critical regional and European challenges. Moving forward, ERATOSTHENES CoE will continue to build upon these achievements, leveraging the momentum gained further to expand its outreach, partnerships, and str