



# Training event on Atmospheric Composition Data Exploitation Welcome Part1

Lucia Mona – [lucia.mona@cnr.it](mailto:lucia.mona@cnr.it)

**IR0000032 – ITINERIS, Italian Integrated Environmental Research Infrastructures System**  
(D.D. n. 130/2022 - CUP B53C22002150006) Funded by EU - Next Generation EU PNRR-  
Mission 4 "Education and Research" - Component 2: "From research to business" - Investment  
3.1: "Fund for the realisation of an integrated system of research and innovation infrastructures"



# Welcome to CNR - IMAA



The Institute of Methodologies for Environmental Analysis (IMAA) belongs to the Department of Earth System Sciences and Technologies for the Environment of the National Research Council (CNR). Since its beginnings, IMAA's research activities have been aimed at developing and integrating "Earth Observations" technologies from satellites, aircraft and ground for studying geophysical and environmental processes.

# Welcome to CNR - IMAA



## Earth observation

Development and application of Earth Observation techniques, digital tools and modeling for the study of geophysical and environmental processes

## Natural, anthropogenic, and environmental hazards

Science and innovation to understand and mitigate natural, anthropogenic, and environmental hazards

## Anthropogenic Impacts and Technologies for Environmental Remediation

Energy-environmental sustainability, climate planning, natural resources and circular economy

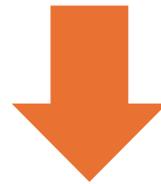
# CIAO = CNR-IMAA Atmospheric Observatory



CIAO <https://ciao.imaa.cnr.it>



CIAO is one of the most advanced atmospheric observatory in Europe and Mediterranean Region



A formal commitment of CNR and Italy assures CIAO activities for the **next 20 years** (at least)

CIAO

CNR IMAA Atmospheric Observatory



CIAO <https://ciao.imaa.cnr.it>



**Aerosol Remote Sensing** – since 2000

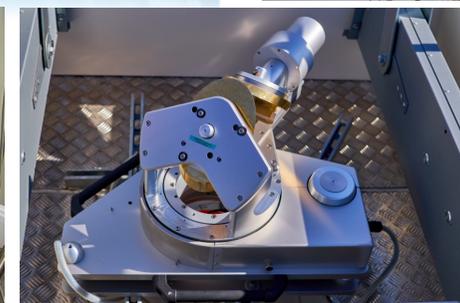
**Clouds Remote Sensing** – since 2005

**Radiosounding** – since 2000

**Trace gases Remote Sensing** – under implementation

**Aerosol in situ** – since 2023

**Trace gases in situ** - under implementation



CIAO <https://ciao.ima.cnr.it>

## European Research Infrastructures



ITINERIS

*European Research Infrastructures are facilities that provide resources and services for the research communities to conduct top-level research and foster innovation in their fields.*

- Great scientific equipment or set of instruments.
- Scientific collections, archives and structured information.
- Electronic infrastructures (e-infrastructures).
- Any other entity of a unique nature necessary for research.

*Physical, Remote, Virtual*



ACTRIS



ICOS  
European  
Research  
Infrastructure  
Consortium

## CIAO's involvement in Central Facilities

### **Head Office - Service and Access Management Unit (SAMU)**

*CIAO coordinates Services and Access provision for the entire ACTRIS*

### **Data Centre - ACTRIS Aerosol REMote Sensing data centre unit (ARES)**

*CIAO is responsible for centralized processing, provision and access of (meta)data, traceability and quality control of the data for the whole ACTRIS aerosol remote sensing component*

### **Centre for Aerosol Remote Sensing - Aerosol high-power lidar (CARS-AHL-CNR)**

*CIAO participates in lidar system quality assurance activities, intercomparison campaigns and testing of lidar components*



ITINERIS



ACTRIS

CIAO Visit – Focus on ICOS POT station

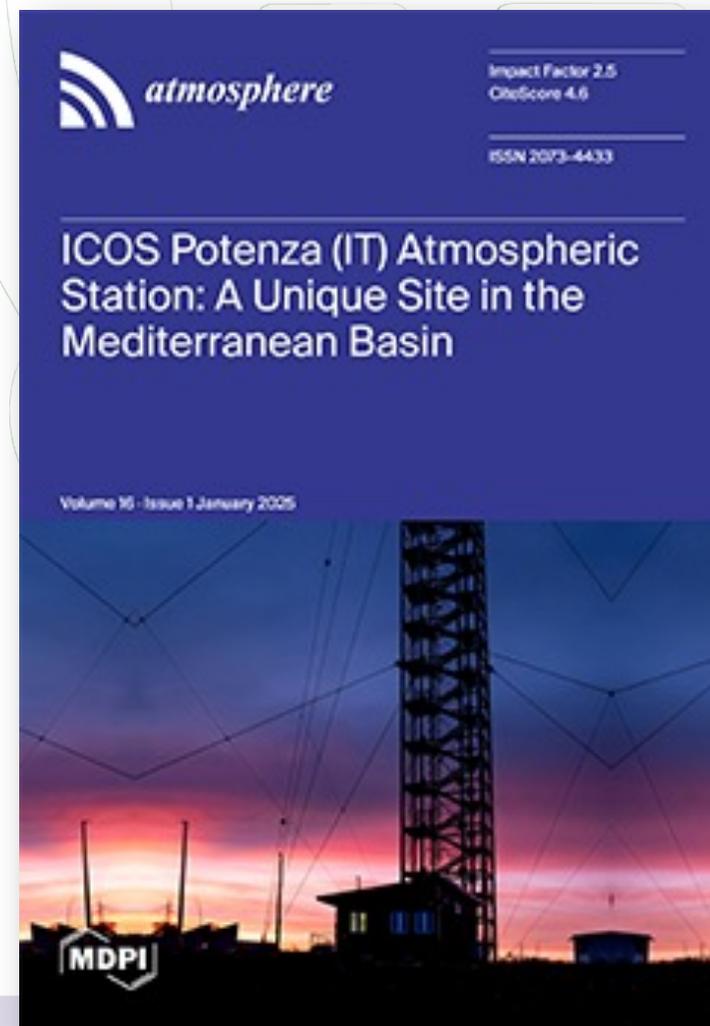
**Wednesday, 29 January at 9:00**

*ICOS continental atmospheric station in the  
**Mediterranean Basin.***



***Strategic observational point** for climate change  
investigation in this fragile area*

*ACTRIS colocation offers possibilities for **synergistic  
advanced studies** for atmospheric investigation*





# ITINERIS

ITINERIS

Italian Integrated Environmental Research Infrastructures System

➤ **7 Partners**



➤ **22 RI in the environmental domain**

➤ **Budget: 155,2 ML Euro**

➤ **Period: 1 November 2022 – October 2025 + 10 years of operation**

*PIANO NAZIONALE DI RIPRESA E RESILIENZA (PNRR) MISSIONE 4, COMPONENTE 2, INVESTIMENTO 3.1 “Fondo per la realizzazione di un sistema integrato di infrastrutture di ricerca e innovazione”, Project code IR0000032*

## ITINERIS Objectives

- ❑ **Create the national RI hub for scientific research in the environmental field**
  - providing access to digital services, data and resources
  - offering support to the country to address environmental problems
- ❑ **Develop research across the various environmental domains and beyond**
  - Using pre-existing data and resources
  - Developing new, even synergistic, products



*Italy is a particularly sensitive area from an environmental point of view: a critical point for climate change, it is one of the most populated areas in Europe, and it is a structurally fragile territory surrounded by the Mediterranean Sea.*





# THANKS!

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Ministero  
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e della Ricerca

