



Facilities Participating in the ITINERIS – ACTRIS Pilot Access Call



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 **ITINERIS**


ACTRIS
Exploring the Atmosphere

The Atmospheric simulation chambers



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ACD-C/LACIS-T, DE

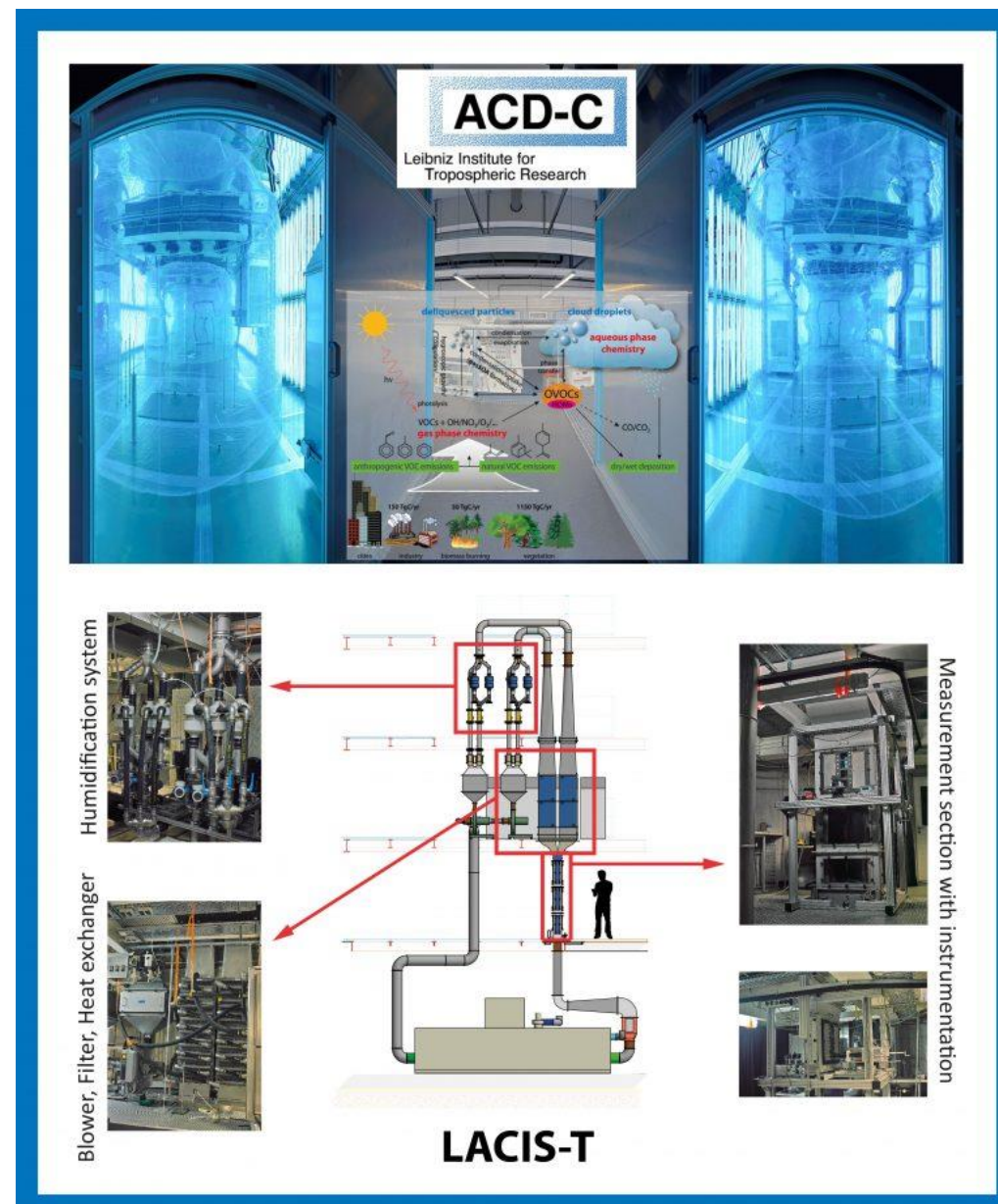
Aerosol Chamber of the Atmospheric Chemistry Department (ACD-C) and Turbulent Leipzig Aerosol Cloud Interaction Simulator (LACIS-T)

Location: Leipzig, Germany

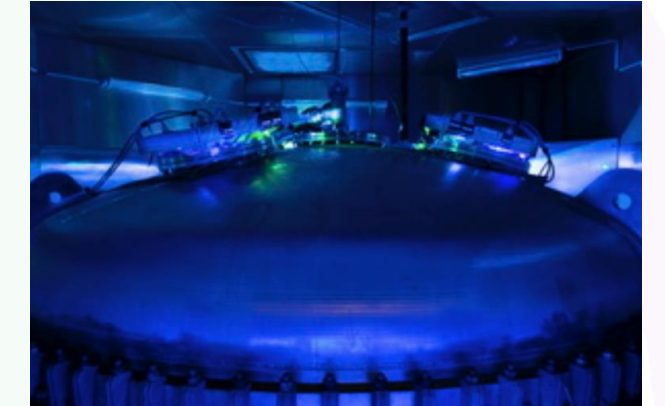
Website address: <https://www.tropos.de/en/>

Services provided:

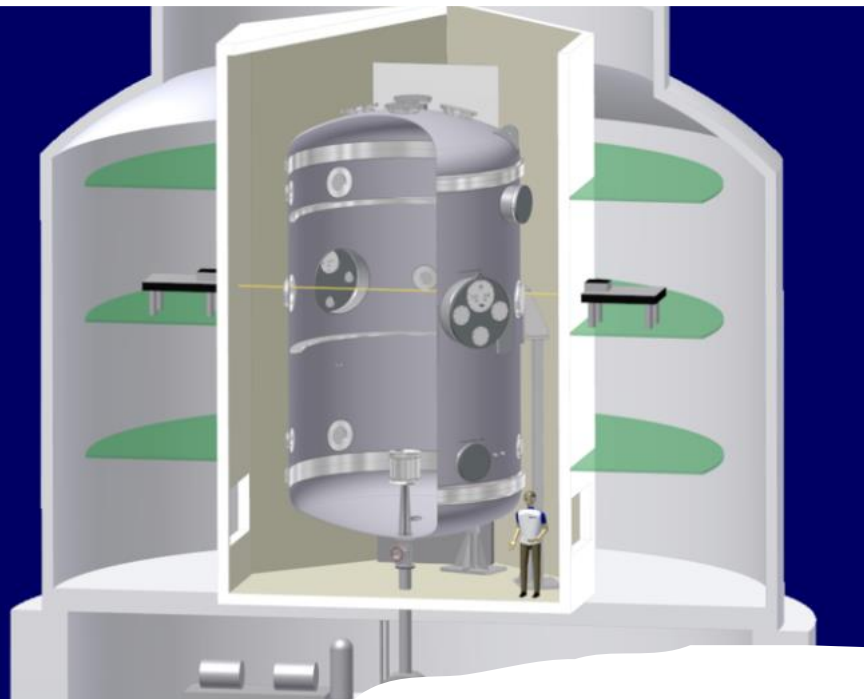
1. Training on: (a) state of the art offline and online analytical instrumentation, (b) good chamber practice
2. Scientific research on tropospheric multiphase processes under controlled chamber conditions
3. Newly developed instrumentation testing, (inter)calibrations and intercomparisons
4. Support for instrument (innovation) development



Aerosol Interaction and Dynamics in the Atmosphere



AIDAc



Location: Karlsruhe, Germany

Website address: <https://www.imk-aaf.kit.edu>

With AIDA we can perform experiments to investigate aerosol formation, processing and chemistry, the direct and indirect effects of aerosols on climate, as well as the formation and characterization of clouds.

AIDAd



AIDA has a unique technical design with temperature-controlled walls to simulate and investigate tropospheric cloud processes at constant cooling rates up to $10\text{ }^{\circ}\text{C min}^{-1}$.

Location: Aarhus, Denmark

Website

address: <https://chem.au.dk/en/research/research-areas-and-research-groups/physicalchemistry/atmospheric-physical-chemistry/equipment>

Services provided:

1. Aerosol generation and ageing in the temperature range -16 to 26°C and possibility for ramping of temperature during experiments.



CESAM, FR

Experimental Multiphase Atmospheric Simulation Chamber



Location: Créteil, France

Website address: <http://cesam.cnrs.fr>

Services provided:

1. Aerosol generation and ageing in the temperature range -16 to 26°C and possibility for ramping of temperature during experiments.

ChAMBRe, IT

Chamber for Atmospheric Modelling and Bio-Aerosol Research



Location: Genoa, Italy

Website address: <https://www.labfisa.ge.infn.it>

Services provided:

1. Bioaerosol characterization
2. Testing and characterization of bioaerosol monitors/sensors
3. Measurement of aerosol optical properties
4. Testing of samplers and gas/aerosol monitors
5. Design, organization and execution of custom experiments

ESC-Q-UAIC,RO

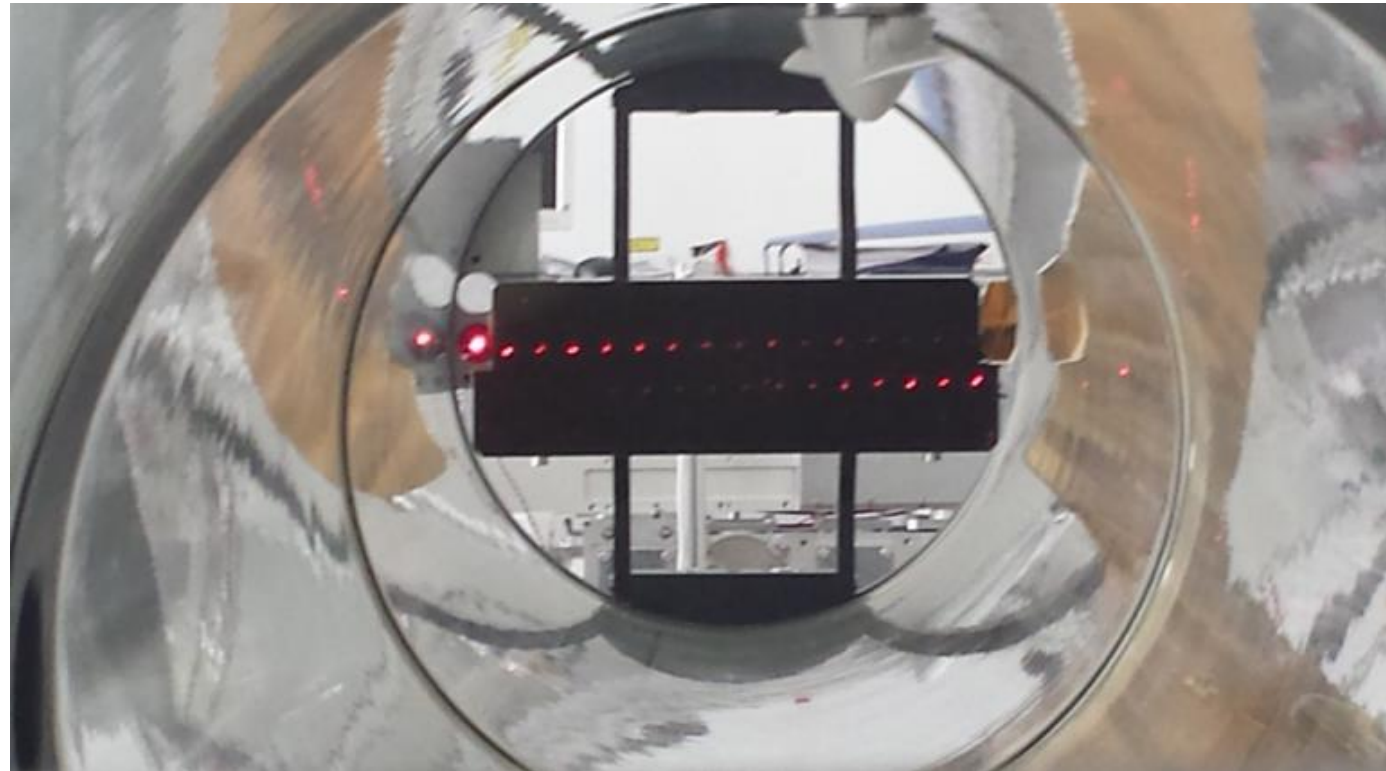
Environmental Simulation Chamber from the “Alexandru Ioan Cuza” University of Iasi

Location: Iași, Romania

Website address: <http://cernesim.uaic.ro>

Services provided:

Chemical degradation of pollutants under simulated atmospheric conditions (intercomparison with other similar facilities) and testing new instruments with applicability to the industry



EUPHORE,ES

European PHOtoreactor



Location: Valencia, Spain

Website address: <http://www.ceam.es/WWWEUPHORE/home.htm>

Services provided:

1. Scientific research at the EUPHORE atmospheric simulation chamber
2. Intercomparison and performance assessment of instrumentation at the EUPHORE atmospheric simulation chamber
3. Technical and innovation services at the EUPHORE atmospheric simulation chamber

HELIOS,FR

Outdoor Atmospheric Simulation Chamber of Orléans



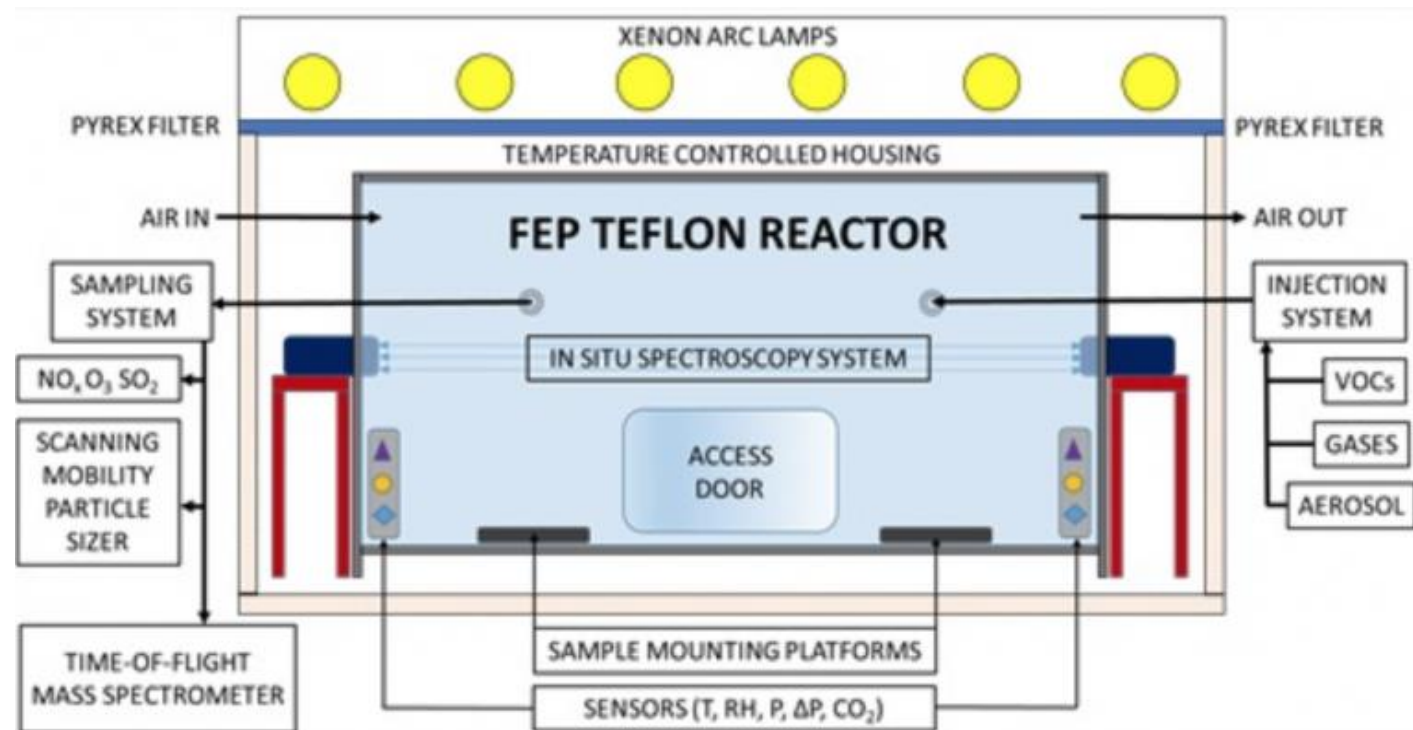
Location: Orléans, France

Website address: <https://helios-cnrs.org/>

Services provided:
Atmospheric Chemical Processes, Instruments testing
and intercomparison

IASC, IE

Irish Atmospheric Simulation Chamber



Location: Cork, Ireland

Website address: <https://www.ucc.ie/en/crac/>

Services provided:

Investigating atmospheric processes, as well as testing and developing new atmospheric measurement techniques.

KASCs, FI

An Environmental Chamber for Combustion Aerosol aging Studies



Location: Kuopio, Finland

Website

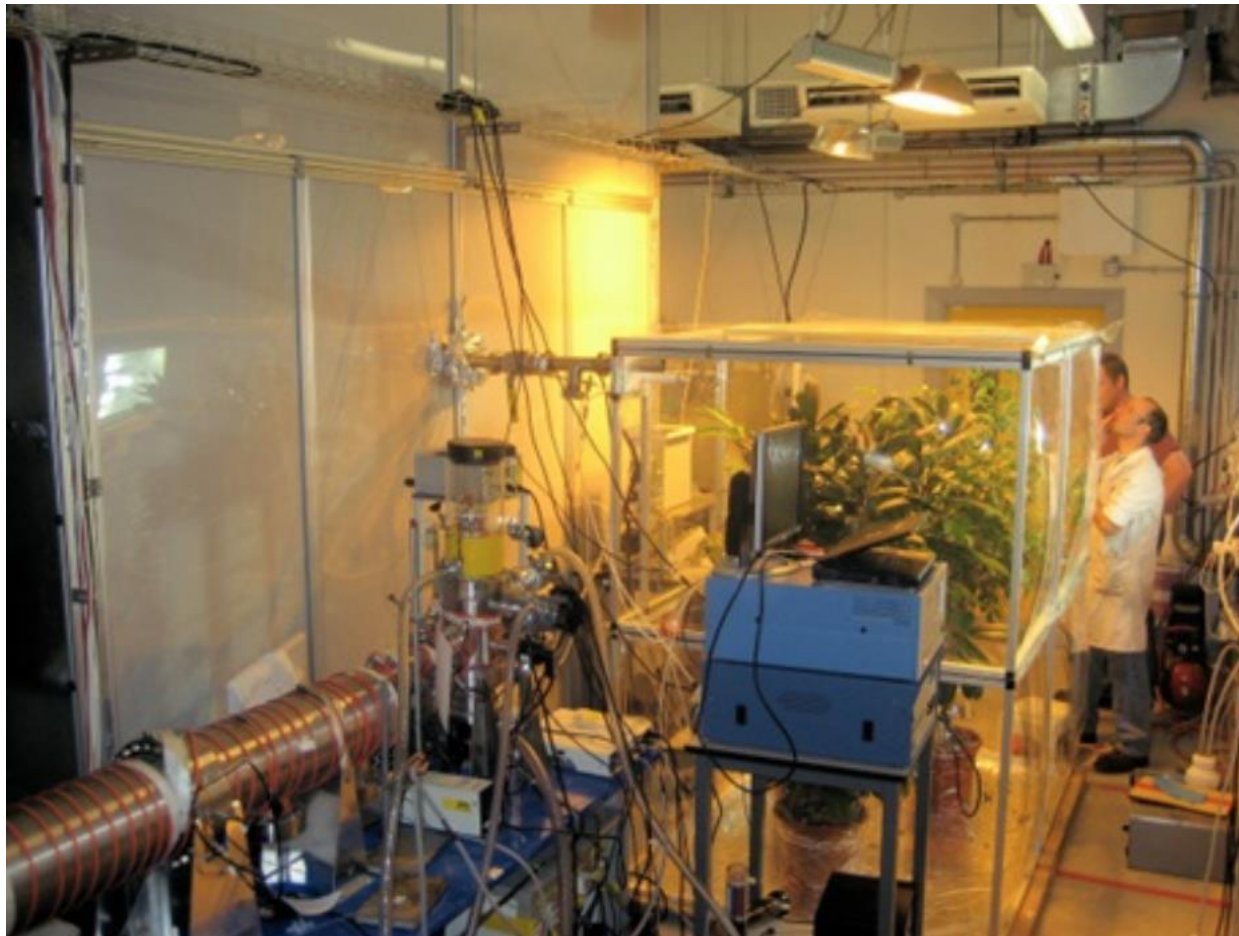
address: <https://www.uef.fi/en/web/aerosol/facilities>

Services provided:

KASC facility offers possibility for the holistic approach to tackle the relevant questions on anthropogenic emissions, their formation and aging and interaction with biogenic emissions, atmospheric processes and finally the adverse health effects.

MAC,UK

An Environmental Chamber for Combustion Aerosol aging Studies



Location: Manchester, United Kingdom

Website

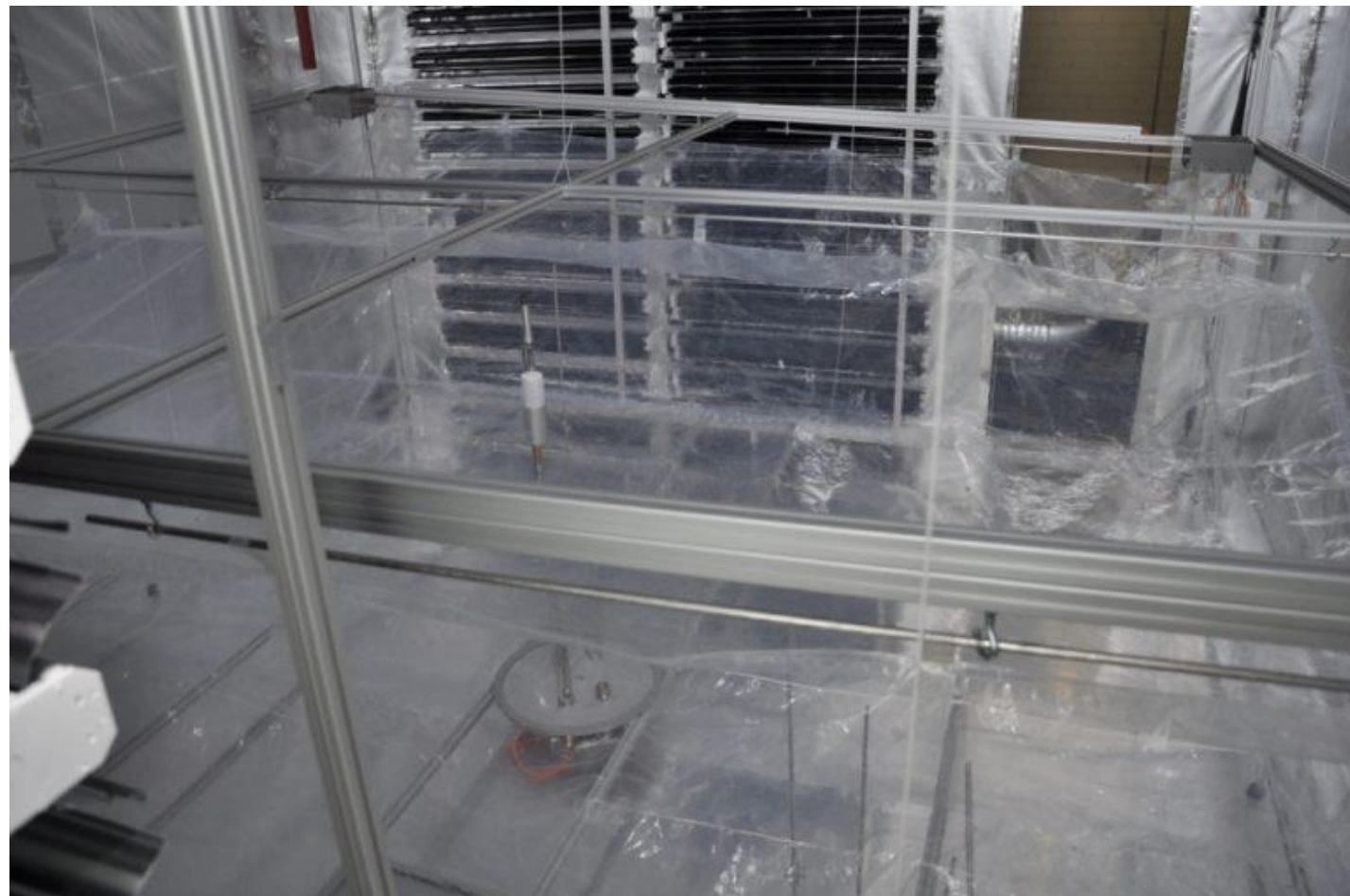
address: <http://www.cas.manchester.ac.uk/restools/aerosolchamber/>

Services provided:

The Manchester aerosol chamber (MAC) has been designed to study atmospheric processes of multicomponent aerosols under controlled conditions.

PACS-C2, CH

PSI Atmospheric Chemistry Simulation Chambers



Location: Villigen, Switzerland

Website address: <https://www.psi.ch/en/lac>

Services provided:

1. Scientific exploration at the PACS-C2 atmospheric simulation chamber
2. Newly developed instrumentation testing and intercomparisons

QUAREC, DE Quartz Reactor



Location: Wuppertal, Germany

Website address: <https://www.ptc.uni-wuppertal.de>

Services provided:

1. Investigation of kinetics and mechanism of gas-phase reaction systems
2. Testing of instruments for measuring air quality

SAPHIR, DE

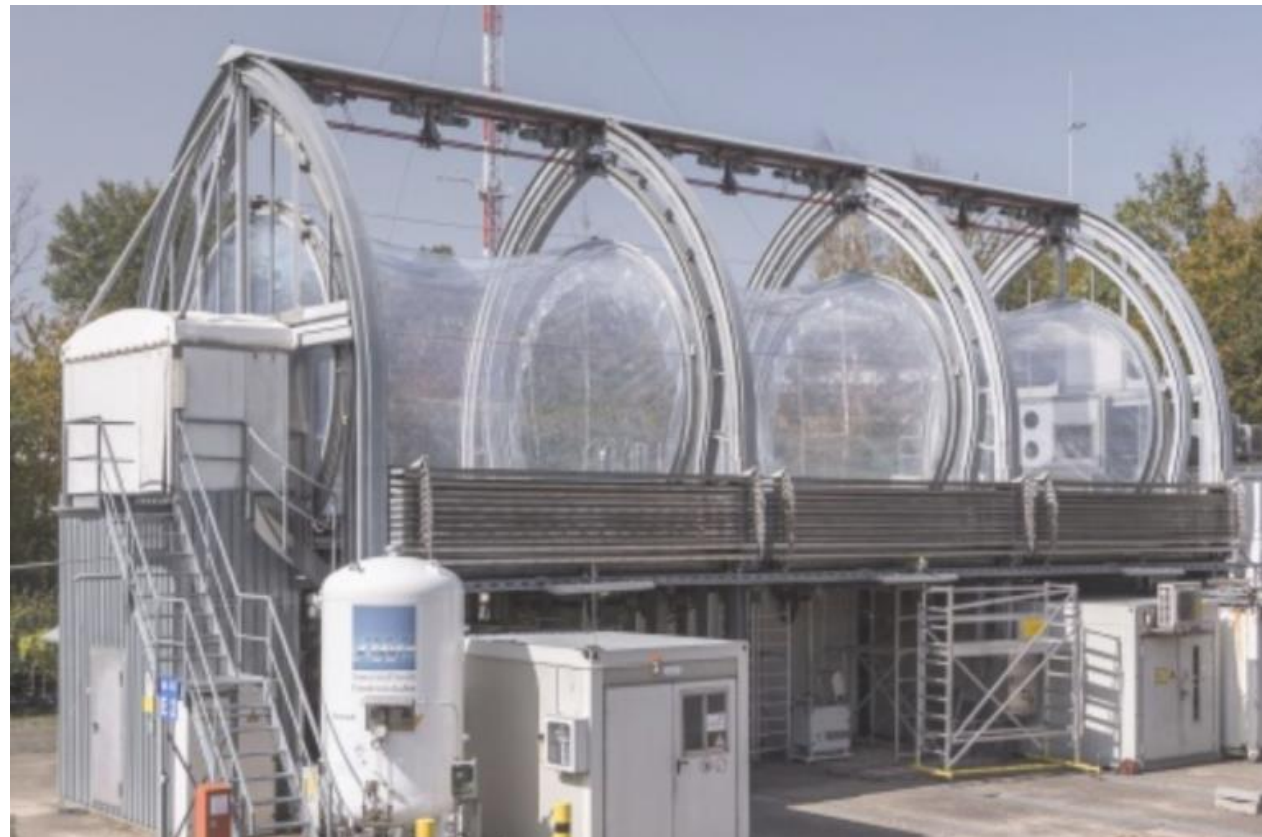
Simulation of Atmospheric Photochemistry in a Large Reaction Chamber



Location: Jülich, Germany

Website address: https://www.fz-juelich.de/iek/iek-8/EN/Expertise/Infrastructure/SAPHIR/SAPHIR_node.html

Services provided:
Scientific exploration at the SAPHIR atmospheric simulation chamber





The Central Facilities



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ACMCC SIRTA, FR

Aerosol Chemical Monitor Calibration Centre



Location: Plateau de Saclay, France (25 km South of Paris)

Website: <https://acmcc.lsce.ipsl.fr/doku.php>

Services provided:

The ACMCC ensures the role of European technical reference for the whole chain of quality assurance and quality control of online characterization of the aerosol chemical composition (including aerosol mass spectrometry), for both ambient and chamber measurements.

CARS-ASP, FR

Centre for Aerosol Remote Sensing - Automatic Sun/sky/lunar Photometers

Location: Lille, France

Website: <http://www-loa.univ-lille.fr/photons>

Services provided:

1. calibration, quality control, data processing and training services, and expertise in Aerosol Remote Sensing;
2. calibration and maintenance for sun/sky/lunar/polar photometers;
3. services dedicated to mobile photometry for users willing to upgrade their photometer for mobile (e.g., maritime) observation capabilities



CARS-CNR CIAO, IT

CNR Lidar calibration centre



Location: Tito, Potenza, Italy

Web site address: <https://www.actris.eu/facilities>

Services provided:

CIAO consists of a combination of advanced systems able to provide high quality long-term observations of aerosol and cloud properties, allowing to carry out studies by integrating data from several instruments.

CARS-ES-ISAF, ES

ACTRIS Centre for Aerosol Remote Sensing at Izaña Subtropical Facility



Location: Izaña Atmospheric Observatory, Tenerife, Sapin

Web site address: <https://izana.aemet.es/>

Services provided:
ISAF-Cal Calibration and intercomparison of photometers at IZO

CARS-RO RADO, RO

Centre for Aerosol Remote Sensing - Romanian Atmospheric 3D research Observatory

Location: ROMANIA

Web site address: <https://www.actris.eu/catalogue-of-services/services/aerosol-clouds-radiation-studies>

Services provided:

1. Support from the technical staff to install and operate the instruments
2. Support from the scientific staff to collect, process and analyze the data.

Ccice AIDA, DE **Centre for Cloud Ice Nucleation**



Location: Karlsruhe, Germany

Web site address: <https://www.actris.eu/>

Services provided:

The Center for Cloud Ice Nucleation (CCIce) is situated at the Karlsruhe Institute of Technology (KIT). Here, the large atmospheric simulation chamber AIDA (Aerosol Interaction and Dynamics in the Atmosphere) is employed for cloud studies, instrument inter-comparison or calibration.

CCRES-FR SIRTA, FR

ACTRIS Centre for Cloud Remote Sensing – France



Location: Plateau de Saclay, France (25 km South of Paris)

Website: [Facilities | ACTRIS](#)

Services provided:

CCRES-FR unit is hosted at the SIRTA atmospheric research observatory, and provides support to derive vertical profiles of cloud macrophysical and microphysical properties and related atmospheric variables.

CCRES-NL CESAR, NL

ACTRIS ACTRIS Centre for Cloud Remote Sensing – NL

Location: Lopik, the Netherlands

Website: [Facilities | ACTRIS](#)

Services provided:

The CCRES-NL unit develops drone-aided radar calibration procedures (H2020 ACTRIS-2 programme). Using the multi-instrumented Ruisdael Observatory in Cabauw measurement methodologies and retrieval algorithms have been developed for the determination of cloud properties.



CIGAS-CH, CH

Centre for Reactive Trace Gases In Situ Measurements



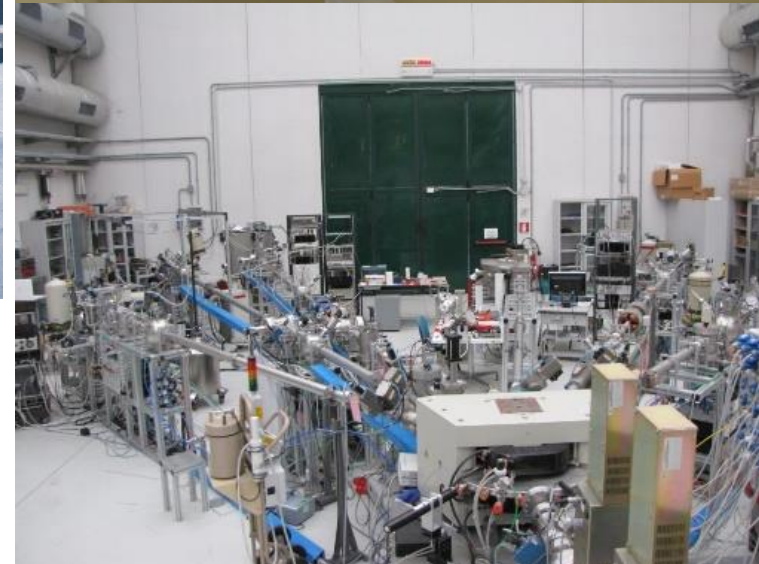
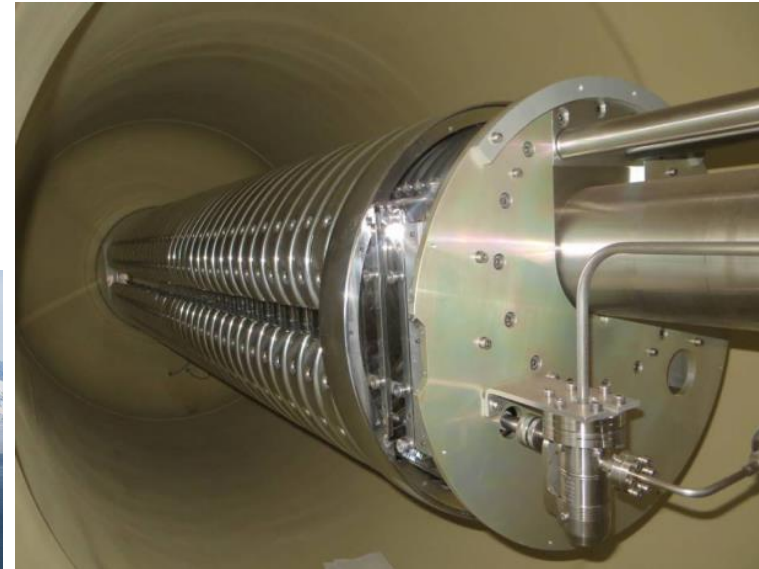
Location: Duebendorf, Switzerland

Web site address: <https://www.empa.ch/web/s5>

Services provided:

1. Measurement and calibration for VOCs
2. Measurement and calibration for halocarbons
3. Measurement and calibration for N₂O isotopes

EMC2-LABEC, IT laboratory of nuclear techniques for the environment and the Cultural Heritage



Location: Florence, Italy

Web site address: <https://web.infn.it/labec/en/about/>

Services provided:

A high-qualified centre for the development of new technologies based on particle accelerators and ionizing radiations, and for their applications in environmental contexts and in heritage science.



The Mobile Exploratory platforms



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AMP, PL ACTRIS-Poland Mobile Platform



Location: Sosnowiec, Poland

Website address: <https://us.edu.pl/en/nauka-i-badania/centra-badawcze/ulka/>

Services provided:

1. Access to services of the ACTRIS-Poland Mobile LAB In situ measurements
2. Access to services of the ACTRIS Poland Mobile Lab AMP remote sensing measurements

CIAO-MOBILE, IT CIAO Mobile Platform



Location: Tito, Potenza, Italy

Website address: <https://actris.it/en/ciao-cnr-ima/>

Services provided:

1. state-of-the-art instruments for aerosol and clouds investigation with high temporal and vertical resolution
2. combination of the instruments following ACTRIS SOPs and standards makes the CIAO mobile platform suitable for process studies and in-depth campaigns

FCoMLab, FI FORTH Mobile Atmospheric Simulation Chamber



Location: Sosnowiec, Poland

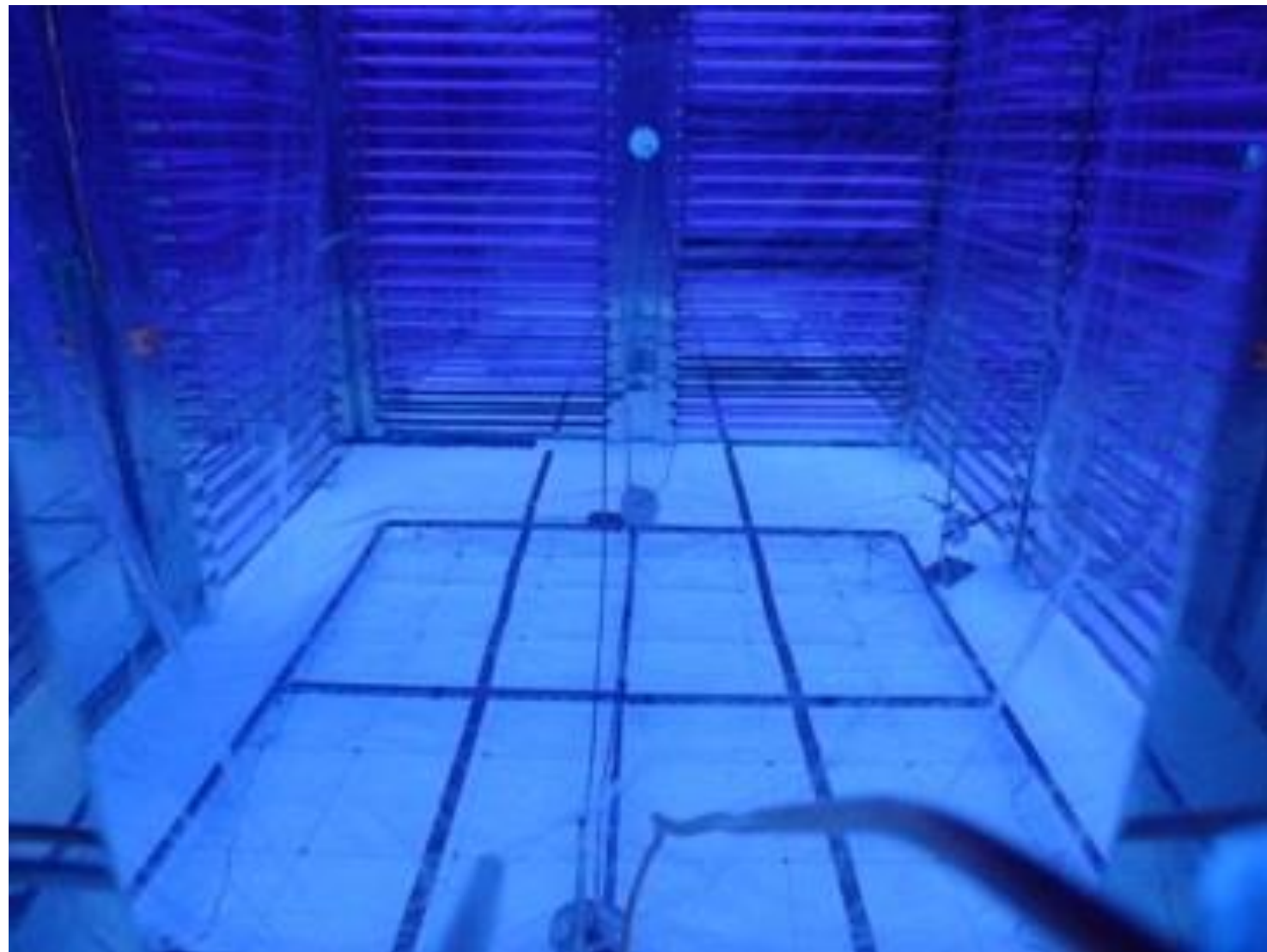
Website address: <https://research.tuni.fi/>;
<https://en.ilmatieteenlaitos.fi/atmospheric-composition>

Services provided:

1. Calibration and audit
2. Deployment to user-defined location

FORTH-MSC, GR

FORTH Mobile Atmospheric Simulation Chamber



Location: Patras, Greece

Website address:

laqs.iceht.forth.gr/en/laqs/research-facilities.html

Services provided:

1. Testing / intercomparisons of new instruments
2. Characterization of sources and their atmospheric evolution
3. Chemical aging experiments for primary and secondary organic aerosol

LACROS, DE

Leipzig Aerosol and Cloud Remote Observations System



Location: Leipzig, Germany

Website address:

<https://www.tropos.de/en/research/projects-infrastructures-technology/coordinated-observations-and-networks/lacros>

Services provided:

1. Instrument Testing & Validation
2. Algorithm Testing & Validation
3. Deployment at user-defined Location
4. Case studies of aerosol-cloud-dynamics-precipitation interactions

USRL, CY

Unmanned Systems Research Laboratory



Location: Nicosia, Cyprus (Workshop)
Orounda, Cyprus (airfield)

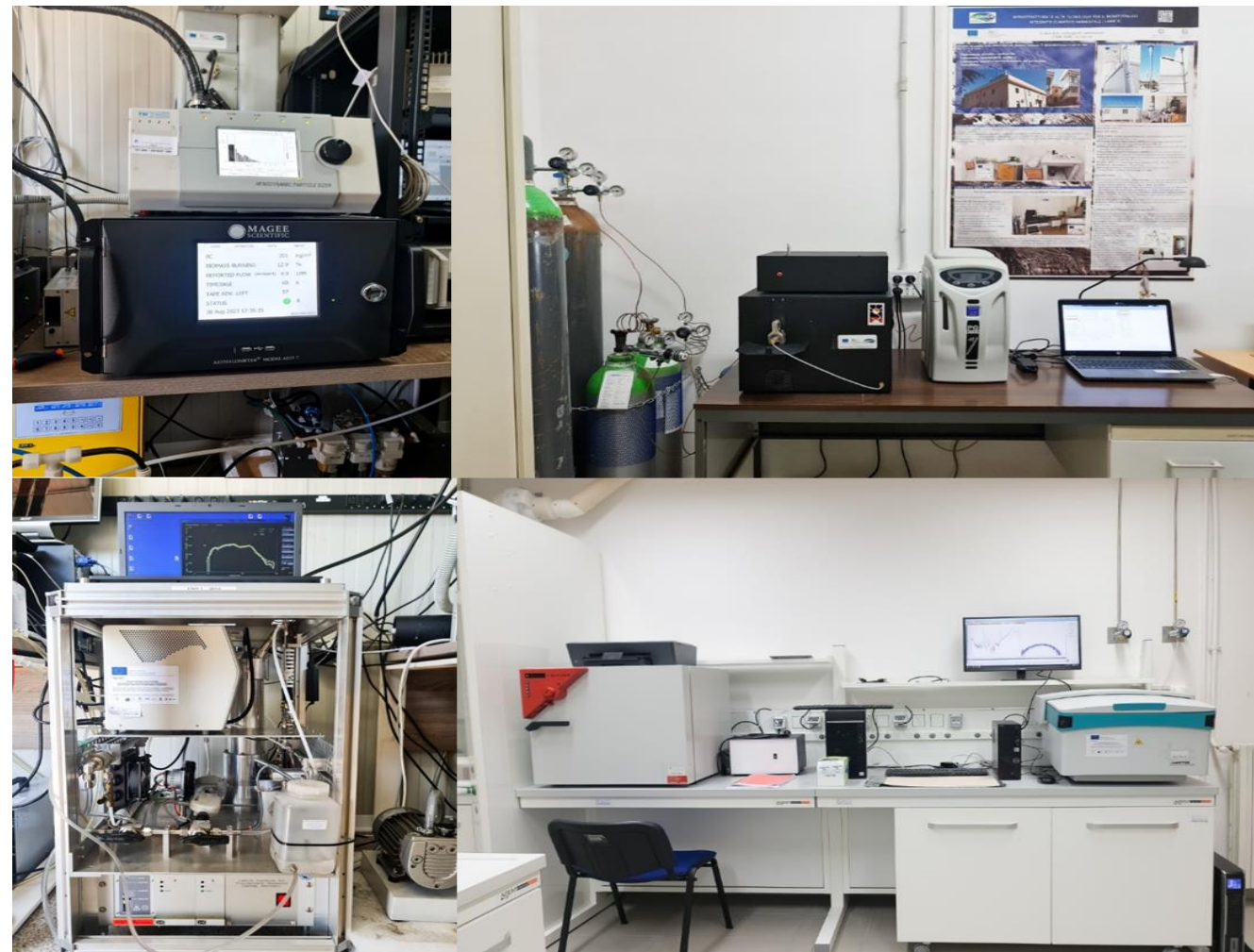
Website address: <https://usrl.cyi.ac.cy/>

Services provided:

1. An instrumentation lab with weather chamber;
2. Specialized mechanic/electronic workshops;
3. A private (asphalt) UAV airfield and permanent private airspace located at 30km west of Nicosia;
4. A team of 8 experienced engineers (electric, electronic, software, system, communication, mechanic/material), 2 professional pilots.
5. Instrumentation.

MAGA, IT

Mobile Laboratory for Gas and Aerosol measurements



Location: Lecce, Italy

Website address: <https://actris.it/lecce-cnr-isac-environmental-climate-observatory/>

Services provided:

1. measurement of optical properties of particulate matter by ethalometer, nephelometer and photometer (sun-lunar);
2. number concentrations and size distributions by SMPS, CPC, OPC and APS;
3. concentrations of gaseous pollutants by analyzers of (NO-NO₂-NO_x, O₃, SO₂, CO).



The Observational platforms



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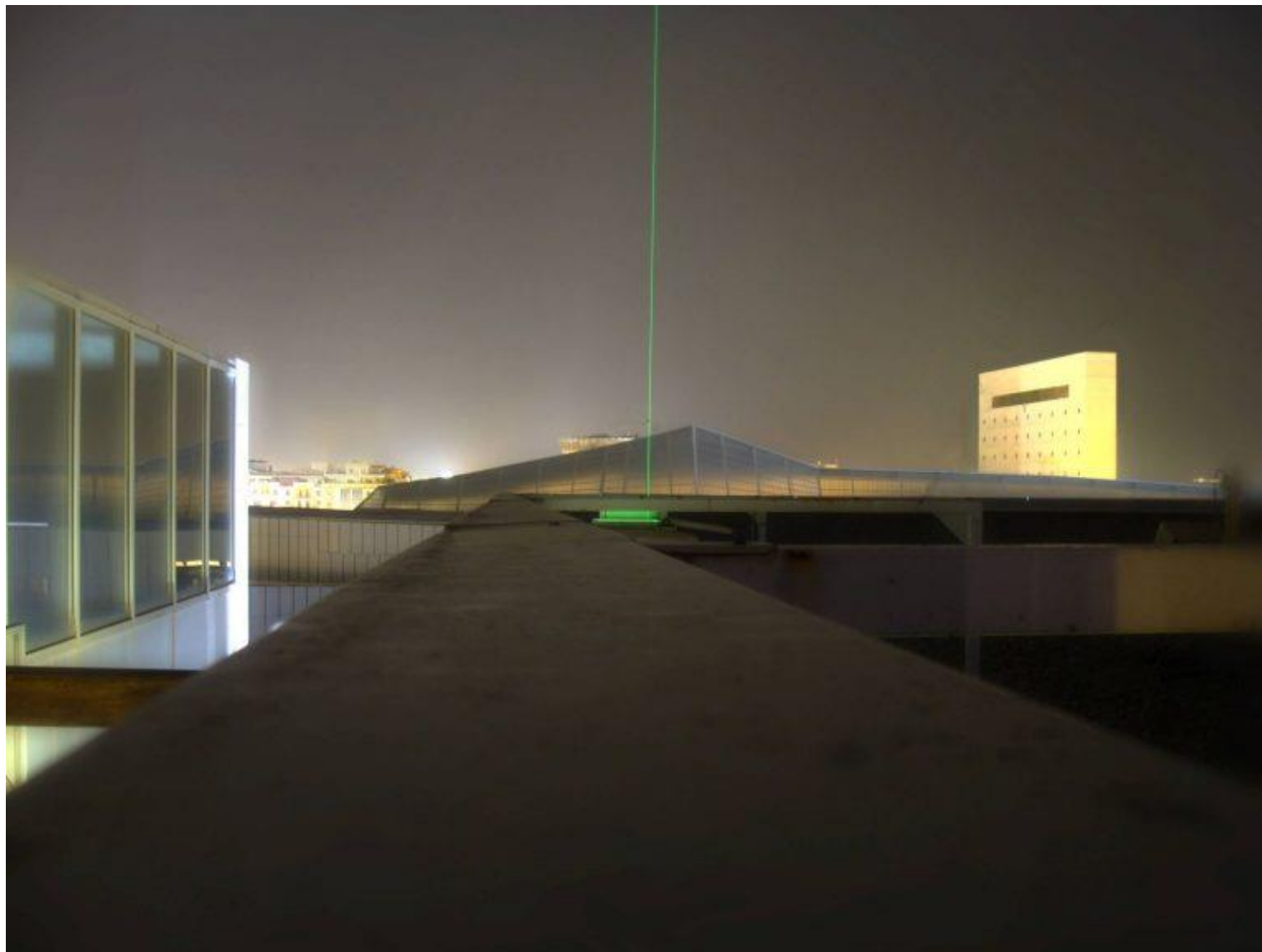


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AGORA, ES

Andalusian Global Observatory of the Atmosphere



Location: Granada, Spain

Website address: <https://atmosphere.ugr.es>

Services provided:

1. Campaigns for Aerosol-Cloud Interaction Research;
2. Experiments for Aerosol-Cloud Interaction Research;
3. Instrument Testing and Intercomparison Campaigns;
4. Young Scientists Training;
5. Training for Companies;
6. Support to private innovation.

ARN, ES

Atmospheric Sounding Station El Arenosillo



Location: Mazagón, Huelva, Spain

Website address: www.inta.es

Services provided:

1. Field Experimental Campaigns for Atmospheric Characterization;
2. Instrument Testing and Intercomparison Campaigns;
3. Service for Training through hands-on-instrument operative and data analysis.

ATMOS, GR AThens MOnitoring Supersite



Location: Athens, Greece

Website

address:

www.ciao.imaa.cnr.it

<http://apcg.meteo.noa>;

<http://www2.ipta.demokritos.gr/DEM-ATH/DEMstation.html>

Services provided:

Training and research activities thanks to state of the art instruments for

1. aerosol in situ
2. aerosol active and passive remote sensing
3. trace gases in site
4. mobile units
5. equipment for greenhouse gases measurements
6. air quality sensors

BCN, ES Barcelona Cluster



Location: Barcelona, Spain

Website address: <https://www.idaea.csic.es/egar/sites/>;
<https://ors.upc.edu>

Services provided:

1. Campaigns for atmospheric chemistry interaction between urban and regional background
2. PTR-MS and PTR-TOF-MS training Service
3. Training for air quality managers and young scientists
4. Instrument Testing and Intercomparison Campaigns
5. Training on Aethalometers (AE33 model)
6. Training on source apportionment tools (Positive Matrix Factorization PMF)

CAO, CY

Cyprus Atmospheric Observatory



Location: Agia Marina Xyliatou, Cyprus

Website address:

<https://www.cyi.ac.cy/index.php/cao.html>

It is a unique infrastructure located in the Middle East and the only EU infrastructure impacted by desert dust from the Arabian Peninsula and impacted by long-range transport of Middle East air pollution.

It is the only EU infrastructure with a co-located facility dedicated to atmospheric profiling with Unmanned Aerial Vehicles (USRL Facility: <http://usrl.cyi.ac.cy>) also part of ATMO-ACCESS.

CESAR, NL

Cabaw Experimental Site for Atmospheric Research



Location: Lopik, the Netherlands

Website address: www.cesar-observatory.nl
www.ruisdael-observatory.nl

Services provided:

1. Methane stable isotope analysis
2. Methane clumped isotope analysis
3. Carbon monoxide stable isotope analysis
4. Hydrogen stable isotope analysis
5. In-situ, column integrated, vertical profiling and spatial atmospheric observations
6. Cloud radar calibration
7. Trace gas remote sensing intercomparison

CIAO, IT CNR-IMAA Atmospheric Observatory



Location: Tito, Potenza, Italy

Website address: www.ciao.imaa.cnr.it

Services provided:

1. Training on Lidar data analysis, SCC and on technical aspects of Lidar systems
2. Intercomparison of Lidar systems at CIAO
3. Access and integration of data using different active, passive and in-situ instruments at CIAO
4. Laboratory characterization of instruments and blocks
5. Testing and building Lidar configurations

CMN-PV, IT Monte Cimone – Po Valley



Location: Monte Cimone, Italy

Website address: <https://atmo-access.isac.cnr.it/>

Services provided:

1. Calibration of chemiluminescence NO_x analyzers (Monte Cimone)
2. Calibration of ozone analyzers (Monte Cimone and Bologna)
3. DOAS measurement facility (S. Pietro Capofiume)
4. Calibration of chemiluminescence analyzers (Monte Cimone and Bologna)
5. In-situ intercomparison for near-surface gas and aerosol analyzers (Monte Cimone, Bologna and S. Pietro Capofiume)
6. Analysis of atmospheric process by in-situ "near-surface" observations at a high mountain site (Monte Cimone)
7. Analysis of atmospheric process by in-situ "near-surface" observations at an urban site (Bologna and S. Pietro Capofiume)

CO-PDD, FR

Cézeaux-Aulnat Opme Puy de Dôme



Location: Clermont-Ferrand, France

Website address:

<http://www.obs.univ-bpclermont.fr/SO/mesures/index.php>

Services provided:

1. It hosts a large number of in situ instruments for the long-term monitoring of atmospheric reactive and greenhouse gases, microphysical and chemical properties of aerosol particles, and clouds in their meteorological context.
2. A wind tunnel allows more particularly the study of ice cloud microphysical properties under natural atmospheric conditions.

CVAO, CV

Cape Verde Atmospheric Observatory

Location: Calhau, Cape-Verde

Website address:

<https://www.tropos.de/en/research/atmospheric-aerosols/long-term-trends-and-process-analysis/long-term-studies-of-global-relevance/long-term-observation-of-aerosol-at-cvao-cape-verde-atmospheric-observatory>

Services provided:

1. In situ chemical and physical as well as remote sensing aerosol, cloud characterisation, and trace gases monitoring activities.
2. Calibration and inter comparison.
3. Precise and comprehensive data collection on atmospheric and oceanic processes.



ENEA-Lampedusa, IT

ENEA Station for Climate Observations on the island of Lampedusa



Location: Lampedusa, Italy

Website address: <https://www.lampedusa.enea.it/>

Services provided:

1. a ground-based Atmospheric Observatory dedicated to the investigation of changes in atmospheric composition and structure, and their effects on the surface radiation.
2. an open sea Oceanographic Observatory, which is an instrumented buoy dedicated to the investigation of air-sea interactions and to ground-truth of satellite observations.

EVASO, PT

EVora Atmospheric Science Observatory



Location: Evora, Portugal

Website address:

<http://www.icterra.pt/g1/index.php/infrastructures/>

The EVASO infrastructure includes an atmospheric science observatory equipped with state-of-the-art instrumentation for aerosol and trace gases active and passive remote sensing as well as several instruments for in-situ aerosol monitoring.

FKL, GR Finokalia



Location: Finokalia, Crete, Greece

Website address: <http://finokalia.chemistry.uoc.gr/>

Observations at FKL are related to ACTRIS: e.g., in situ aerosol characterisation, gas precursors as well as an AERONET station and to ICOS.

FKL is in the southern most point of Europe, with high insolation which favours photochemical activity and fast processing of aerosols.

FMI PAL-SOD, FI

Pallas-Sodankylä Atmosphere-Ecosystem Supersite



Location: Muonio, Finland

Website address: www.fmi.fi

Services provided by Pallastunturi facility (FMI-PAL):

1. Campaigns for investigating the properties of sub-Arctic clouds
2. Measuring atmospheric composition of low concentration-, sub-Arctic air
3. sub-Arctic UAV- base
4. Allergic pollen measurements
5. Instrument inter-comparisons and field calibrations
6. Operation of automated atmosphere super-site and specific instrumentation

Services provided by Sodankylä facility (FMI-SOD):

1. Balloon borne observations

HTM, SE Hyltemossa Research Station

Location: Klippan, Skåne, Sweden

Website address:

http://www.icos-sweden.se/station_hyltemossa.html

HTM carries out continuous measurement of Greenhouse Gases under ICOS, and Aerosol in situ and reactive gases under ACTRIS. Further, wind speed/direction, air temperature and humidity are measured at the same levels as the GHG, air pressure near the ground. The planetary boundary layer height is measured by a ceilometer.

An automatic flask sampler is in place at both stations for measurements of additional atmospheric trace gases from the top level.



ISAF, ES

Izana Subtropical Access Facility



Location: La Orotava, Tenerife, Spain

Website address: <http://izana.aemet.es/>

Services provided:

1. ISAF-Cal Calibration and intercomparison of photometers at IZO
2. ISAF-Obs Atmospheric observations in free-troposphere conditions at IZO

JFJ, CH

High Altitude Research Station Jungfrauoch



Location: Jungfrauoch, Switzerland

Website address: <http://www.hfsjg.ch/jungfrauoch/>

Services provided:

1. Access to services of the high-altitude research station in an environment with frequent occurrence of free tropospheric conditions and clouds
2. Instrument testing and operation in clean environments and under high-altitude (low pressure) conditions

MEL, DE

TROPOS Research Station Melpitz



Location: Melpitz, Germany

Website address:

<https://www.tropos.de/en/research/projects-infrastructures-technology/coordinated-observations-and-networks/tropos-research-site-melpitz>

Services provided:

1. Aerosol physico-chemical properties (ground and vertical)

MHD, IE

Mace Head Atmospheric Research Station



Location: Carna, Galway, Ireland

Website address: www.macehead.org

Services provided:

1. state-of-the-art measurements which underpin and support any kind of work in relation to the atmosphere state, structure and composition. Those measurements comprise of physical, chemical and remote sensing parameters of the lower atmosphere

NAOK, CZ

National Atmospheric Observatory Košetice



Location: Košetice, Czech Republic

Website address: www.actris-ri.cz

Services provided:

1. Measurement and intercomparison of selected aerosol physico-chemical properties (ground and vertical)
2. an open access to the various data sets and following technologies: meteorology: air quality parameters, gaseous mercury, standard air quality measurements; deposition; chemical, physical, and optical properties of aerosols, trace gases: VOCs – canister sampling, High, medium and low volume active air sampling devices for gas and particle phases of the atmosphere; Passive air samplers; Wet deposition samplers.

OPAR, FR

Observatoire de Physique de l'Atmosphère à La Réunion

Location: La Réunion, France

Website address:

<https://osur.univ-reunion.fr/observations/osu-r-stations/opar>

Services provided:

1. Campaigns for Aerosol-Cloud-Trace gases Interaction Research
2. Cal/Val campaigns in support of satellite atmospheric missions

Areas of research include dynamics and chemistry of the troposphere and stratosphere, tropical cyclone formation and intensification, atmospheric exchanges at major interfaces, long-range transport of aerosols and species.





Location: Island of Antikythera, Greece

Website address:

<https://www.noa.gr/research/infrastructure/paggaia/>

Services provided:

1. Instrument Testing & Validation (RS)
2. Algorithm Testing & Validation (RS)
3. Cal/Val experiments in support of satellite atmospheric missions (RS)
4. Provision of near real-time aerosol products for model applications (RS)
5. Aerosol-cloud-radiation campaigns and case studies (RS)
6. Training on lidar data analysis and data systems (RS)
7. Instrument testing (IS)
8. Aerosol and trace gases (IS) measurements
9. Training on in-situ measurements (IS)

RADO , RO

Romanian Atmospheric 3D research Observatory



Location: Magurele, Romania

Website address: <http://environment.inoe.ro>

Services provided:

1. Aerosol-clouds-radiation studies
2. Cal/Val campaigns in support of satellite atmospheric missions
3. Training
4. Deployment of mobile reference aerosol lidar for short-term campaigns
5. Testing of aerosol lidar prototypes

SBO (1/2), AT

Sonnblick Observatory



Location: Salzburg, Austria

Website address: www.sonnblick.net

Services provided:

1. Intercomparison of instruments for cloud in situ, LWC
2. Sampling support
3. Instrument operation
4. Training
5. Cable car profiles
6. Data analysis and preparation
7. Regional to global backwards modelling with ECMWF-FLEXPART model
8. Time-series of atmospheric boundary layer heights derived from ceilometer observations

SBO (2/2), AT Sonnblick Observatory



Location: Salzburg, Austria

Website address: www.sonnblick.net

Services provided:

9. Measurement of boundary layer wind and turbulence profiles
10. Specific weather forecast for Mt. Hoher Sonnblick
11. Climate scenarios for Mt. Hoher Sonnblick
12. Meteorological consulting
13. Avalanche advice and avalanche warning service

SIRTA, FR

Site Instrumental de Recherche par Télédétection Atmosphérique



Location: Plateau de Saclay, France

Website address: <http://www.sirta.fr>

The SIRTA infrastructure supports research on formation mechanisms and chemical processes of gaseous and particulate compounds and all physical processes related to greenhouse gases, aerosols and clouds.

The 2 associated centres of expertise are located in Palaiseau (CCRES) and Gif-sur-Yvette (ACMCC).

It gathers an ensemble of state-of-the-art active and passive remote sensing instruments and in-situ sensors deployed by several research laboratories.

SMEAR Estonia, EE

Station for Measuring Ecosystem – Atmosphere Relations Estonia



Location: Järvselja, Estonia

Website address: <https://smear.emu.ee>

Services provided:

1. Data, research, technical, training, access remote and physical.

SMEAR Estonia supports research on atmospheric composition, forest ecology, forest management, ecosystem-atmosphere interaction and climate change.

SMEAR II, FI

Station for Measuring Ecosystem – Atmosphere Relations II



Location: Juupajoki, Finland

Website address:

<http://www.atm.helsinki.fi/SMEAR/index.php/smear-ii>

SMEAR II supports research on atmospheric composition, forest ecology, ecosystem-atmosphere interaction and climate change.

The observations include detailed in-situ aerosol and ion physical, chemical and optical characterisation, trace gases, greenhouse gases, cloud profiling and aerosol remote sensing instrumentation include sun photometer, ceilometer, lidar, cloud radar, precipitation radar, and microwave radiometer.

WOPAS, PL

Wrocław Observatory Platform for Atmospheric Studies



Location: Wrocław, Poland

Website address: www.meteo.uni.wroc.pl

Services provided:

1. Campaigns for urban air quality
2. Atmospheric boundary layer structure
3. Instrument Testing and Intercomparison Campaigns
4. Allergic pollen measurements
5. Mobile measurements of air quality and meteorological and biometeorological parameters

Location: Warsaw, Poland

Website address:

<https://www.igf.fuw.edu.pl/en/instruments/>

Services provided:

1. Access to facility for tailored experiments and integration of data using different active, passive and in-situ stationary and mobile instruments at WOS
2. Access to facility for new technologies/instrumentation testing and optimization
3. Access to facility for aerosol typing and long-range transport assessment
4. Access to services for urban boundary layer research
5. Access to services for tailored experiment



ARTE, IT

Atmospheric Rome joint Supersite



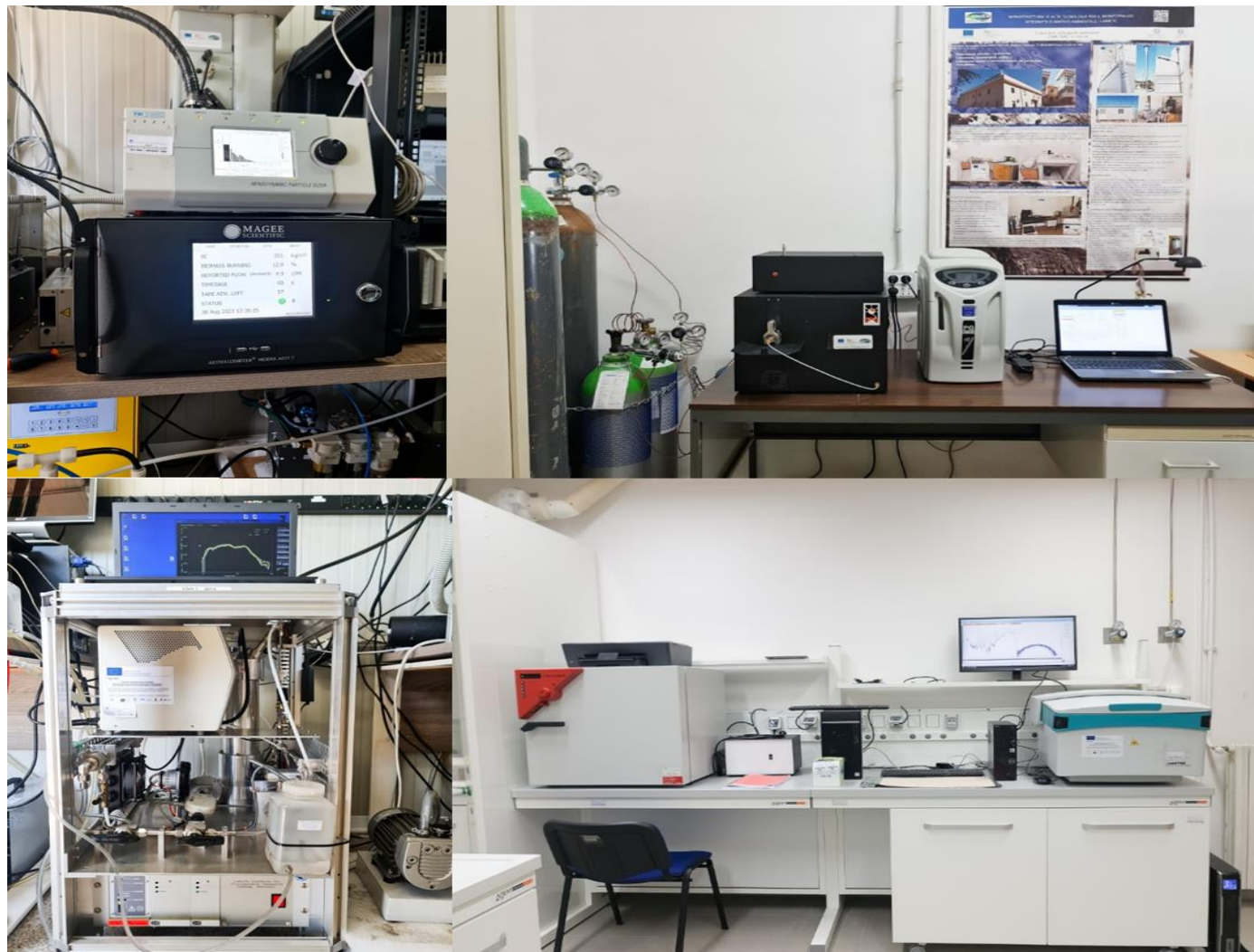
Location: Rome, Italy

Website address: <https://actris.it/ciras-cnr-isac-atmospheric-observatory/>

Services provided:

1. remote sensing from the ground and satellites, measurements of atmospheric composition and precipitation. Lidar, Radar and Sodar instruments developed by ISAC, ISMAR and La Sapienza are used together with advanced commercial instruments.
2. Validated products and/or quick-looks are provided to both national and international networks (e.g. Aeronet, E-Profile, Earlinet, NDACC, Skynet, Alice-net, ArpaLazio-net) and for satellite data validation (e.g. GPM, EarthCare).

ECO (1/2), IT Environmental Climate Observatory



Location: Lecce, Italy

Website address: <https://actris.it/lecce-cnr-isac-environmental-climate-observatory/>

Services provided:

1. gas analyzers and instruments for the characterization of atmospheric particulates;
2. measurement of size distribution and number concentration (MPSS, CPC, APS, NAIS and PSM);
3. collection of filter samples of PM_{2.5} and PM₁₀ and subsequent analysis of OC/EC, elements with ED-XRF, soluble carbon (TOC) content and soluble ion and levoglucosan (IC) content;
4. optical properties of particulate matter using MAAP, aethalometer, two nephelometers, and total carbon analyzer (TCA);

ECO (2/2), IT Environmental Climate Observatory

Location: Lecce, Italy

Website address: <https://actris.it/lecce-cnr-isac-environmental-climate-observatory/>

Services provided:

5. detection of non-refractory components of PM1 using TOF-ACSM;
6. size distribution with two optical particle counters;
7. fluorescence detection on single particles for bioaerosol identification.
8. for atmospheric gas measurements, analyzers are available for NO-NO₂-NO_x, O₃, SO₂, NH₃, N₂O, BTEX; a DOAS detector; a CRD technology analyzer for CO, CO₂, CH₄.

