








The ITINERIS – ACTRIS Access opportunities

Sala Conferenze Area della Ricerca del CNR (Tito Scalo) - February 19, 2025

IR000032 – 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”



-  Opening remarks and ITINERIS overview - *Giuseppe Gargano (CNR-IMAA)*
-  ITINERIS – ACTRIS Pilot access call - *Carmela Cornacchia (CNR-IMAA)*
-  ACTRIS facilities involved in the call - *Francesca Ricciardi (CNR-IMAA)*
-  Focus on French facilities - *Matilde Oliveri (Université Clermont Auvergne)*
-  Q&A

The project at a glance



ITINERIS -Italian Integrated Environmental Research Infrastructures System is a project 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”.

The project is coordinated by the CNR (National Research Council). It started in November 2022, and will continue for 36 months.



Project at a glance



€ 155M INVESTMENT



7 PARTNERS

39 OPERATING UNITS



75 INTERMEDIATE OBJECTIVES

208 DELIVERABLE



8 WORK PACKAGES

89 ACTIVITIES

ITINERIS: Empowering Italy's Environmental Future



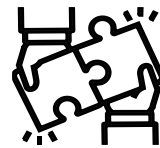
ITINERIS is the Italian thematic network of the environmental Research Infrastructures (RIs) for the observation and study of processes in the atmosphere, marine domain, terrestrial biosphere, and geosphere.

The main goal is to develop the **ITINERIS HUB as the single access point** to the wide range of data, cutting-edge facilities, analytical tools, and services provided by the Italian environmental RIs, breaking down traditional disciplinary silos and promoting a multidisciplinary approach to address critical challenges such as climate change, pollution reduction, biodiversity loss, and ecosystem integrity.



Harmonizing RI
developments

transferring best practices,
standardization of protocols and
enhancing interoperability



Developing cross-
disciplinary actions

combining data and services from the RIs
to generate a system of VREs and new
services for specific research challenges



Defining a common
framework for access

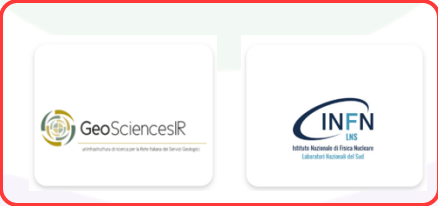
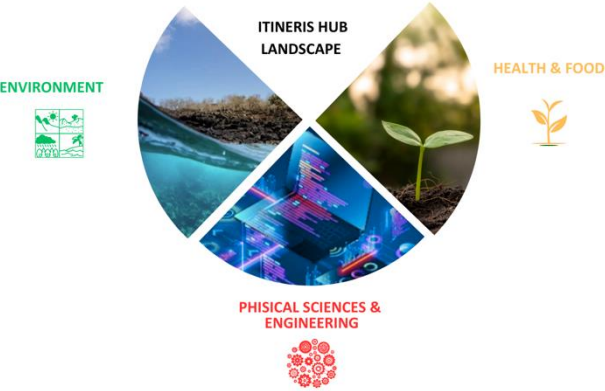
to the whole network of RIs and
promote implementation and adoption
of best FAIR-enabling practices

ITINERIS: A network of excellence



ITINERIS coordinates a network of national nodes from 22 RIs belonging to or relevant for the ENV domain.

Different levels of maturity, ranging from ESFRI Landmarks/Projects, which already deliver services and provide access to data and facilities at EU level, to new EU and national RIs



About ACTRIS

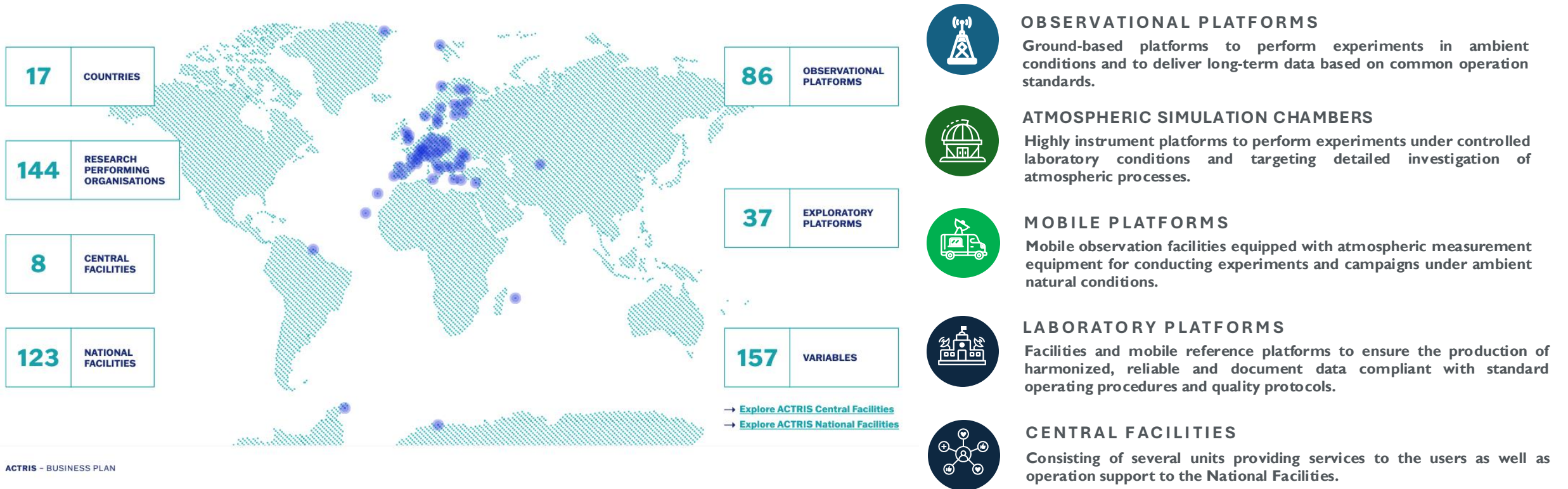
ACTRIS (Aerosol, Clouds and Trace Gases Research Infrastructure) is the pan-European research infrastructure producing high-quality data and services to advance research on short-lived atmospheric constituents and on the processes leading to the variability of these constituents in natural and controlled atmospheres.

These atmospheric constituents have a huge impact on the climate, the quality of the air we breathe, and our health.



ACTRIS facilities

ACTRIS provide researchers with access to a high-class long-term atmospheric data and an extensive network of world-class facilities to measure a wide range of atmospheric variables, study the processes that take place in the atmosphere, and develop new technologies for environmental monitoring








ACTRIS services

Not just facilities, but also a variety of services....

- * Research services: campaigns, experiments, process studies, intercomparisons, observations, scientific exploration
- * Technical services: calibrations, analyses, performance assessment, audits, ...
- * Training services: of young scientist and RI staff on instrument operation, measurement techniques and data processing, good practices
- * Innovation services: instrument testing and development, innovative technologies
- * Data and digital services: tailored data, products, tools



...a complete ecosystem uniting research, innovation, and collaboration!

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ITINERIS – ACTRIS Pilot access call

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Agenda

- 🌐 Opportunities
- 🌐 Conditions & Requirements
- 🌐 Access process
- 🌐 User grant
- 🌐 User Post-Access duties



Opportunities

In the frame of the ITINERIS project the CNR decided to invest part of its available budget into a joint ITINERIS-ACTRIS access programme to **support and facilitate access to**



ACTRIS

What is ACTRIS?

The Aerosol, Clouds and Trace Gases Research Infrastructure (ACTRIS) is the pan-European research infrastructure producing high-quality data and information on size, composition, atmospheric constituents and on the processes leading to the variability of these constituents in natural and anthropogenic atmospheres.

ACTRIS enables free-access to high-class long-term atmospheric data through a single entry point. We offer access to our world-class facilities providing researches, from academia as well as from the private sector, with the best research environments and expertise promoting cutting-edge science and international collaborations.

- ✓ Excellent science
- ✓ Connections & collaborations
- ✓ Interdisciplinary research
- ✓ New knowledge & competencies

Atmospheric observations for societal needs



Climate change

Quantifying the radiation balance of the Earth requires four-dimensional observations short-lived atmospheric constituents



Emissions in industrial hotspots

Monitoring and reducing industrial emissions requires enhanced observations and technological research



Air quality in urban areas

Understanding the impact of air pollution on public health requires knowledge on harmful short-lived constituents



Atmospheric hazards

Reducing societal vulnerability to atmospheric hazards requires actions from hazard identification to emergency management



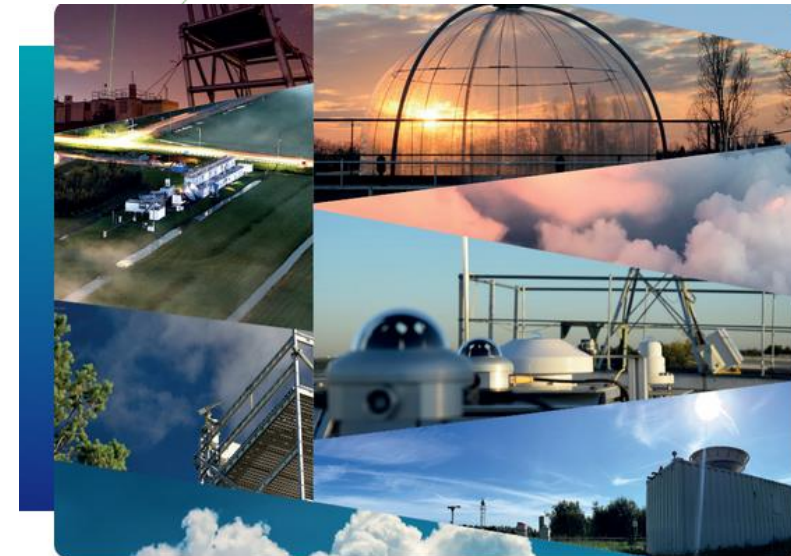
Validation of Earth observations from space

Applying space-borne sensors for Earth observations requires fiducial reference measurements from ground



Evaluation of models and data assimilation

Predicting weather and climate requires observations with a high level of precision, coherence and integration

ACTRIS

ITINERIS – ACTRIS Pilot Access Call



About - ITINERIS HUB - News & Events - Contact

Empowering Italy's Environmental Future

ITINERIS is dedicated to building the Italian Hub of Research Infrastructures in the environmental scientific domain.

[Learn more >](#)



About - ITINERIS HUB - News & Events - Contact

[Home](#) » [Events](#) » ITINERIS – ACTRIS Pilot Access Call

ITINERIS – ACTRIS Pilot Access Call

ITINERIS is excited to announce the launch of the **ITINERIS – ACTRIS Pilot Access Call** for proposals to access to offer enhanced access to Europe's most advanced facilities for observation and exploration of the atmosphere to users, as part of our ongoing commitment to support innovative research in the environmental sciences.

This pilot call aims to facilitate access to advanced data, cutting-edge instruments, and services offered by ACTRIS facilities to promote research in the atmospheric domain and also in all other environmental domains with project idea for which atmospheric data is a prerequisite.

We invite proposals for novel and unconventional use of our facilities!

What does 'access' cover?

The call is open to:

- Italian users willing to access ACTRIS facilities, and to foreign users willing to access the Italian ACTRIS facilities.
- foreign users interested in accessing the Italian ACTRIS facilities.

Key Information:

- **Application deadline:** 31st March 2025
- **Review:** upon submission
- **Access period:** starting from the approval – to be concluded by 31st July 2025.
- **Topic:** general call. No topic restriction and researchers from multidisciplinary projects are encouraged to apply.
- **Financial support to users:** Users will receive a one-off grant after the access successfully completed. Researchers from different disciplines are encouraged to apply.

Proposals should be submitted [via the PASS platform \(Platform for managing user access to ACTRIS Services\)](#), where submission guidelines and full details are available.

We encourage researchers to submit applications early for timely consideration.

For further assistance or inquiries, please contact our team at samu.imaa@cnr.it.

We look forward to receiving your innovative proposals and supporting your research through this exciting opportunity!

In the spotlight

ITINERIS – ACTRIS Pilot Access Call



The ITINERIS - ACTRIS Access Pilot Call

Deadline for application March 31, 2025
Review starts upon reception

[Read more >](#)

<https://itineris.cnr.it/events/itineris-actris-access-pilot/>

Conditions/requirements

- **Eligibility:**

- Access of Italian users to ACTRIS facilities accepting to participate.
- Access of foreign users to the Italian ACTRIS Facilities.

- **Budget available:** up to **500 K€** for:

- Paying for services of the requested facilities
- Contributing to user travel and subsistence costs
- ACTRIS ERIC management costs (SAMU costs co-funded by Italy)

- **Important dates:**

- Last applications received by: **31 March 2025**
- Access at the facility is to be concluded by **31 July 2025**

ITINERIS – ACTRIS ACCESS process



Request for access



The User submits an application through PASS (https://passactris.smapply.io/prog/itineris_actris_pilot_access_call/)

Eligibility check

The request is checked by SAMU to ascertain compliance to the call's specific eligibility criteria. Ineligible proposals will be rejected at this stage and will not continue to the next phases



02

01

Rejection

No

No

Yes

Feasibility check



The access request is transmitted to the access providers to check availability of services, scientific and technical feasibility and timing.

Yes

Yes

Selection

Ad hoc access evaluation panels of ITINERIS and ACTRIS experts are established to perform the selection, with different assessment criteria (for excellence-driven access, technical/training need-driven access, for market-driven access)



04

No

Yes

Feedback to/from User

In case experts have queries or raise issues regarding a proposal, the User has the right to reply correcting inaccuracies or providing any necessary further information

Rejection

No

Yes

05

Request accepted



The access request is to be accommodated by the access provider

ACTRIS PASS - Platform for managing user access to ACTRIS Services

ITINERIS - ACTRIS Pilot Access National Programme

The ITINERIS - ACTRIS Pilot National Access Program supports access projects to leading European atmospheric research facilities to conduct excellent research and test out new theories, ideas, or instruments.

Access will be provided in the framework of the ITINERIS project to:

- Italian users willing to access European ACTRIS facilities and
- foreign users willing to access the Italian ACTRIS facilities.

Young researchers, scientists who have never used atmospheric facilities in their research before, companies and private sector users are particularly welcome. ITINERIS and ACTRIS promote gender equality in scientific research and specifically encourage applications from women.

All ideas are welcome!

Applications will be processed as received, and scientifically and technically **evaluated** by an international peer-review ad-hoc panel composed of ITINERIS and ACTRIS experts in the field considering **scientific excellence, technical merit, innovation and market-driven aspects**.

The call will be open until March 31, 2025. Access projects will have to be completed at the facilities by 31 July 2025.

APPLY

Opens

Sep 16 2024 17:00 (CEST)

Deadline

Mar 31 2025 17:00 (CEST)

Categories

ITINERIS-ACTRIS

Where to apply

(https://passactris.smapply.io/prog/itineris_actris_pilot_access_call/)

User group grant amount calculation

1. **Based on flat rates for Travel** (variable depending on the distance travelled) **and Subsistence** (variable depending on the country where the access takes place)
2. **Preliminary calculation** based on the information in the Application form, **included in the award letter** → by SAMU
3. **Actual amount of the grant:**
 - determined **based on** the information in the **provider's confirmation of access** → by SAMU
 - **disbursed** to the user group **by the ACTRIS ERIC after the access**

Distance band (in km)	Amount per return trip in EUR
400-600	245
601-800	261
801-1200	276
1201-1600	288
1601-2000	369
2001-2500	429
2501-3500	541
3501-4500	659
4501-6000	796
6001-7500	900
7501-10000	1 201
10001-max	1 376

Country	Daily grant (€)
Austria	228
Belgium	239
Bulgaria	167
Croatia	179
Czechia	177
Cyprus	208
Denmark	282
Estonia	187
Finland	259
France	268
Germany	216
Greece	189
Hungary	169
Ireland	247
Italy	212
Latvia	168
Lithuania	163
Luxembourg	261
Malta	229
Netherlands	236
Poland	170
Portugal	192
Romania	171
Slovakia	172
Slovenia	197
Spain	205
Sweden	275
United Kingdom	276

(Commission Decision C(2021)35)

User Post – Access Duties

- Final Activity Report
- Feedback Questionnaire



ITINERIS – ACTRIS Pilot Access Programme

ACCESS FINAL ACTIVITY REPORT

Name and First Name:

Access project title and acronym:

Facility/ies accessed:



ITINERIS - ACTRIS Access User feedback	
User group LEADER	Name & Surname
Access title and acronym	
Facility/ies accessed	
Evaluate the ACCESS services provided	
Please assess the following points rating them on a scale from 'very poor' to 'very good': (0 = very poor, 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent).	
Publicity and information about the access opportunities	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Practical information on how to apply (guidelines, FAQs, documentation)	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Application form (length, information required, easiness)	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Interaction with and support by the TA Team	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Duration of the selection process	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Post-access duties	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Please indicate any comments or suggestions on the ACCESS SERVICES	
Please evaluate the FACILITY/IES' SERVICES <i>Leave blank when the point is not applicable</i>	
Information and support for organizing the access	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5



The ITINERIS – ACTRIS Access Pilot Call Facilities Involved



Finanziato
dall'Unione europea
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Ministero
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e della Ricerca



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Type of Services provided



Research services

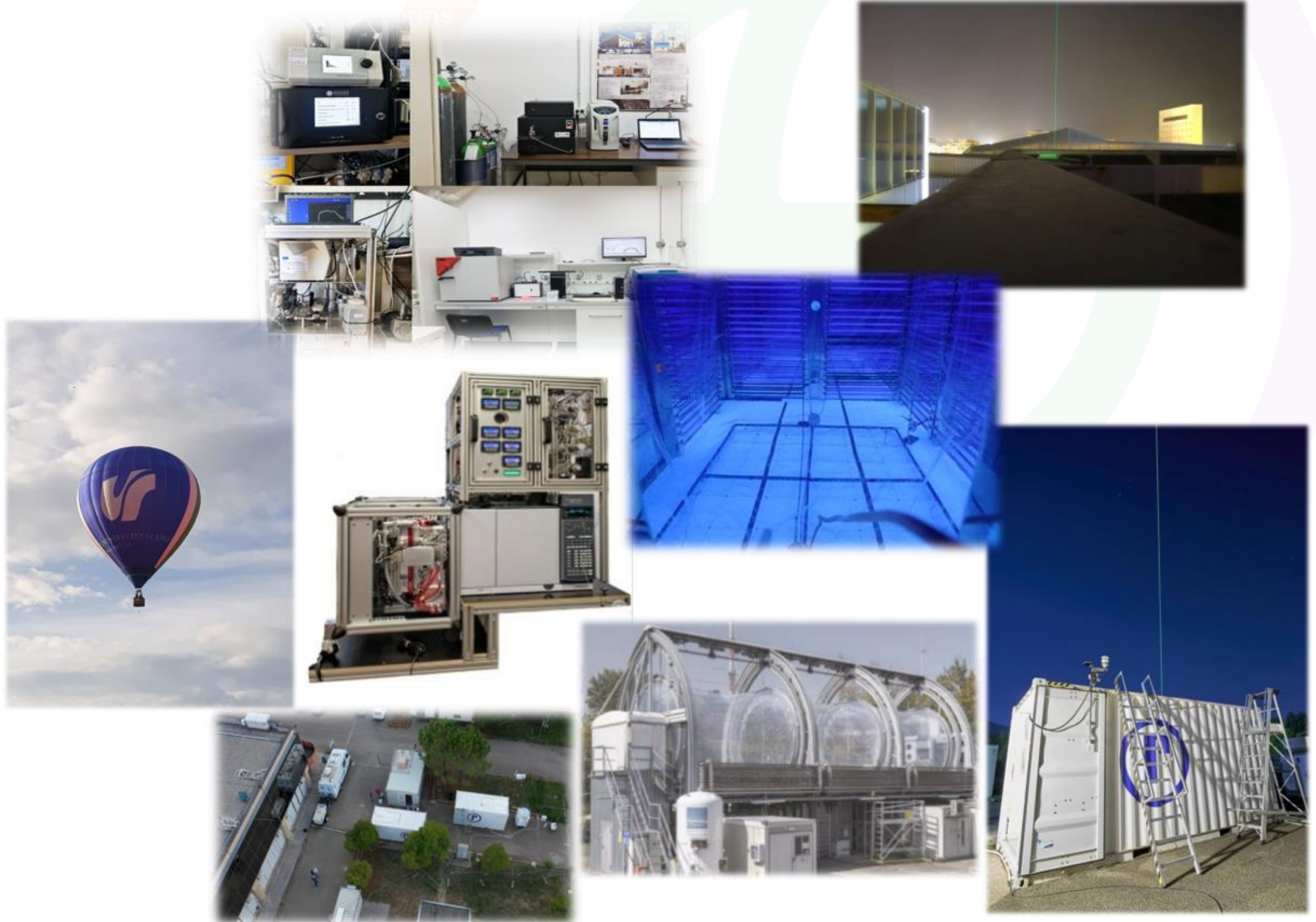
- Instrument Testing
- Experimental campaigns
- Access & integration of data
- Analysis of atmospheric process
- Measuring atmospheric composition

Training services

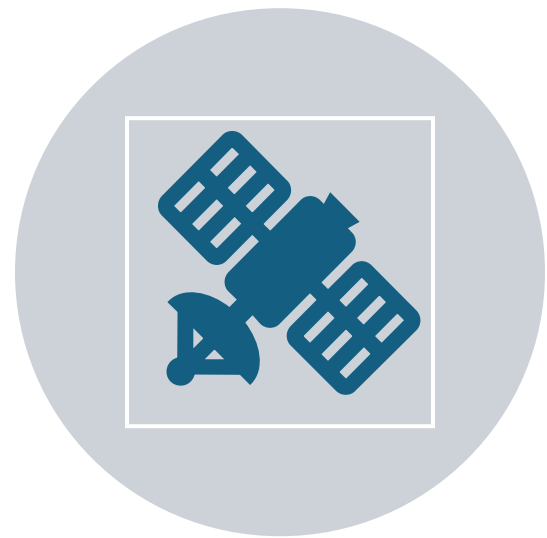
- Training with Expert support
- Educational services
- Training of instruments

Technical services

- Calibration
- Configurations
- Instrument Testing & Validation
- Balloon observations



The ITINERIS ACTRIS Pilot Access Call offers access to the following facilities:

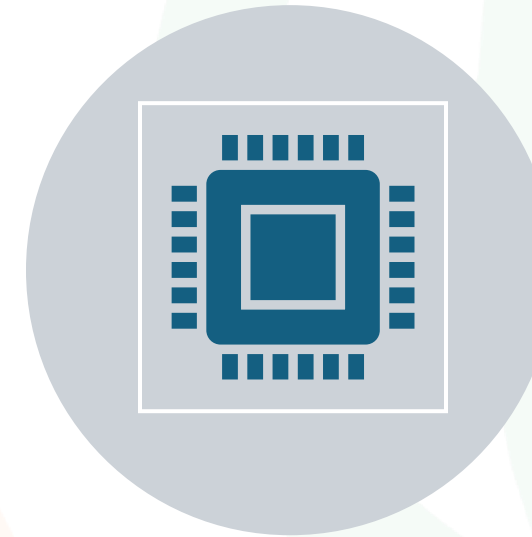


● **Observational Platforms
(31)**



● **Mobile Platforms
(7)**

62



● **Atmospheric
Simulation
Chamber (14)**



● **Central
Laboratories (10)**

The Observational Platforms



Observational Platforms are fixed ground-based stations delivering long-term high-quality data on a regular schedule and common operation standards by applying state-of-the-art remote-sensing and in situ measurement techniques.



ATMOS-NOA

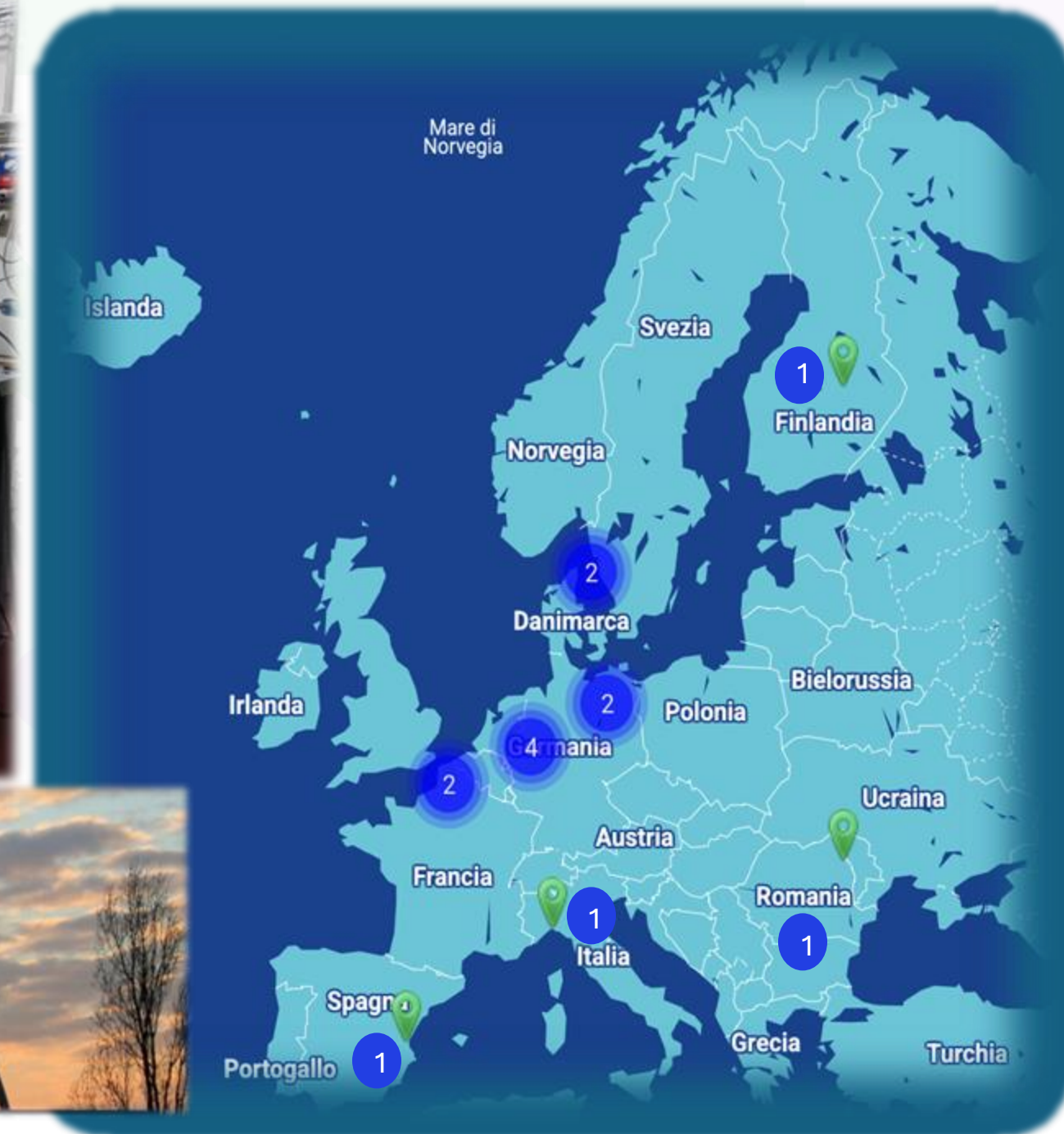


ATMOS-NCSR-D



The Atmospheric Simulation Chambers

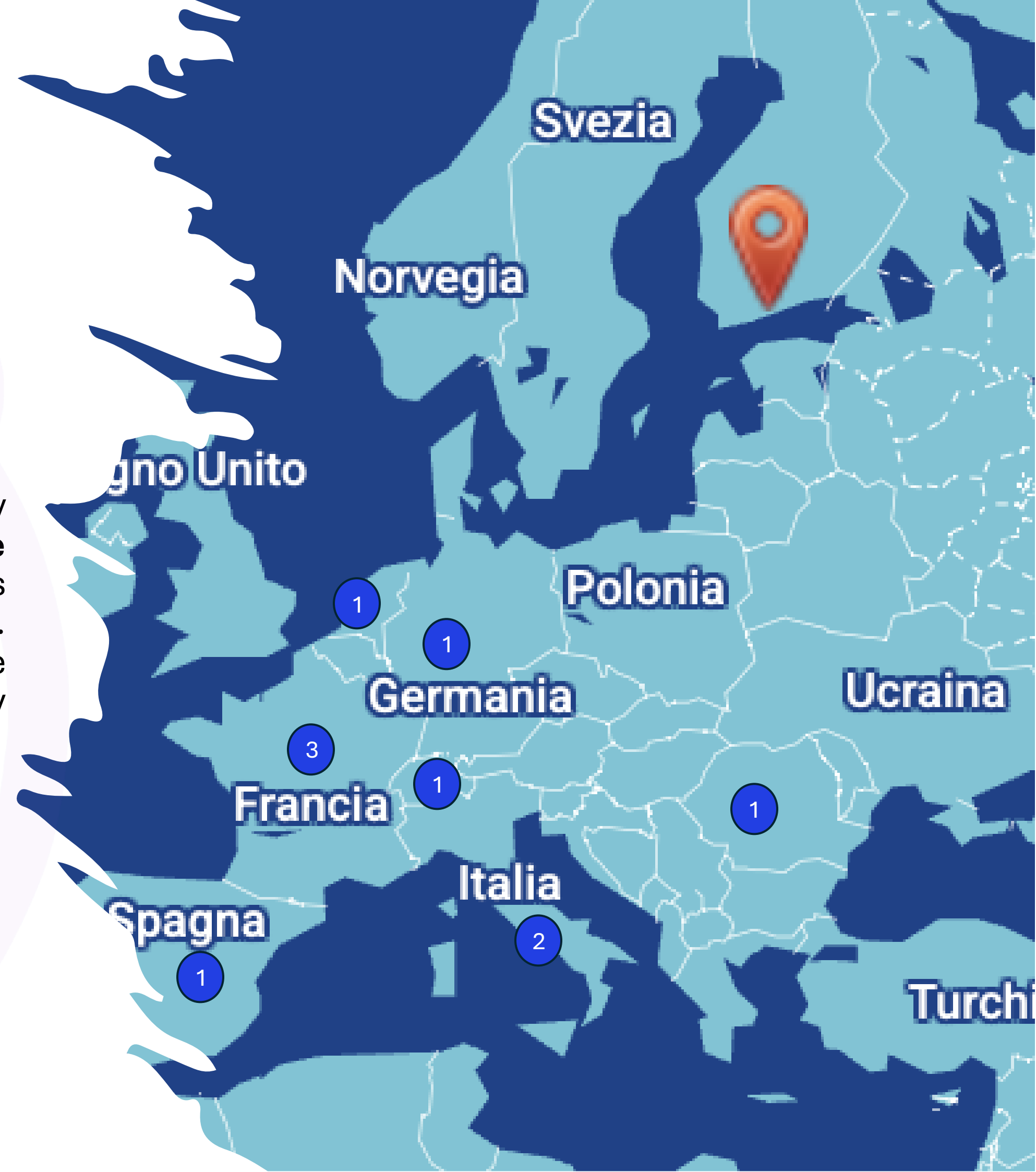
Atmospheric simulation chambers are used to perform dedicated experiments under controlled conditions



The Central Laboratories



The **Central Laboratories** have a fundamental role as they **provide services** to the as well as **operation support to the National Facilities** (NFs) to increase their performance as well as participate in ACTRIS governance and management. Each CL may have several operational Units that can be situated in the same or different locations and are operated by research-performing organizations (RPOs) or by ACTRIS ERIC.



The Mobile Platforms

Mobile platforms comprise land-based, shipborne and airborne facilities, and thus, allow investigations of various processes under specific meteorological, climatic, or topographic conditions in different environments and ecosystems.



Website

<https://itineris.cnr.it/events/itineris-actris-access-pilot/>

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- Financial support to users:** Users will receive a one-off grant after the access successfully completed. The final amount of the grant will be calculated after the access is completed at the facility and disbursed by the ACTRIS ERIC following the provider's confirmation of access. The grant is assigned exclusively to individuals, not to institutions, and will be disbursed directly to the user group leader. The user group leader will then be responsible for distributing the grant among the group members. Researchers from different disciplines are encouraged to apply.

Proposals should be submitted via the **PASS platform** (Platform for managing user access to ACTRIS Services), where submission guidelines and full details are available.

We encourage researchers to submit applications early for timely consideration.

For further assistance or inquiries, please contact our team at samui@itineris.cnr.it.

We look forward to receiving your innovative proposals and supporting your research through this exciting opportunity!



Facilities

Atmospheric simulation chambers	Central Laboratories	Mobile Exploratory platforms	Observational platforms
ACD-C / LACIS-T, DE AIDA, DE AURA, DK CESAM, FR ChAMBRe, IT ESC-Q-UAIC, RO EUPHORE, ES HELIOS, FR IASC, IE KASCs, FI MAC, UK PACS-C2, CH QUAREC, DE SAPHIR, DE	ACMCC SIRTa, FR CARS-ASPFR CARS-CNR CIAO, IT CARS-ES ISAF, ES CARS-RO RADO, RO CCIce AIDA, DE CCRES-FR SIRTa, FR CCRES-NL CESAR, NL CIGAS-CH, CH EMC2-LABEC, IT	AMP, PL CIAO – MOBILE, IT FCoMLab, FI (ATMo-Lab e CMLab) FORTH-MSC, GR LACROS, DE USRLCY MAGA, IT	AGORA, ES ARN, ES ATMOS, GR BCN, ES CAO, CY CESAR, NL CIAO, IT CMN-PV, IT CO-PDD, FR CVAO, CV ENEA Lampedusa, IT EVASO, PT FKL, GR FMI PAL-SOD, FI HTM, SE ISAF – (IZO), ES JFJ, CH Melpitz, DE MHD, IE NACK, CZ OPAR, FR PANGEA, GR RADO, RO SBO, AT SIRTa, FR SMEAR Estonia, EE SMEAR II, FI WOPAS, PL WOS, PL ARTE, IT (RMR) ECO, IT



French facilities participating in the ITINERIS – ACTRIS Pilot Access Call



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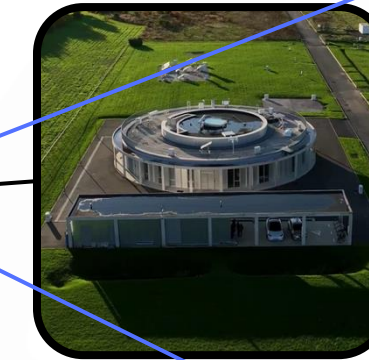
CARS - Lille



CESAM - Paris



ACMCC



SIRTA
Plateau de Saclay



CCRES






HELIOS - Orléans



CO-PDD -
Clermont Ferrand



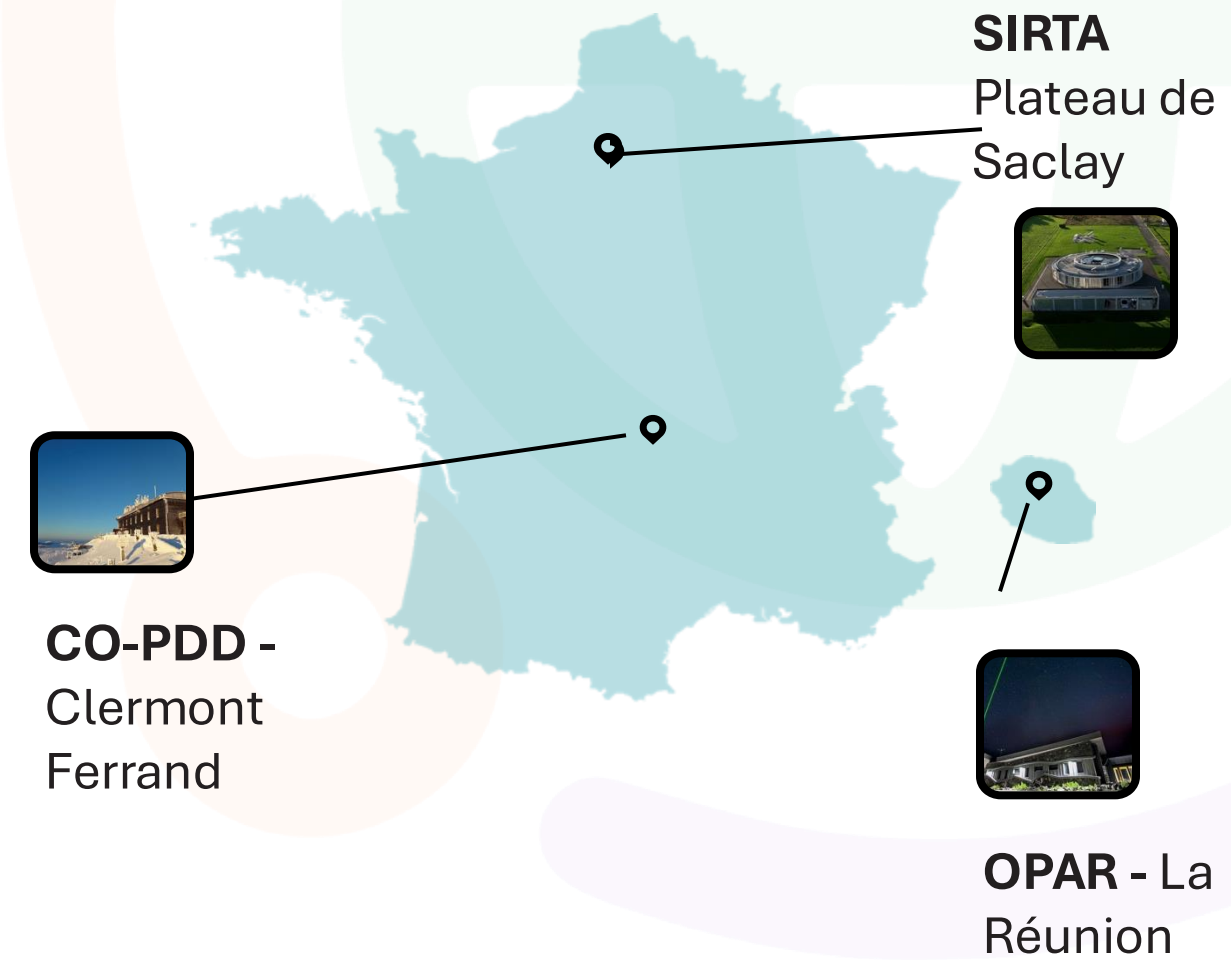
OPAR - La Réunion

-  Observational platforms
-  Simulation chambers
-  Central laboratories





The observational platforms



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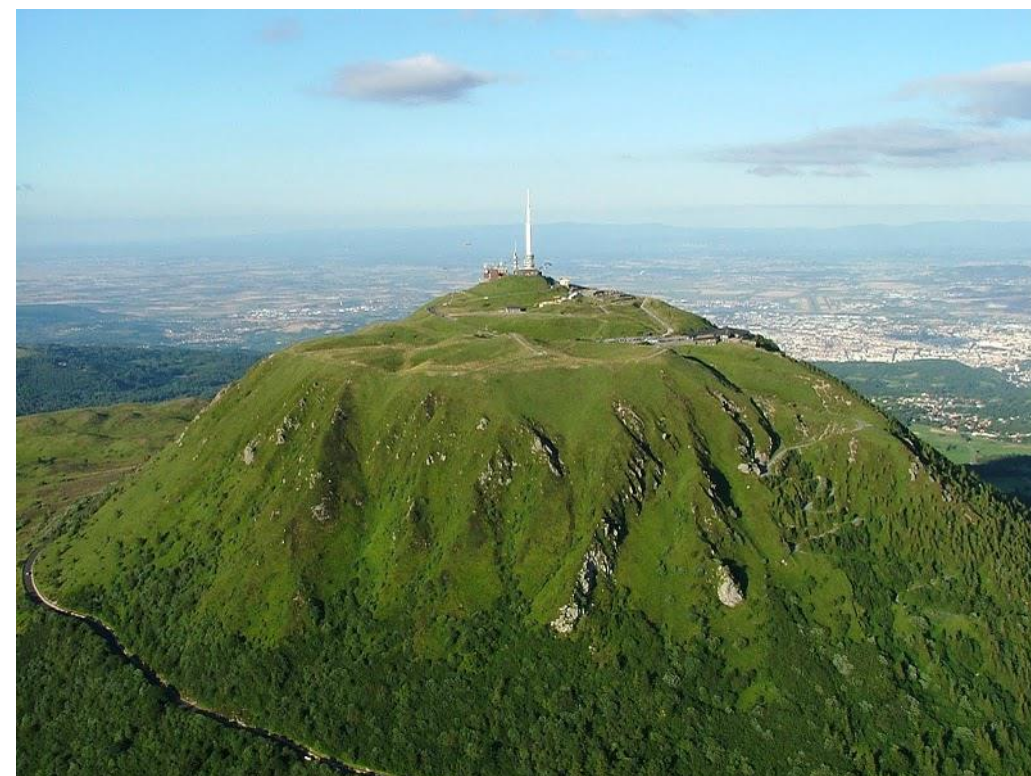


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CO-PDD

Cézeaux-Aulnat Opme Puy de Dôme



Location: Clermont Ferrand, France

Website: <https://opgc.uca.fr/co-pdd>

Main contact: Jean-Luc Baray, Laurent Deguillaume

In brief: A unique site for the long-term monitoring of atmospheric reactive and greenhouse gases, microphysical and chemical properties of aerosol particles, and clouds in their meteorological context.

Services:

- Logistical and scientific support for hosting instruments for:
- specific measurement campaigns
 - instrument testing and intercomparison for both scientific and industrial scopes

OPAR

Observatoire de Physique de l'Atmosphère à La Réunion



Location: La Réunion island, France

Website: <https://www.osureunion.fr/en/observation-stations/opar/presentation/>

Main contact: Joël Van Baelen

In brief: very multidisciplinary facility. Areas of research include dynamics and chemistry of the troposphere and stratosphere, tropical cyclone formation, atmospheric exchanges at major interfaces (ocean, biosphere, upper troposphere and lower stratosphere), long-range transport of aerosols and species

Services:

- Measurement campaigns (for Aerosol-Cloud-Trace gases interaction, cal/val campaigns in support of satellite atmospheric missions)
- Training
- Instrument testing and intercomparisons

SIRTA

Site Instrumental de Recherche par Télédétection Atmosphérique



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

Website: www.sirta.ipsl.fr

Main contact: Martial Haeffelin

In brief: 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.

Services:

- Measurement campaigns (for Aerosol-Cloud-Trace gases interaction, cal/val campaigns in support of satellite atmospheric missions)
- Training
- Instrument testing and intercomparisons



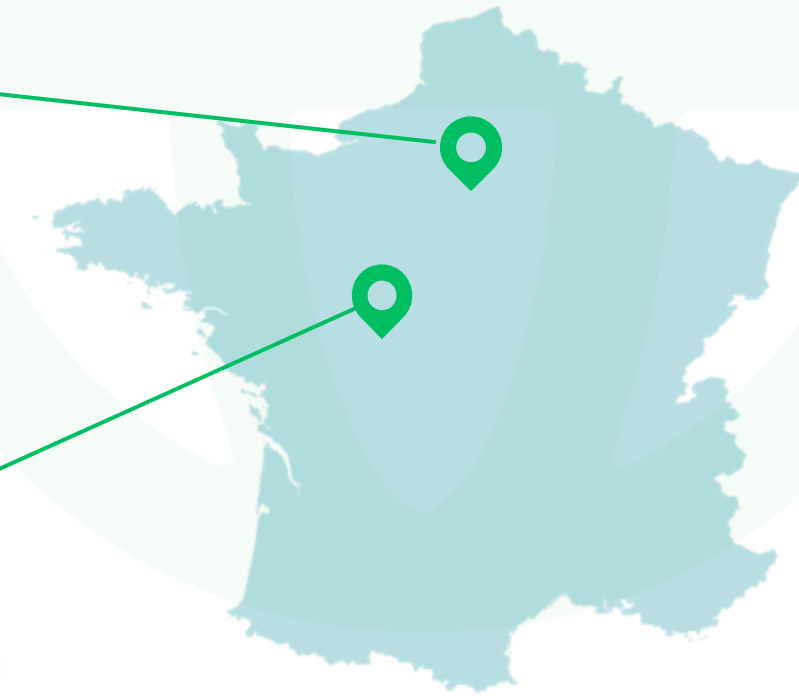
The atmospheric simulation chambers



CESAM - Paris



HELIOS - Orléans



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CESAM

Experimental Multiphase Atmospheric Simulation Chamber



Location: Paris, France

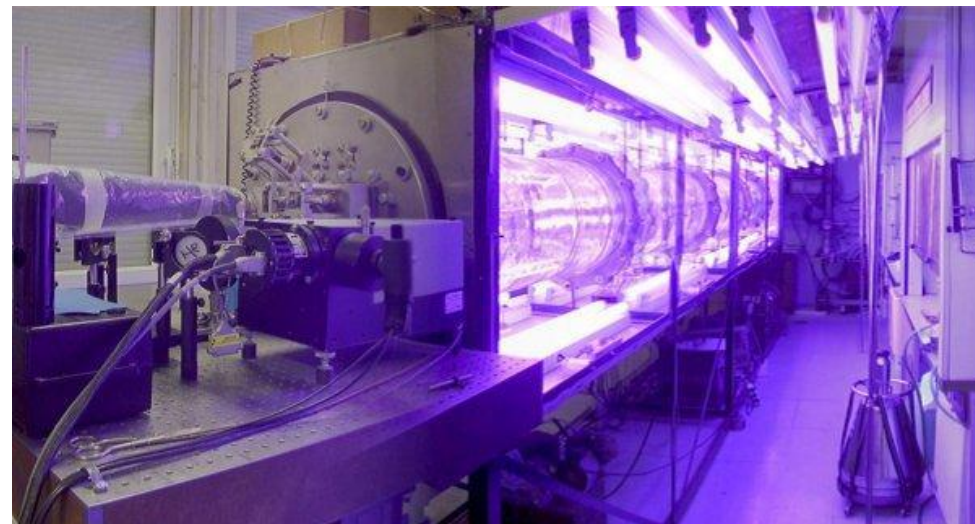
Website address: <http://cesam.cnrs.fr>

Main contact: Bénédicte Picquet-Varrault

In brief: the CESAM chamber is a unique research infrastructure to investigate multiphase atmospheric processes including SOA formation, aerosol aging, cloud chemistry, etc

Services:

- Research on tropospheric multiphase processes under controlled conditions
- Investigation of kinetics and mechanisms of gas-phase reactions
- Instrumentation testing, intercomparisons
- Research on aerosol optical properties
- Research on health impact of air pollution through exposition of living organisms



HELIOS

Outdoor Atmospheric Simulation Chamber of Orléans



Location: Orléans, France

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

Main contact: Véronique Daële

In brief: outdoor-indoor atmospheric simulation chambers, especially suited to investigate the chemical processes under realistic atmospheric conditions.

Services:

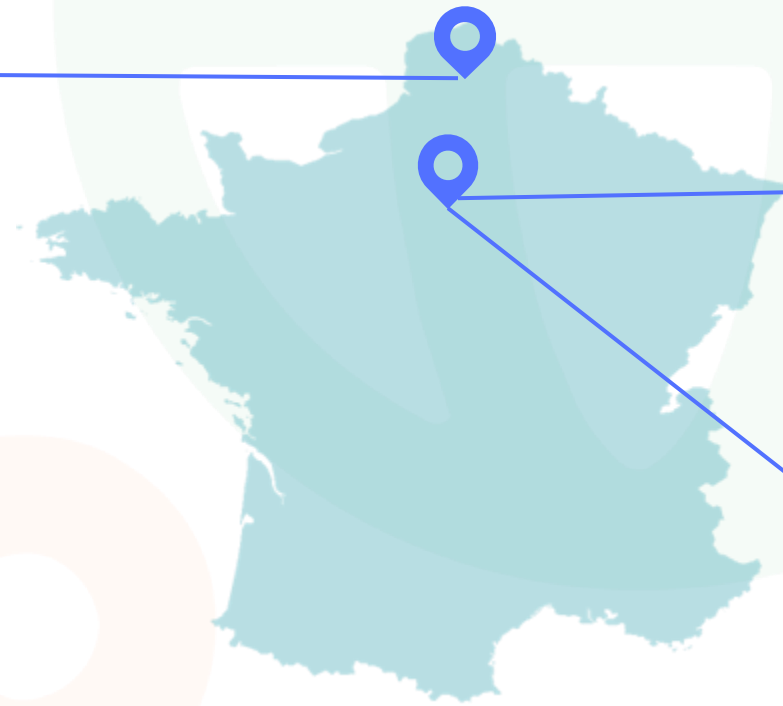
- investigation of the gas phase processes and radical chemistry under different conditions (sunlight and dark)
- instrument development, testing and intercomparison



The Central Laboratories



CARS - Lille



ACMCC – Plateau de Saclay



CCRES - Plateau de Saclay



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ACMCC SIRTA

Aerosol Chemical Monitor Calibration Centre - France



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

Website: <https://acmcc.aeris-data.fr/>

Main contact: Jean-Eudes Petit, Olivier Favez

In brief: the French unit of the ACTRIS Centre for Aerosol In Situ measurements

Services provided: 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.

CCRES-FR SIRTA

ACTRIS Centre for Cloud Remote Sensing – France



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

Website: <https://www.actris.eu/topical-centre/ccres>

Main contact: Martial Haeffelin

In brief: the French unit of the ACTRIS Centre for Cloud Remote Sensing

Services:

- providing support to derive vertical profiles of cloud macrophysical and microphysical properties and related atmospheric variables
- field campaigns, instrument testing, data analysis and training of young scientists

CARS-ASP

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



Location: Lille, France

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

Main contact: Philippe Goloub

In brief: French unit of the ACTRIS Centre for Aerosol Remote Sensing, responsible for the QA/QC of the automatic sun/sky/lunar photometer measurements

Services:

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. mobile photometry for users willing to upgrade their photometer for mobile (e.g., maritime) observation capabilities





Laboratory simulations of cloud processing of wildfire smoke in CESAM

Partners involved: CNRS (France) and University of San Diego (USA), in the framework of the access programme of the ATMO-ACCESS project (H2020)

Objectives:

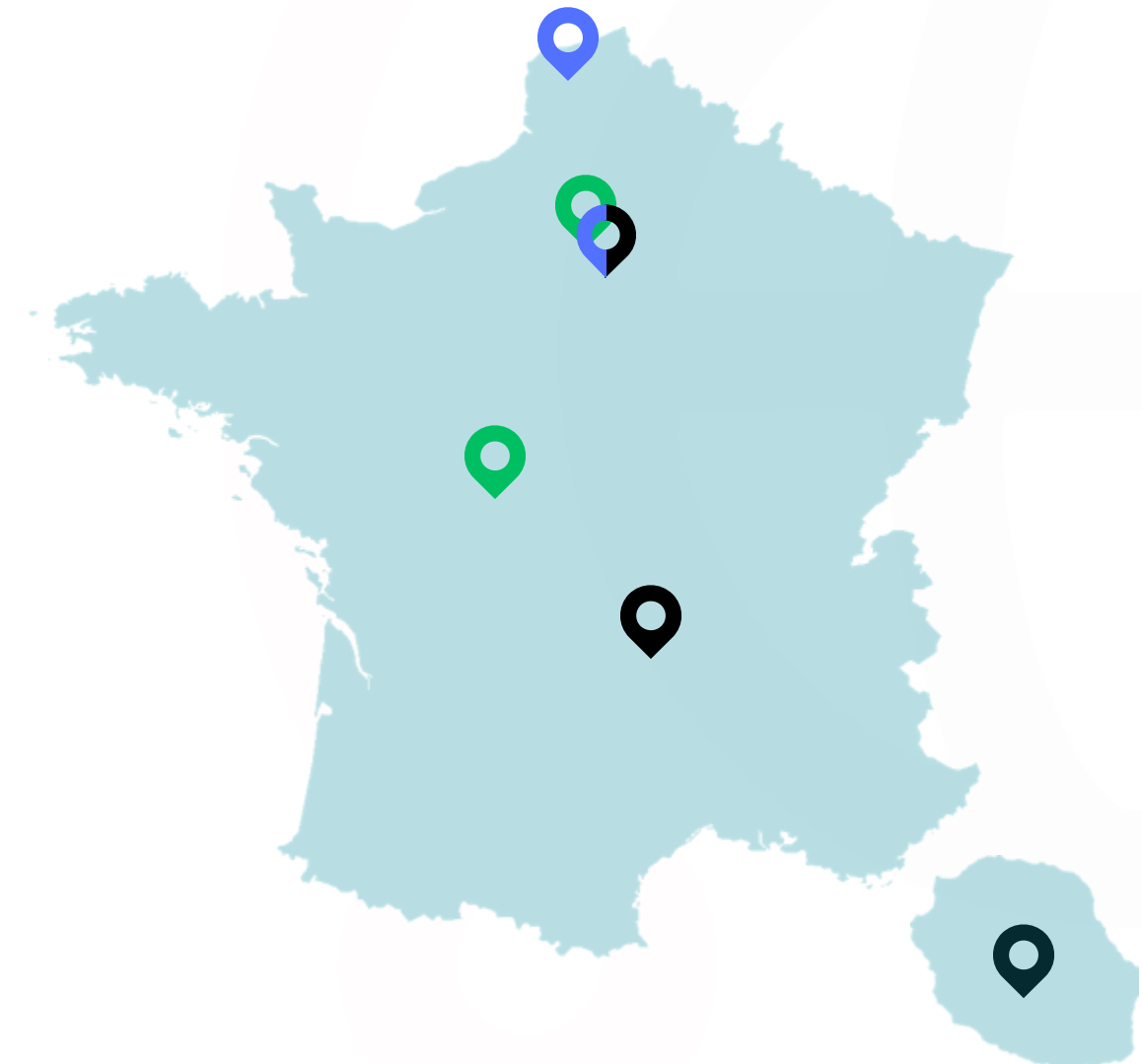
- 1) Quantify and compare effects of dry aging and cloud processing (with a variety of atmospheric oxidants) on secondary organic aerosol (SOA) formation and light absorption in smoke fractions and whole smoke samples
- 2) Quantify and compare effects of dry aging and cloud processing on smoke aerosol water uptake and the semi-solid / liquid phase transition

Workplan:

- pyrolyze small biomass samples at 400 C in a tube furnace
- send the resulting smoke into the CESAM chamber, in specific reproduced atmospheric conditions
- Smoke was sampled before and after simulated pyrocumulus cloud processing to determine changes in chemical, physical, and optical properties using several techniques



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THANKS!

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