ACTRIS IT: il ruolo delle infrastrutture di ricerca

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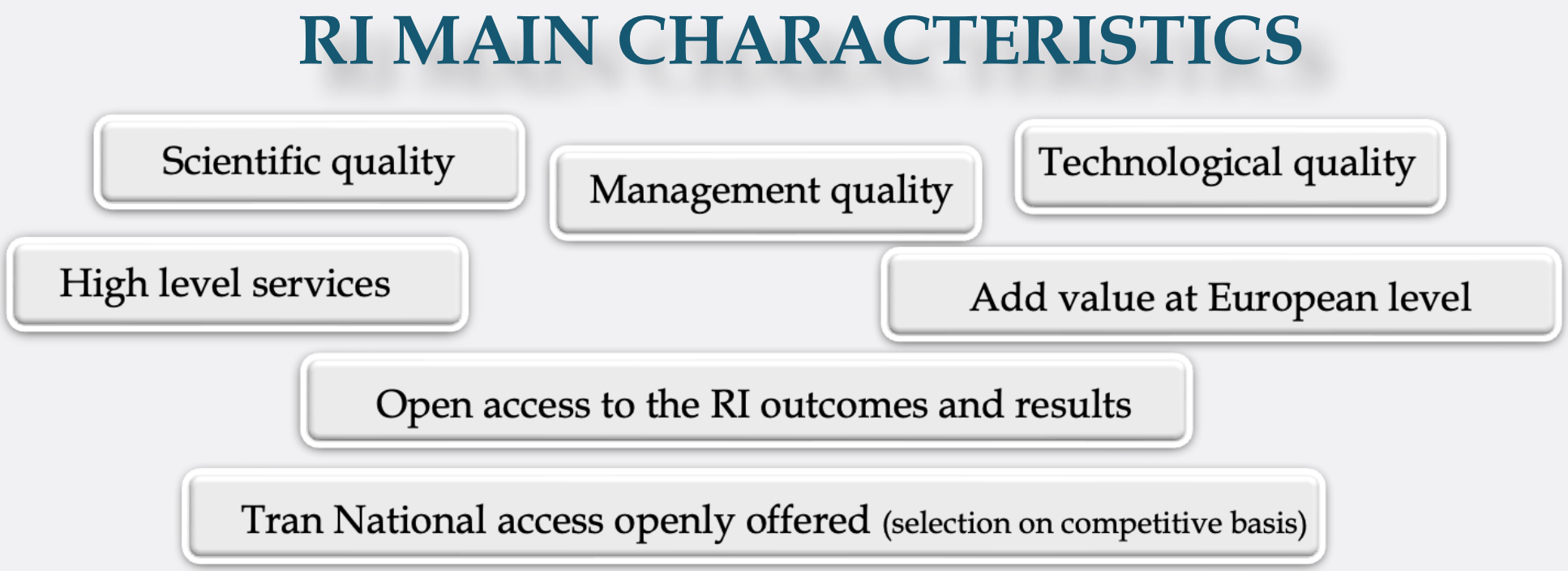
ACTRIS National Contact Point

Research Infrastructure

Research infrastructures of pan-European interest are defined as *"structures, resources and related services, used by the scientific community to conduct high-quality research in their respective fields, without constraints of institutional or national affiliation"* (Definition of ESFRI -European Strategy Forum for Research Infrastructures).



Research Infrastructure

- contribute significantly to the *development of new knowledge and new methodologies in environmental sciences* (i.e. mitigation and adaptation to climate change, integrated approach for the study of natural resources, sustainable land use, sustainable food production).

- *centers of transfer of knowledge* both to public administration and to other sectors (i.e. safety and security, forecasting, engineering, planning for land use in both urban and rural environments).

- provide *information to the public* (i.e. early warning for natural risks, sustainable use of natural resources).

- *training centers* for students and young researchers working in the environmental sector.

Research Infrastructure

Main Services:

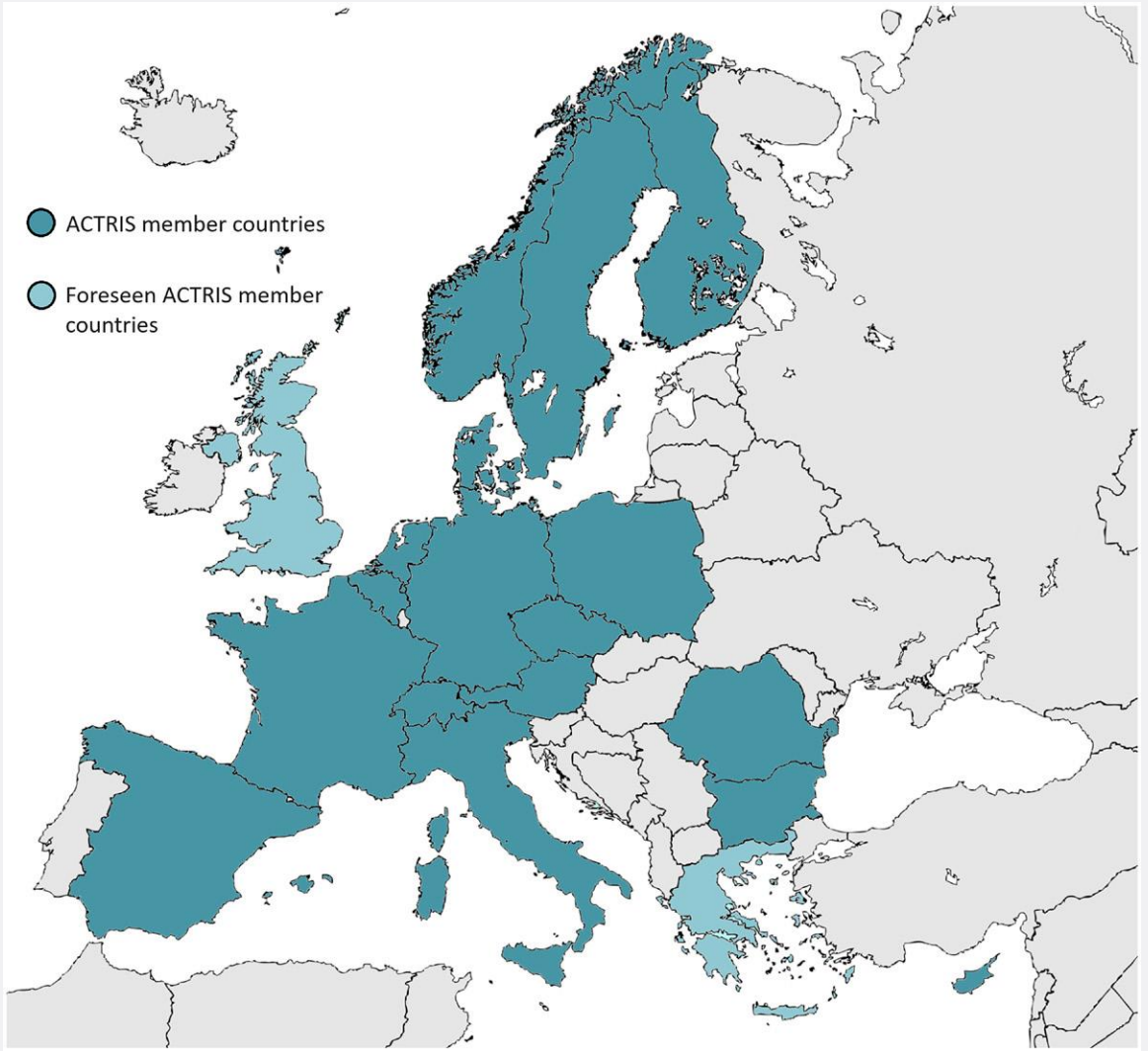
- High quality measurements and data, and fully documented and standardized
- Advanced and standardized measurement platforms for experiments and studies
- Tools to be used for measurement campaigns or particular studies
- Sharing of knowledge with training, workshops, possibility of degree/doctoral thesis

ACTRIS (Aerosol Clouds Trace Gases RI)

ACTRIS aims to establish, develop, and make operational a pan-European distributed research infrastructure for the study of short-lived atmospheric constituents.

Currently, 22 countries are part of ACTRIS.

www.actris.eu



ACTRIS (Aerosol Clouds Trace Gases RI)

Main Objectives

production of integrated data of high quality

&

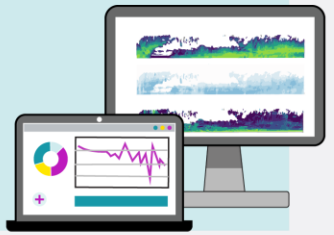
provision of services as access to the instrumental platforms for scientific and technological applications

EXPLORING THE ATMOSPHERE

Long-term measurements of aerosol, clouds and trace gases are collected from surface to the stratosphere by state-of-the-art in situ and remote sensing techniques.

ENSURING QUALITY DATA

High-class and quality assuared data are generated by following harmonized and standardized operating procedures and fulfilling the FAIR data principles.



EASILY ACCESSING DATA

ACTRIS is committed to provide users free and open access to primary data and data products trough a single point of entry.

ESTABLISHING OPPORTUNITIES

ACTRIS provides access to the best atmospheric research environments and expertise, promotes international collaborations and supports training of researchers and early-career scientists.

ACTRIS (Aerosol Clouds Trace Gases RI)

National Facilities

Physical and Remote Access
Research Services
Instrument calibration
Industry Services
Training services

Users

Topical Centres

Instrument calibration

Data Centre

Virtual Access
ACTRIS data products
ACTRIS VRE with graphic and computing tools

NF aerosol, cloud and trace gas variables

National Facilities

ACTRIS – IT www.actris.it

ACTRIS-IT Joint Research Unit (JRU) was established in 2017

8 partners

Italy was among the funding Countries of ACTRIS, coordinating the first 2 projects related tt he establishment of ACTRIS starting from European networks in the field.

ACTRIS – IT www.actris.it

Key role of Italy in ACTRIS

Partecipation in Central Facilities

Head Office - Service and Access Management Unit (SAMU)

Data Centre- Aerosol remote sensing data centre unit (ARES)

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

Centre for Aerosol In Situ Measurements - Elemental Mass Composition Centre (EMC2)

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7 ACTRIS Observational Platforms for atmospheric measurements (Mt Cimone, L'Aquila, Rome, Naples, Potenza, Lecce, Lampedusa),

+

3 ACTRIS Exploratory platforms, including 1 chamber for measurements in a controlled environment (Genoa) and 2 transportable systems for atmospheric measurements (operated by the sites in Potenza and Lecce).

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Aerosol in situ

Monte Cimone – Bologna – CNR ISAC

Rome – CNR ISAC

Potenza – CNR IMAA

Lecce – CNR ISAC

Ispra – Varese – JRC

Planned:

Naples -UNINA

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Aerosol remote sensing

Rome – CNR ISAC

L'Aquila – UniLA

Naples –UNINA

Potenza – CNR IMAA

Lecce – UniSalento

Ispra – Varese – JRC

Planned:

Monte Cimone – Bologna – CNR ISAC

Lampedusa – Agrigento - ENEA

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Additional data are available from ACTRIS datacentre related to associated stations and campaigns over Italy

Further data can be added in the near future to the ACTRIS DC

Wide community (around 120 people) with advanced expertise and opened for discussion and new challenges

ACTRIS


ACTRIS