

ACTRIS Week 2022

October 25th, physical meeting with a remote connection

Action Items

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Introduction and Updates from the Head Office

09:00-09:30 CEST

Presentation given by ACTRIS Interim Leader Eija Juurola and ACTRIS Scientific Chair Paolo Laj.

Updates from the Data Centre

09:30-10:30 CEST

Presentation given by ACTRIS DC Leader Cathrine Lund Myhre and her team.

Action points:

- Discussion of data metrics between RIs is needed. There is a call regarding data metrics to be considered (deadline next year).
- Discussion at TC level on instrument PIDs, including how to treat instruments that go through a major upgrade (new PID).
- Discussion on how to treat the changes in the instrument information (e.g., changes in NF PI information or in other information that may need the approval at the TC level).

Discussion:

- Metrics of data download and use that other RIs are using are not the same as ours. A question of whether there is a place in ENVRI FAIR to discuss the metrics. Relevant call is now open, DL next year.
- Footprints as NC files should be available.
- In many vases there is a fixed correspondence between the vocabulary term and the unit.
- Regarding instrument database, some of the information comes from the labelling process interface, but it is important to decide how to change the information provided over time. This

- has been discussed but not formalized yet. The idea is to have a database incl. the PI information etc. that can change over time, and to create an automatic system.
- There can be NF PI change but then there can be changes that need to be approved by the TC. There could be a workflow system where the NF requests a change, and the TC approves it.
 - When possible, we can link our PIDs to any other database, e.g. WMO Wigos id.
 - There will be PIDs for in-house developed instruments. Link from the landing page to be made available.
 - A special discussion within each TC is needed about an instrument going through a major upgrade and its effect on the PID. New PID for an instrument can be created (with major upgrades an instrument could be considered as a new instrument), in this case there can be a reference to the PID of the old instrument.
 - PID landing page should not change (the top of it at least. The bottom could change or there can be different versions of the page).

Building the ACTRIS National Facility Strategy

11:00-12:30 CEST

Presentation given by Niku Kivekäs with statements from four ACTRIS countries (Czech Republic - Milan Váňa, France - Stéphane Sauvage, Greece - Nikolaos Mihalopoulos, Portugal - Daniele Bortoli).

Action points:

- Update the NF strategy document based on the discussion of the meeting (see the main points of the discussions below).
- Topics to be discussed in more detail in the future:
 - pricing of our services to users outside of ACTRIS NFs,
 - ACTRIS label at instrument level and related pricing – we could perform a survey for countries on the existing extra instrumentation (additional request for ACTRIS),
 - multiple instruments within an NF,
 - the sites existing very close to each other (considered as separate NFs, main site/subsites of one NF or something else?).

Discussion:

- ACTRIS observational platforms (continuously monitoring sites) can provide access. The facilities shall not stop their continuous monitoring for providing access. The users shall bring their own instruments to the site to perform measurements.
- A feasibility check will be performed for an NF to ensure the NF has enough capacity to provide access.
- There is an ATMO-ACCESS meeting in December intended for National Facility PIs where the remote access organized at stations and simulation chambers shall be discussed. Everyone is

- encouraged to attend. Important discussions for the development of access provision in ACTRIS.
- Health impact topic is important, and we should think what kind of setup is needed in the future to reach the goals regarding this.
 - Important discussion topics for our strategy include
 - ACTRIS on a European vs. global level, its role and the engagement of other countries and facilities in other countries. It should be noted that we already have global coverage.
 - Looking ahead into far future, e.g. 30 years ahead.
 - We need to make a distinction: global vs. Polar region. Europe has a responsibility to perform monitoring in the Polar regions (the European sectors of the Polar region).
 - Global level: ECAC has not been successful in doing QA for global sites. Sister TCs are needed to perform the QA for the sites outside of Europe (in case there are many). It is a big effort to increase capacity.
 - The connection to sites outside of EU is important for us.
 - AERONET: it is important to continue to calibrate instruments on a global level. Regarding RPFs – we need to be very careful in discussing about fees due to long history of providing cost-free calibration of instruments to users.
 - Duplicate instruments for one NF is an issue in terms of TC capacity. We should also consider co-location between ACTRIS components
 - Discussion about data fulfilling ACTRIS requirements but not being from officially labelled ACTRIS NFs. It is important to make a distinction between ACTRIS NFs and sites that are not ACTRIS NFs.
 - It is important that we do not disrupt existing networks. If we have previously provided no cost services to users, perhaps we should maintain this, but we need to monitor the activities (via SAMU) of what are TCs doing outside of supporting NFs. Pricing is needed and the pricing can be waived in some cases if this is according to our strategy.
 - A discussion about the overlap of cloud in situ and aerosol in situ instrumentation.
 - INPs would be measured at aerosol in situ sites even though the site would not be a complete cloud in situ site.
 - INP instruments, serviced through CIS, need an ACTRIS label. If site having the instrument is not an ACTRIS NF (for cloud in situ component), the instrument should have the label even though the NF does not fulfil the full requirements of cloud in situ NF.
 - Financial aspects are also to be considered if a country decides to have one instrument but not complete component measurements (how this affects the membership fees).
 - Note that NF label is component-specific.
 - If an instrument is ACTRIS-compliant, we can service it and take the data. QA for these instruments outside of labelled NF components should be paid somehow.

- Survey of the extra instrumentation. Countries need to provide information with these additional requests, and it should be a country-level decision, not only on the RPO level.

NF Labelling Process and Next Steps

13:30-14:00 CEST

Presentation given by Niku Kivekäs.

- Specific question to the aerosol remote sensing representatives of Warsaw, Barcelona and Cyprus NFs: would you be interested in the pilot labelling as more aerosol remote sensing facilities are needed?
 - Barcelona representative: Spanish ministry has signed the ERIC doc, and therefore available for the pilot.
 - Barcelona in situ: the process is awaiting from the signature from the ministry.
 - Cyprus is willing to join the process.
 - Granada is another station that could be a possible candidate for the pilot.
- It is not necessary to have all components ready. Labelling shall not be delayed in order to be fully ready with all components.
- The country pays the membership fee, based on the labelling. It is important to decide whether the country should take care of the quality of the instrument for all its stations.

The ACTRIS Atmospheric Chamber Community – Updates and Outlook

14:00-14:30 CEST

Presentation given by Astrid Kiendler-Scharr.

- Categorization of chambers in subgroups is possible (e.g. fixed vs mobile chambers). This can be used to understand the impact of the services offered by the ASC.
- We are aware of chambers in non-EU countries, but there is no strong coordination with other chamber networks. A number of countries is interested in ASC (e.g. from Beijing and South Korea), particularly in the cloud simulation chambers. There is an emerging interest from outside the EU.
- Chambers are mainly considering lower tropospheric condition due to practical reasons.
- There is a possibility to provide remote access to chambers but no overall activity to review such a component. Remote access can be provided, but not through the Data Centre. One way is to run locally an external request for an experiment. Another option is that a group sends

an instrument for additional measurements in the chamber (request for testing). Clear rules should be made available to clarify this.

Perspectives on ACTRIS by SIAB Experts

15:00-16:00 CEST

Presentations given by Vincent-Henri Peuch, Leonard Barrie and Valérie Thouret.

- Vincent-Henri Peuch provided an update on CAMS and reminded about the activities connecting ACTRIS & CAMS.
 - CAMS is now at its 7th phase, and big changes are coming up.
 - Observations of emissions will be the real focus.
 - Collaboration with EU members states to support the countries to test/use CAMS data
 - 23 million of people in EU get access/information via CAMS data (TV, etc).
 - The global system assimilates satellite observations due to data coverage as in situ isn't enough. Differences in quality of the product are a possibility. The limiting factor is the data coverage rather than the capacity.
- Leonard Barrie places ACTRIS in an historical/global RI context as a role model for technology and transfer of knowledge.
 - It is important for ACTRIS not to think of research and operations as separate things. ACTRIS should keep a strong connection between research developments and operational services. For example: weather forecast groups are very close to research performing operations.
- Valerie Thouret presents IAGOS and synergies with ACTRIS (& ICOS ERIC) and reports on new developments of IAGOS instrumentation.
 - It is important for ACTRIS to keep producing high-quality long-term data characterizing the state of the atmosphere as they are essential to other applications for air quality, climate studies and health.

Innovation and Private Sector Liaison in ACTRIS

16:00-17:00 CEST

Presentation given by Carmela Cornacchia and the Innovation team.