**Minutes ACTRIS ACSM meeting**

Milan, 09.09.2015

**Participants (non-exhaustive list):**

Laurent Poulain, MariCruz Minguillón, Yuliya Sosedova, Roman Fröhlich, David Green, Jean Sciare, Michael Bressi, Jaroslav Schwarz, Otakar Makeš, James Allan, Olivier Favez, Jean-Eudes Petit, Douglas Worsnop, Alexandre Marpillat, John Jayne, Valérie Gros, Evelyn Freney, Jurgita Ovadnevaite, Ernesto Reyes, Urs Baltensperger, Jay Slowik, Katarina Bougiatioti, Nicolas Marchand, Mikko Äjälä, Patrick Schlag, Claudio Belis, Hideki Nara, Liine Heikkinen, Jeni Vasilescu, Luminita Marmureanu, Mina Aurella, Michael Pikridas, Vidmantas Ulevicius, Stina Ausmeel, Julia Schmale, Marek Maasikmets, Stephen Platt

**Discussion Topics:**

Update on the PSI webpage on ACSM / *R. Fröhlich*

* http://www.psi.ch/acsm-stations/
* Roman is going to finish his PhD quite soon and leave PSI end of September. Yuliya Sosedova (also PSI) has been taking over with the PSI ACSM webpage.
* New ACSM ACTRIS stations should be recorded, including info about non-ACSM instrumentation (please see the Cape Corse station as an example).
* ACSM best practice document has to be updated within ACTRIS2.
* PSI is also updating a list of publications based on any ACTRIS ACSM dataset. If some are missing: please contact Roman/Yuliya
* Mailing list: should be updated with new ACTRIS (associate) partners. Please contact Roman/Yuliya. The list can be found on google (<https://lists.web.psi.ch/pipermail/actris-acsm/2013-August/000000.html> & https://lists.web.psi.ch/mailman/listinfo/actris-acsm). Mails (without any attached document) can be sent from this site. Sabine Philippin is going be informed in order to distribute the link to anybody interested in within ACTRIS2.

EBAS upload / *J. Slowik*

* A new version of the EETA tool is available. It allows generating file containing “org/error matrices”, to be sent to PSI for archive purpose. Using this option “org/error matrices” are generated the same way than when using the main ACSM Igor panel. External data can also be added/archived. This new version only works for Q-ACSM data. The next version (to be out within a couple of months) will also work for ToF-ACSM and AMS data. PSI also plans to develop a script to transform these archive files into format that can be used within PMF analysis toolkits.
* Deadline for data submission to Ebas? : should be done before July for data corresponding to the previous year. Can be done more frequently than once a year. In ACTRIS2, some data should be submitted in near real-time. This can be done for ACSM data (e.g. using the Igor procedure developed by ARI to send concentration and technical parameter data to ftp servers).

Next ACTRIS2 ACSM Intercomparison – generalities / *V. Gros*

* Will take place at the Aerosol Chemical Monitor Calibration Centre (ACMCC), co-located with the SIRTA/LSCE station) in March 2016.
* Due to the departure of Jean Sciare to CyI, Evelyn Freney (CNRS/LaMP), Valerie Gros (CNRS/LSCE) and Olivier Favez (INERIS) are in charge of the ACMCC activities, including this intercomparison.
* Valerie is also taking over Jean for SIRTA/LSCE activities related to long-term in-situ aerosols measurements (in addition to reactive gases measurements, she was already supervising within ACTRIS1).
* ACMCC is taking advantages of various gaseous and aerosol analyzers.
* 2 papers related to the first ACSM intercomparison (Nov. 2013) already submitted/published: Crenn et al. (AMTD, 2015) & Fröhlich et al. (AMT, 2015).
* Choice of the period for this first ACTRIS2 ACSM intercomparison: early spring commonly matches with pollution episodes in France = interesting period for the investigation of a wide range of ambient air concentration and for research studies. Moreover, there is a need to start asap since at least two intercomparison exercices have to be performed before the end of ACTRIS2 and it is not wanted to have them close to each other.
* To contact the ACMCC: [acmcc@lsce.ipsl.fr](mailto:acmcc@lsce.ipsl.fr)

Next ACTRIS2 ACSM Intercomparison – agenda / *E. Freney*

* 2 main phases: the first one (4-14/3) dedicated to typical quality control operations, the second one (from 15/3 onwards) dedicated to research-oriented activities.
* Instruments should arrive at ACMCC before 02/03/2016.
* LSCE and INERIS teams will unpack and install them.
* 04-07/03: 3 days of intercomparisons with instruments “as they arrived”. A survey of the (R)IE stability over long time period (e.g., in between the different intercomparison exercise) should be performed.
* 07-10/03: calibrations (IE, RIEs, Lens alignment ...). ARI will be there, and could bring a PAM chamber to be used for RIE Org calibrations (10l/min SOA flow, notably interesting fort he investigation of f44 intercomparison). Workshop and trainings (and instrument maintenance if needed). People works on their own dataset. Igor procedure for near real-time data transfer may be installed on each system.
* 11-14/03: 3 days of intercomparisons with calibrated instruments.
* After 15/3: second phase, which should be long enough (>2 weeks) to allow for the comparison of PMF outputs. ToF-ACSM intercomparison (at least 4 instruments available: FMI, PSI, LaMP, INERIS). Tests on the capture vaporizer along with the PM2.5 lens. At least one instrument should be equipped with both latter systems for a couple of months to investigate various conditions (by comparison with the SIRTA/LSCE Q-ACSM and non-ACSM systems). Nicolas Marchand (LCE) may participate with a TAG-AMS. Need for an HR-ToF-AMS (the one from Manchester wil not be available).
* Max. number of instruments per phase : 16.
* All participants should register through TNA application asap (and before mid-November).
* Data Analyses = Evelyn responsibility to edit report and to look after the data (both phases).
* ADDAIR (Alexandre Marpillat, Vincent Crenn), which is distributing ACSM in France, will help during the intercomparison exercises and could be involved in the data treatment.

COLOSSAL COST action / *M.-C. Minguillón*

Final answer should be known on 22/10. If accepted, part of the budget may be used for travel/meetings (ACSM intercomparison, workshops, …) of COLOSSAL proposers.

Scientific presentations (available from speakers on request)

* *Evelyn Freney*: description of the TNA Puy-de-Dôme station (Q-ACSM).
* *Laurent Poulain*: description of the TNA Melpitz station (Q-ACSM). ACSM data analysis: possible underestimation with ACSM when compared to SMPS due to size cut-off ? Wintertime PMF (ME-2) analysis indicate 6 factors (SV-OOA, LV-OOA 1, LV-OOA2, HOA, BBOA and Coal burning). PSCF analyses.
* *Michael Pikridas*: description of the TNA Ayia Marina, Cyprus station (Q-ACSM). Importance of mineral dust aerosols.
* *Jean-Eudes Petit*: Air Lorraine (French regional air quality monitoring network) to become an ACTRIS associate partner. ZeFir (based on wind direction and wind speed analysis) may be included in the SoFi tool. Possible issue in calculating the error matrix (to be checked).

Current status of JRC overview paper / *M.Bressi*

* Focus of the paper: European phenomenology of (NR-)PM1 aerosols, spatial distributions, relative contributions, diurnal patterns, etc ...
* External data and information (e.g., related to quality control) still needed for some stations.
* A first draft should be distributed to all co-authors early 2016.

Current status of ACSM-PMF Intercomparison paper / *C. Belis*

* Focus of the paper: intercomparison of PMF outputs obtained by participants of the first intercomparison (Nov. 2013, at SIRTA) using their own datasets.
* Same methodology than the one applied in Belis et al. (Atmos. Environ., 2015).
* A first draft should be distributed to all co-authors within a couple of months.