

Minutes	Nr. 1/2024	
Subject CiGas Community meeting 2024	Meeting date 07.11.2024 Meeting place Matera, Italy and Online	
Participants See below	Distributor registered participants	
Author Ralf Tillmann/Peeyush Khare/Katrin Seemeyer	Date 15.11.2024	To do (by/until)
Documents Slides - https://intranet.actris.eu/index.php/s/n4px8c8F2jWfgkZ Slides Data submission and new Data portal – https://intranet.actris.eu/index.php/s/NkdSYkiBirqBqEA		
<p>AGENDA</p> <ul style="list-style-type: none"> • Introduction • Activity/implementation update 2024 • Labelling status • Audit procedure and plan; RR (stability results) • Instrument database - Status, further development • NRT data submission and vision • Data submission status and selected functions of the data portal • Science talk: CIMS intercomparison, Hyytiälä • CiGas data coverage requirements • Application of Data QA/QC tools • Data flagging workshop for VOC and NOx 		
<p>Introduction (side 3)</p> <p>Due to technical issues with the online connection, the workshop was delayed by approximately 35 minutes. Consequently, it was decided to skip the last two discussion sections – “<i>Application of Data QA/QC tools</i>” and “<i>Data flagging workshop for VOC and NOx</i>” - and to schedule them for another online meeting later.</p> <p>Ralf Tillmann welcomed the participants and introduced the agenda.</p>		
<p>Activity/implementation update 2024 (slide 4 - 37)</p> <p>The unit heads gave a short overview on implementation status and the activities in 2024 of their respective units.</p> <p>Ralf Tillman (FZJV) – slides 5 - 11 Thérèse Salameh (IMT-NE) – slides 12 - 16 Anja Claude (DWD) – slides 17 - 25 Silja Häme (UHEL) -slides 26 - 32 Max Adam (FZJN) – slides 33 - 37 Zoé Le Bras (EMPA) - no slides</p>		

<p>Labelling status (slide 38 - 41)</p> <p>Katrin Seemeyer gave a summary on the Labelling status. In the discussion Chris Lunder from the NFs Zeppelin and Trollhaugen asked if the measurement of NO_x (one of the requirements for ACTRIS CiGas label) was really necessary as at these stations the NO_x ratios are below the detection limit. Although Niku Kivekäs mentioned that exceptions to the requirements would be possible, Robert Wegener, who had looked at preliminary NO_x data from Zeppelin, stated that seasonal fluctuations can be observed at these stations and NO_x measurement should be done.</p>	
<p>Audit procedure and plan; RR (stability results) (slide 42 - 50)</p> <p>Ralf Tillmann presented the audit procedure and the objectives of the audits. A positive audit report means that the station meets the requirements for ACTRIS CiGas and delivers data over at least 75% of the 2-year period including data from all four seasons. The station itself and the instruments for reactive trace gas in-situ measurements will be audited. It was emphasized that the national facilities have to purchase and use laboratory standards that are traceable and certified by a recognized institution (NPL/NIST). Dagmar queried about whether an audit would be necessary if an instrument breaks down and needs to be replaced. Ralf responded that the protocol for such a situation is not entirely laid out yet. However, if the replacement is exactly the same instrument and is connected to the same lines, it's likely to not need a re-audit. The instrument should be able to measure the standards correctly. Yet, this would be decided on a case-by-case basis. A full re-audit may not be needed but something close to it can be done. Niku Kivekäs remarked that 6-8 audits per year will be a bottle neck and asked when do the measurements from a station can be considered ACTRIS-grade. Ralf responded that in principle, after completion of labelling step 1a since we confirm at this point that the station in question meets the ACTRIS requirements.</p>	
<p>Instrument database - Status, further development (slide 51 – 64)</p> <p>Ralf Tillmann and Roman Romany gave an overview on the current status of the instrument database and an outlook on further developments. In the discussion it was mentioned that to make sure that the data is correct and in accordance with the measurement guideline changes will be tracked and CiGas will be alerted to them. The header for the data submission can be produced by the database and will be connected to the calibration of the instrument. For the log-book feature, a direct connection to in-house systems used at different stations is not possible/planned as the effort to include the different log book systems from all the NFs. However, the use of APIs would be possible.</p>	
<p>CiGas data coverage requirements (slide 65 – 66)</p> <p>Ralf Tillmann presented the requirements of the ACTRIS CiGas data coverage and the requirement to use NPL (NIST) standards. In the discussion it was mentioned that there are stability issues for standards for PTR-MS with 100 ppb. ACTRIS CiGas measurements rely on the NPL standards to assure data quality. Can standards be used longer? Recalibration provided by NPL? Robert raised a concern that our measurement program relies on CCL</p>	

<p>standards that are made by companies and we are dependent on the reliability of the companies to ensure quality of the standards and on their decision to continue producing them.</p>	
<p>NRT data submission and vision (slide 68 – 85)</p> <p>Thérèse Salameh (VOCs slide 68 – 76) and Robert Wegener (NOx slide 77 – 85) reported on the activities in the CAMS2_21a project on the NRT provision of VOCs and NOx.</p> <p>The data is currently for GCMS and for the quality assurance the @VOC@ tool is used. Thérèse noted that a python code has been developed to process PTR-MS data to convert from cps to pmol/mol. The template is available on the ebas website. For quality assurances pertinent to PTR-MS, Thérèse mentioned that level 0 is cps, which the software converts to pmol/mol. Blanks are taken into consideration and such ion masses are also included that give an insight into the functioning of the instrument. Robert noted that until 2022, stations submitted level 0 and level 2 data. Since 2023, stations are required to submit uncorrected data and TC performs the corrections including for ozone and RH.</p>	
<p>Data submission status and selected functions of the data portal (separate file)</p> <p>Markus Fiebig reported on the status of the data submission and gave a live presentation of some functions of the new data portal. Markus has a tool to track all issues of the submitted data and their history. Anja queries whether some additional pieces of information could be assimilated with the data (e.g. flowrates). Ralf noted that we have to be careful with the data logging requirements since it all has to be harmonized between 30 sites, who can all present different supporting data information.</p>	
<p>Science talk: CIMS intercomparison, Hyytiälä (slide 87 – 99)</p> <p>Nina Sarnela reported on the CIMS intercomparison workshop held in Hyytiälä and highlighted key oxygenated organic species that are within the purview of their interest. Nina also noted that currently the calibrations have been performed mainly for sulfuric acid.</p>	