
EUROCHAMP-2020 FINAL MEETING

22-23-24 June 2021

Participants: Véronique Daële (CNRS), Matilde Oliveri (CNRS), Jean-François Doussin (CNRS), Bénédicte Picquet-Varrault (CNRS), Wahid Mellouki (CNRS), , Aline Gratien (Université de Paris), Christian George (CNRS), Amalia Muñoz (CEAM), Andrew Rickard (UYORK), Annele Virtanen (UEF), Aristeidis Violotis (UMAN), Cathy Bonne (CNRS), Christopher Cantrell (UPEC), Dario Massabò (INFN), David Bell (PSI), Dennis Niedermeier (TROPOS), Falk Mothes (TROPOS), Claudia Di Biagio (CNRS), Gordon McFiggans (UMAN), Hendrik Fuchs (FZJ), Harald Saathoff (KIT), Hartmut Herrmann (TROPOS), Iulia Patroescu-Klotz (BUW), Astrid Kiendler-Scharr (FZJ), Iustinian Bejan (UAIC), Jan Kaiser (UEA), John Wenger (UCC), Kristina Höhler (KIT), Layal Fayad (ULCO), Max McGillen (CNRS), Manuela Cirtog (UPEC), Michelle Färber (FZJ), Bernard Aumont (UPEC), Mila Rodenas (CEAM), Paul Seakins (ULEEDS), Niklas Illmann (BUW), Ottmar Möhler (KIT), Paolo Prati (UNIGE), Paolo Laj (UHEL), Peter Wiesen (BUW), Sebastien Perrier (CNRS), Olli Sippula (UEF), Patrice Coll (Université de Paris), Ralf Kurtenbach (BUW), Matthew Johnson (Airlabs), Silvia Danelli (INFN), Spyros Pandis (FORTH), Urs Baltensperger (PSI), Simon O'meara (UMAN).

22nd June 2021

Introduction - Jean-François Doussin (CNRS)

The Coordinator, Jean-François Doussin (CNRS), introduces the main topics that will be tackled during the three days, and stresses out the purpose of this final meeting, which is particularly focused on the pending activities to complete the project, and on the perspectives for the future of the EUROCHAMP community.

WP2: Results from the multi-chamber experiments - Amalia Muñoz (CEAM), Andrew Rickard (UYORK), Spyros Pandis (FORTH), Michelle Färber (FZJ)

The results and conclusions of the different types of experiments are presented to the participants. A-pinene experiments' results are presented by Michelle Färber, toluene experiments are presented by Spyros Pandis and propene experiments are presented by Andrew Rickard.

Even if they were used in the intercomparison exercise, Wahid Mellouki (CNRS) and Peter Wiesen (BUW) offer to share data from tetramethylbenzidine (TMB) experiments, which were performed locally.

Urs Baltensperger (PSI) strongly suggests publishing such datasets, since a project deliverable is not enough. Spyros P. confirms that it is planned, they will be published in two papers.

Jean-François D. underlines that users need to have clear guidelines to understand these datasets, since they are not obvious. In the short time, at the local level, the models could be improved. He also stresses the fact that it appears clear now that HONO is essential to be measured. He suggests to Spyros P. to compare the results as a function of OH exposure for example.

Gordon McFiggans (UMAN) points that the difficulties of presenting fully comparable chambers and of making it understandable for an external user, is a sign of a maturity level that still needs to grow.

This underlines the need of ACTRIS as a structure to grow in maturity as infrastructures in the very upcoming future.

→ In order to produce the due deliverable, the 4 task leaders will write a first draft report, to be shared with the rest of the partners involved in the task, and that will be compiled and submitted before August 15th to the Project Office.

→ Data will be included in the project DC

WP4: survey and analysis report on the private sector engagement - John Wenger (UCC)

A collection of all the local and TNA collaborations with the private sector, both with SMEs and large industries, are briefly presented by each partner involved (FORTH, CNRS-ICARE, CEAM, PSI, INFN, BUW, UEA and UEF). All these examples will be detailed in the final report. It is remarked that many of these collaborations take place outside the TNA programme, because of different reasons, which could be better analysed in the final survey.

Another topic which needs to be better analysed, is the way to keep interactions lively and long-lasting with the companies that we collaborate with.

Paolo Laj (UHEL) underlines that EUROCHAMP has not worked enough on the collaboration with metrology institutes; in the survey one of the questions could be about the potential use of chambers to develop metrological standards, and about the advantages of testing in more than one chamber to compare results.

Concerning the pending tasks to be completed:

- MS31 “Final survey of industry users”: John W. shared a collaborative Slido poll to collect suggestions and ideas from the participants on the key questions that should be addressed to the industry users in the survey. All feedback will be used to build the survey.

→ the summaries sent by each partner for the presentation, will be reused for the final report.

WP5 - Long term sustainability of EUROCHAMP in the ESFRI landscape

Paolo L. retraces the main steps that led to the integration of EUROCHAMP into ACTRIS. After these years, the outputs of this process are:

- EUROCHAMP chambers are included and details in the ACTRIS Technical and Scientific Description (TSD)
- Many simulation chambers were proposed as National Facilities by member countries and observer countries
- The EUROCHAMP DC is a main component of the ACTRIS DC
- The ACTRIS Simulation Chambers Committee was established and will guarantee the scientific relevance of chambers in the ACTRIS framework
- Thanks also to chambers, the access activity is key into the ACTRIS structure

Some points of attention, though, still need to be tackled in the upcoming future:

- Access is temporarily funded through the ATMO-ACCESS, but not secured in the long term
- The need to maintain cohesion in the chamber community without the support of INFRAIA programmes
- Services from simulation chambers must be visible and well defined in ACTRIS

The whole community appreciated the efforts made to create the path for this merging process, and recognizes the added value of being part of the ACTRIS RI.

WP6: summary of main communication achievements - Christian George (CNRS)

The project's communication activities will soon be centralised by the ACTRIS Head Office and will be under the banner of ACTRIS. Partners are invited to subscribe to the [ACTRIS mailing list](#).

Concerning the participation in the ENVRI cluster, from September EUROCHAMP will continue to be part of it under ACTRIS and no more as an IR apart.

A particular accent was given to the remote training activities which were done in the last part of the project, because of the travel restrictions imposed by COVID-19. Some partners like BUW carried on training in the framework of a TNA project, and presented the main lessons learnt, the advantages, and the limits.

The joint special issue in AMT, ACP and GMD was a major achievement, as 49 papers were submitted up to now (June 201), suggesting a high visibility of the special issue also from outside our community. In the final report, the educational activities' report (BUW) will also be included.

Concerning the pending tasks to be completed:

- D6.8: "Final report on the scientific outputs from EUROCHAMP-2020", which will need to be an easy-to-read condensed summary of the scientific breakthroughs of the project.

→ **each Work Package will send 1-2 pages of highlights and a summary of the main actions, by July 15th to Christian George (CNRS) and to the Project Office. WP10 and WP11 may produce 2-3 pages, as the science content may be quite substantial.**

→ **the final report, the educational activities' report will also be included**

WP9: EUROCHAMP Data Centre -Bénédicte Picquet-Varrault (UPEC)

An general overview of the main advancements in the DC showed that the initial objectives in this task were all fully achieved. The new DC has been fully operational since 2019, and its long-term sustainability has been ensured by its inclusion in the ACTRIS DC, thanks to the engagement of CNRS-AERIS.

The new DC is also presented: DVAS (ACTRIS Data Discovery, Virtual Access and Services) is responsible for organising access to measurement data from the TC units, to documentation of procedures as support to observation and exploratory platforms. It will be the web interface for data download, and to access services and digital tools.

The ongoing tasks are:

- Definition of joint metadata catalogue
- Application of FAIR principles to ACTRIS ACS unit
- Definition of ASC data workflow, with different working groups in charge of the different scientific topics.

Jean-François D. underlines that, despite the fact that data upload is very time-consuming since little automatisation is possible, the DC is a real asset, which can be of help to provide data and even DOI in view of a publication.

→ **for the final report, Bénédicte P.-V. will be responsible for the writing of the technical part, but it is essential that all partners submit their data as soon as possible.**

23rd June 2021

WP7: summary of TNA programme - Peter Wiesen, Iulia Patroescu-Klotz (BUW)

The statistics of access to simulation chambers are presented, updated to June 2021. Particular attention was paid to the experiences of remote access. Based on the feedback of access providers, it is concluded that remote access is more time consuming than physical access, but it was an occasion to put in place a good communication system with the PI and the data exchange was very positive. Communication is the key for a successful project. This very valid experience will be very important to be transferred to ATMO-ACCESS.

The high rate of positively evaluated proposals is a sign of high quality projects, and can be explained also by the fact that reviewers accompanied the PIs to improve their proposals, by giving constructive feedback and suggestions of improvement. Many exchanges between the reviewers and the PIs were done in many proposals before their final approval.

Concerning the gender aspect, it is remarked that the gender imbalance is obvious (around 60% male users against 40% of female users), and this reflects the general imbalance in the whole field.

→ **Jean-François suggests extracting some gender statistics among young researchers for the final report**, where probably the balance is better, since more and more women are entering the research career in the new generations.

In order to improve the TNA evaluation process, several suggestions are given:

- Having a clearer and scheme of the fields of expertise of the reviewers would spare the step of asking for a scientific expertise, or would at least speed up this particular step;
- Having a poll of open anonymous reviewers, picking the ncome applications, without an “appointment” from our side.

It is agreed that, after June 30th, it will not be possible anymore to submit new TNA proposals.

Submission of data from TNA projects: in the future, it will be important to strongly push PIs accessing our facilities to upload data from TNA experiments to the DC. In ACTRIS it will be compulsory, except from companies.

WP8: summary of TNA programme - Harald Saathoff (KIT)

The statistics of access to calibration centres are presented, updated to June 2021. During the first year of the project, not all facilities were mature enough, so almost no access took place. After, thanks to substantial effort from the access providers to provide the right communication, and to set up targeted calls, many projects took place, and almost all the access days were used.

Internal users represent almost 25% of the total users, which is a good sign, since it shows that also in the consortium users learnt how to use and calibrate instruments which were then used in other project’s activities.

Paolo L. asks about the outcome of the intercomparison campaigns. In the past some of them, like SOA intercomparisons, were not successful, so it would be interesting to put an accent to this point in the final report. Falk Mothes (TROPOS) specifies that it is not obvious to evaluate the outcome, since, because of the pandemics, they lost quite many users. In the ILC, more users would have been useful

to have more impactful results. Nevertheless, based on the result from the 1st and 2nd ILCs, the outcomes are quite positive, even if it is still a long way to the harmonisation of the procedure for measuring these organic compounds.

Hartmut H. underlines that the participation from the ACTRIS community would have been very useful and hopefully in the future this will be the case.

WP10: summary of the main additional achievements of the last RP - David Bell (PSI)

The main achievements from each partner since the second periodic report, were presented and will be reported in the final report.

→ **For the final report, each partner involved needs to write a paragraph (20 lines) and a figure and send it to David B., before July 16th.** The information needs to be simplified and self-explanatory, since the report does not need to be too technical.

WP11: summary of the main additional achievements of the last RP - Gordon McFiggans (UMAN)

The main achievements from each partner since the second periodic report, were presented and will be reported in the final report.

Particular attention was given to D11.7, since, while the MISTRA general model v9.0 was released at the beginning of the project, the snow version of the MISTRA model was eventually not developed.

→ **For the final report, each partner involved needs to write a paragraph (20 lines) and a figure and send it to Gordon M., before July 15th.** The information needs to be simplified and self-explanatory, since the report does not need to be too technical.

Jean-François D.: this WP has allowed to achieve such progress in the modelling tools, which are now available for the users of TNA projects. These are clear examples of the kind of services which will be provided in the framework of the future research infrastructure.

Gordon M.: These tools need to be advertised both inside the chamber community and outside, as they can be useful for research in the real atmosphere.

ACP-AMT-GMD Special issue redistribution and closing

As agreed in February '21, the remaining budget dedicated to the funding of papers in the special issue, has been redistributed (see presentation). As for July 1st, if some budget is still unspent, it will be used by each partner in need of funding a paper, without any additional criteria.

It is also agreed that the special issue funding will be possible until the end of 2021. The special issue will remain open until the end of 2022 (to be agreed with the special issue editors, if there are any papers coming in at that moment).

WP3: summary of the main additional achievements of the last RP - Astrid Kiendler-Scharr (FZJ)

The main achievements from each partner since the second periodic report, were presented and will be reported in the final report, in particular the results from the latest intercomparison campaigns. In addition, particular attention was given to the advancement of the handbook. The handbook will be published by Springer under the title of "A Practical Guide to Atmospheric Simulation Chambers", dedicated to Dr. Ian Barnes. The book will be published online in open access, with a print-on-demand paying option.

It is suggested to have a press release once the book is published. Andrew R. suggests writing a perspective article on a general open access journal, such as Environmental Sciences or AST. The advertisement is also usually done by the publisher.

In order to make sure that the book remains a valid and updated tool, it will be essential to have new editions every once in a while, so that the book becomes a sort of wiki.

Concerning the legacy of the project, besides the book, Hartmut H. suggests writing a short paper on the conclusions of EUROCHAMP-2020.

→ For the final report, each partner involved needs to write a summary of the achievements before July 15th:

- **For the intercomparison campaigns: 1 page + 1 figure**
- **For the delivered tools: ½ page + 1 figure**

Data submission targets before the end of the project - Bénédicte Picquet-Varrault (UPEC)

So far, 956 new data have been uploaded to the DC, out of 1000 new experiments foreseen at the beginning of the project. Some additional statistical information on the usage of the data in the DC is also presented.

Concerning the LADP pillar, it is agreed that the condensed phase rate constant category should be removed, as no data were provided.

Future of the EUROCHAMP community

The issues discussed are the following:

- Continuing sharing chamber data and developing the DC;
- Keeping the work on chambers' specific technology and methods. The ACTRIS framework is not completely comprehensive of our scientific perimeter, but it is surely the key framework, to be able to continue this work;
- Keeping the consortium "alive" (through the ACTRIS Simulation Chamber Committee, ASCC);
- Maintaining the access programme active;
- Maintaining our networking activities.

The ASCC has the purpose to provide guidance to the HO and the RI Committee on the specificities of simulation chambers, as well as monitoring and ensuring the compliance with the procedures and standards for the operation of chambers.

The next step for it to become operational, is the choice of the six simulation chamber experts who are foreseen in the Committee Terms of Reference. The choice needs to represent the diversity and the geographical coverage of the chambers community. Matthew Johnson (Airlabs) informs the community that very recently Denmark received some national funding to be part of ACTRIS, so they are interested in applying to have NFs in the RI.

Paolo L. strongly invites everyone to make sure that young people are part of the ASCC, to prepare the leadership transfer of the RI.

→ It is agreed that the members of the community will suggest names of possible members to Matilde O.

Concerning the external guests, there is no fixed number, so they can be a key way to keep a link with the members of the current chamber community who will not be part of ACTRIS, because of political reasons at national level. The external guest should also include people from outside Europe and outside the topics we currently deal with (e.g. links with health and exposure studies), in order to extend the usual networks.

Other ways to keep the community alive could be regular meetings and workshops. One good example could be the annual occasion of the “Karlhein Becker’s days” meetings, but an effort should be made to extend such occasions to a larger public, and to include colleagues from other parts of the world and from other linked expertises (examples are ASC, or the US-German workshops). A COST action could support such initiatives.

24th June 2021

EUROCHAMP-2020 final scientific conference

The community wishes to organise a final scientific event, as a chance to interact with the project’s users, promote the highlights and breakthrough of the project and It is agreed that the objective itself of an EUROCHAMP final science conference implies that it will be meaningful only if held in the form of a physical meeting.

After considering all the potential advantages and potential difficulties imposed by the pandemics, the community agrees to move the EUROCHAMP scientific conference to spring or early summer 2022. Hopefully, this decision will allow a larger number of people to attend the meeting, and will guarantee an international and scientifically broad spectrum to the conference. Paolo L. specifies that it will be possible to organise such an event in the framework of ACTRIS, with a wider opening to invite users from outside the ACTRIS community, and from other parts of the world. Paolo Prati confirms his availability to host the conference at the University of Genoa, Italy.

Final report preparation

The final report covers the project’s period from 1st December 2019 until 31st August 2021. The deadline to submit the report to the Commission is **29th October 2021**.

The deadline to submit the **technical report** to the Project Office is **17th September 2021**. The PO and the Coordinator will compile and harmonise all contributions into one single report.

The deadline to submit the **financial report** to the Project Office is **1st October 2021**. The PO will review the single reports, double-check with the single administrations, and eventually submit the reports in a centralized way.

Partners declaring more than 325 000€ need to have their costs audited and produce a Certificate of Financial Statements (CFS) together with their financial report. For the concerned partners who do not know how to perform such an audit, the Commission can provide one external auditor.

General Assembly

The quorum is reached, since all the 14 beneficiaries are present.

The current situation in terms of deliverables, milestones, access days and financial status is summarized and presented by the PO.

Concerning a possible redistribution of the project's TNA budget, it is also agreed that:

- Partners having spent less access units and/or less TNA budget than foreseen, will be reimbursed of the amounts declared;
- Partners having spent more access units than foreseen, will be reimbursed a fraction of the additional requested budget, if some additional budget is available.

Concerning a possible redistribution of the project's non-TNA budget, it is also agreed that the redistribution method will be divided in two stages:

- 1) Partners having declared less-or-equal than the foreseen budget will receive what has been declared.

Partners having declared more than the foreseen budget will receive what was planned, summed with the amount calculated at the 2nd stage.

- 2) Partners having declared more than the foreseen budget will receive, in addition, a fraction of the excess funds on a pro-rata basis of their additional declaration.

The General Assembly ends at 11:45 AM.