EUROCHAMP

MEETING MINUTES

EUROCHAMP
(4th Annual Meeting)
May 15-6, 2008

From:	Peter Wiesen	**Company:**	BUW
Issue Date:	June 2, 2008		

To:	Anna Maria Johansson	**Company:**	European Commission
	Jens Hjorth Niels Jensen		JRC
	Theo Brauers		FZJ
	Cornelius Zetzsch		UBAY
	Amalia Munoz Joaquin Valero		CEAM
	Mike Pilling		LEEDS
	Urs Baltensperger		PSI
	Sarka Langer		SP
	Georges Le Bras		CNRS-ICARE
	Harald Saathoff		FZK
	John Wenger		UCC
	Ian Barnes Peter Wiesen Karl H Becker		BUW
	Jean Francois Doussin BenedictePicquet-Varrault		LISA
	Hartmut Herrmann Frank Stratmann Olaf Böge		IfT

Subject: **Minutes of the EUROCHAMP 4th Annual Progress Meeting, May 15-16, 2008, Arona (Lago Maggiore), Italy**

1 ATTENDEES

A full list of the participants is attached (See Annex 1).

2 AGENDA

See Annex 2.

3 CONTENTS OF THE MEETING

Peter Wiesen welcomed the meeting attendants and gave a short project overview

Report on Networking Activity 1 (N1: Raw data analysis, data intercomparison) presented Theo Brauers, FZJ
This activity is focussed on Quality Assurance in Chamber Research

Action: All partners are required to check EUROCHAMP webpage for details of chamber characteristics and measurement capabilities.

There are 2 Deliverables for year 4:
1. Standard experiments:
These consist of standard experiments performed under well-defined conditions. The experimental data should be reported in the EUROCHAMP database – important use of database. Unfortunately no information was sent to Theo – needs to be sorted, see discussion below.

2. Instrument Intercomparison:
Consists of typical chamber experiments with different instruments measuring the same property. Mainly a type of activity at large chamber facilities. Members of the wider atmospheric science community (e.g. field measurements) can join in. Formal and informal intercomparisons have been performed. 12 intercomparisons performed previously.

Action: All partners to send details of publications linked to intercomparisons to Theo for reporting purposes.

2 main activities to report for year 4:
NO_3, N_2O_5 intercomparison in SAPHIR, Julich (10 groups)
Planning Workshop Nov 2006
Measurements June 2007
Data workshop in Nov 2007)

Water vapour intercomparison in AIDA, Karlsruhe (22 instruments)
Planning workshop Jun 2007
Measurements October 2007
Data workshop in May 2008.

Important note: quality assured data are important for the intercomparisons, especially if it is to be loaded onto the EUROCHAMP database.

Note: EDF format worked quite well but more feedback, comments would be appreciated.

Discussion:
Standard Experiments
UCC and PSI have comparative experimental data on SOA formation from isoprene and 1,3,5-TMB (**Action:** UCC will send details to Theo).
UCC, SP, LISA, Bayreuth have comparative data on ozonolysis of methyl styrene (**Action:** Sarka will send details to Theo)
Cornelius to co-ordinate a standard OH relative rate coefficient activity.

Chamber characterisation of HONO sources (paper just appeared in ACPD – Urs will send).

Report on Networking Activity 2 (N2: Standardised data protocol and central database of environmental chamber studies) presented by Amalia Munoz & Joaquin Valero, CEAM
The sole activity in Year 4 was "Improvement of the Database". 373 records in database as of May 2008, some still in old xls format. User statistics available. Users from all over the world. Useful platform for the modelling community. Link with JRA2. Useful platform for intercomparison of SOA formation models. Link with JRA2. Put data from intercomparison campaigns on the database.

Posters presented at Urbino 2007, EGU 2008.
Oral presentations at workshop in Ukraine (US EPA interested in introduction of data from external users, proposed in EUROCHAMP-2)

Technical improvements:
More user friendly via improvements with resource link. Entered data is maintained in the form if an error is encountered. Update option for existing records is now available. Duplicate option for entering data related to an existing record - some fields have to be changed (e.g. resource link). Improvements in web statistics (Distribution of users, most accessed records etc..). Developed several tools (broken links, check edf etc.)

A domain name has been set up: eurochamp-database.es
Web site is promoted via google and open directory project.

What's next?
Focus on security – encryption.
Improve check edf tool to analyze zip content
Avoid automatic applications for new user
Easier lost password recovery.
See all records in one page
Allow updating of records

Discussion:
Feedback is requested from users.
Partners not complying – Leipzig – add Frank to list.
How much more data are needed for year 5?
Decision: Agreed that each partner should submit 40 records in total by end of Dec 2008. Leeds 20.
Theo emphasised that data should be of publication quality…
Should UV spectra of the light source in each chamber be loaded onto database? (possibly have one field in the record for inclusion of an optional spectrum)

Report on Networking Activity 3 (N3: Infrastructure-related workshops) presented by Harald Saathoff, FZK
26 workshops and meetings organised to date (many in conjunction with ACCENT, INTROP).
In Year 4:
NO_3/N_2O_5 intercomparison workshop, Jülich, June 2007 and November 2007
AquaVit (Upper Tropospheric humidity), Karlsruhe, June 2007 and October 2007.
VOC in the urban atmosphere of Europe, Wroclaw, September 2007.
Special session at EGU in Vienna, April 2008.

Workshop reports and associated publications are located on the EUROCHAMP website.

Future activities:
Aquavit data workshop, May 2008.
Radical measurement intercomparison??? (please provide details)
HONO instrument intercomparison. Can this be performed before the deadline of May 2009. One possibility is to request an extension from the EU. It is estimated that a total of 3 weeks is required, including set-up and set-down of instruments. There is money in the EUROCHAMP reserve but can the costs of use of the EUPHORE chamber be covered?
Action: Amalia will organise cost calculations for use of the chamber and send to Peter.

Ozone workshop???? (please provide details)

Final meeting will be a larger event in which people from the wider community will be invited to participate.

JRA1: Development and Refinement of Analytical Equipment
WP2 (Urs Baltensperger)
IfT used PTR-MS on a variety of systems including photooxidation of pinene isomers
1D and 2D HPLC also used.
Detection of organosulfates in ambient and lab produced SOA from pinene.
Used Aerodyne AMS to follow growth of organic aerosol.

UCC developed denuder-filter system for carbonyls and phenols – comparison with PTR-MS.

PSI developed a new inlet system for PTR-MS to measure aerosol and gas-phase – results for pinonic acid in aerosol. Can determine partitioning coefficients directly.
High resolution PTR-TOFMS after thermal desorption of SOA.
OM/OC vs. O/C from CHAOS campaign
Experiments on ^{13}C labelled isoprene photooxidation in presence of organic aerosol from pinene SOA.
Health effects: oxidised aerosol, on-line and off-line LDH and cytokines,

WP3 (Georges Le Bras)
CNRS-ICARE: IMRMS for RO_x measurements – modifications aimed at reduction of artificial OH formation under high NO_x conditions. Adapted for use in the lab and field.
Intercomparison campaign with FAGE at EUPHORE planned for April 2008 has been delayed to July 2008.
Issue with the laser at CEAM needs to be resolved.

WP4 (Peter Wiesen, Sarka Langer)
BUW: Development of HNO_3 detector based on LOPAP technology. In year 4 to test the instrument under different conditions in smog chamber (influence of N_2O_5 in particular).

Excellent correlation with NOAA instrument during intercomparison exercise at SAPHIR. No interference from NO_3.

SP: APCI MS of HNO_3 – improve detection limits to compare with LOPAP.
Increase sensitivity but limited to 10 ppbv.

Intercomparison between the two instruments has not been performed yet. Should it be done given the large difference in sensitivity?
Best thing is to report all of the efforts made and that intercomparison is no longer feasible.

WP5 (Harald Saathoff)
JRC: improvements in data evaluation procedure for single particle mass spectra collected by SPASS. Comparisons between k-means and fuzzy-c-means clustering analysis.

FZK: design and construction of optical particle nephelometer (OPI-PN) for measurements of ice crystals.
Adaptation and improvements to PASS instrument. Deliverable is likely to be delayed.
Instrument tests at other chambers in 2009.

Intercomparison on ozonolysis of methyl styrene and alpha-pinene using a range of off-line techniques. SP obtained interesting results from thermal desorption from filter followed by GC-MS analysis.

UBAY: low temperature kinetics of OH with a number of alkanes and aromatics.

LISA: SFE GC-MS, 15 compounds in indene SOA
SPLAM: DOP particle analysis.
Update on CESAM chamber

IfT: HTDMA – CCNC – LACIS – intercomparison at PSI chamber.

Discussion:
Update on status of the deliverables for each work package necessary with respect to updated DIP, which has to be presented with the 4th annual report.
Need to send Urs info on deliverables 15 and 16.
FAGE / IRMRS postponed to July.

JRA2: Chemical Modelling Applications (Mike Pilling)
WP2
OVOC chemistry:
CNRS-ICARE: absolute rate kinetics of OH + unsaturated alcohols
UCC; O_3 + oxygenated hexane derivatives
BUW: OH/Cl + fluoroesters, Cl + nitrophenols, OH + unsaturated esters
Aromatic chemistry:
UBAY: OH + hexamethylbenzene – evidence for ipso addition.
CNRS-ICARE: O_3 + unsaturated substituted aromatics, kinetics and product studies
BUW: photolysis of nitrophenols and nitrotoluene.
PSI: Mechanisms for HONO formation - model and experiment comparison indicates a wall source of HONO. Observed higher measured HONO than predicted.

- photo enhanced conversion of HONO is very important.
- Surface reactions very important.
- HONO needs to be measured in simulation chambers

Leicester / PSI/ Leeds: identified some new intermediates in 1,3,5-TMB photooxidation.

OVOC database updated and improved by CNRS-ICARE
Action: need to make a link from EUROCHAMP web page (Theo Brauers)
MCM links to IUPAC database very soon
Action: – need to make a link from MCM home page to EUROCHAMP database (Mike Pilling)

WP3
FZK
α-pinene taken as model case.

WP4
Developed a FORTRAN model for the MCM.
Currently being tested and benchmarked against Facsimile – coming to a computer near you soon!!!

Try to develop an "electronic lab book" for searching etc….

Project Co-ordination Issues (Peter Wiesen)

Budget – about €150,000 left
Other costs be covered; Donahue, workshops, final meeting.
About €70k to spend.

Report for year 4: NO AUDIT CERTIFICATE REQUIRED.
Final report: audit certificate is required.

ACTION: All partners to provide a list of publications needs to be provided to Peter and Theo.

Deadlines for 4th Annual Report
Deadline for submission to EC: Tuesday, July 15th, 2008
Report to WP leaders by Monday, June 9th, 2008
Reports from WP leaders to co-ordinator by Monday, June 30th, 2008
Preliminary cost statement to Co-ordinator by Friday, June 27th, 2008
Signed cost statement by Monday, July 7th, 2008
Submission of report Friday, July 11th, 2008

To do stuff for annual report and also deliverable reports.

International Advisory Committee meeting possibly around time of the Vienna workshop in September/October 2008

New proposals
PSI proposal accepted unanimously.

Extension of EUROCHAMP for HONO intercomparison may be problematic with the EC and should be avoided.

Final meeting in mid May, 14 & 15th May in Binz on the Island of Rügen, Germany.

Annex 1: List of participants

No.	Name	Organisation
1 2 3	Peter Wiesen Ian Barnes Karl H Becker	Bergische Universität Wuppertal (DE)
4	Urs Baltensperger	Paul-Scherrer-Institute Villigen (CH)
5	Theo Brauers	Research Centre Jülich (DE)
6	Benedicte Picquet-Varrault	University of Paris / LISA (FR)
7 8	Jens Hjorth Niels Jensen	Joint Research Centre Ispra (IT)
9	Sarka Langer	SP, Boras (SE)
10	Georges LeBras	CNRS-ICARE, Orleans (FR)
11 12	Amalia Munoz Joaquin Valero	CEAM Valencia (ES)
13	Mike Pilling	University of Leeds (UK)
14	Harald Saathoff	Research Centre Karlsruhe (DE)
15	John Wenger	University College Cork (IE)
16	Cornelius Zetzsch	Universität Bayreuth (DE)
17 18	Olaf Böge Frank Stratmann	Institut für Troposphärenforschung (IfT), Leipzig (DE)

Annex 2: Agenda of the 4th Annual Meeting

- Agenda -
EUROCHAMP 4th Year Progress Meeting
JRC Ispra
May 15-16, 2008 – Arona (Italy)

Thursday, May 15, 2008:

EUROCHAMP 4th Year Progress Meeting

13:00 Lunch

14:00 Welcome **- *BUW***

EUROCHAMP project overview and status

14:10 N1: Raw data analysis, data inter-comparison and quality assurance
- Introduction- overview/achievements: ***FZJ (40 min)***
- Discussion, Deliverables, updated implementation plan

14:50 N2: Standardised data protocol and central database of environmental chamber studies
- Introduction- overview/achievements: ***CEAM (30 min)***
- Discussion, Deliverables, updated implementation plan

15:20 N3: Infrastructure-related Workshops
- Introduction- overview/achievements: ***FZK (20 min)***
- Discussion, Deliverables, updated implementation plan

15:40 Coffee break

16:00 JRA1: Development and refinement of analytical equipment
- Introduction- overview/achievements: ***PSI and partners (90 min)***
- Discussion, Deliverables, updated implementation plan

18:30 End of first day

20:00 Dinner

EUROCHAMP 4th Year Progress Meeting
JRC Ispra
May 15-16, 2008 – Arona (Italy)

Friday, May 16, 2008:

EUROCHAMP 4th Year Progress Meeting (ctd).

9:00 JRA2: Chemical modelling applications

- Introduction- overview/achievements: ***ULEEDS and partners (60 min)***
- Discussion, Deliverables, updated implementation plan

10:00 Coffee break

10:15 **Project Coordination issues - *BUW***

- Management issues/financial project status
- Meetings;
- Deliverables; Milestones; updated implementation plan
- Progress report; Men-month; Cost statement; Audit certificate;
- Actions list;
- International Advisory Committee (Next meeting)
- New proposals
- New partners
- Decisions
- Next tasks; next meetings
- Open questions
- AOB

12:00 Lunch break

13:30 **EUROCHAMP Steering Committee Meeting**

14:15 End of the meeting