

### **3<sup>th</sup> TRAPOS Network co-ordination meeting, Madrid, March 4, 1999**

#### **Minutes and conclusions**

##### Agenda:

1. Progress in employment of young visiting researchers
2. Discussion of the Mid-term evaluation procedure
3. Integration of the work in the Network - exchange and utilisation of the results from other teams, data for model evaluation
4. Joint publications

##### Present at the meeting

Ruwim Berkowicz, NERI, DK  
Matthias Ketzler, NERI, DK  
Finn Palmgren, NERI, DK  
Eric Savory, U.Surrey, UK  
Michael Czech, U.Surrey, UK  
Evgeni Fedorovich, U.Karlsruhe, DE  
Petra Kastner-Klein, U.Karlsruhe, DE  
Mathias Rotach, ETHZ, CH  
Jana Lataste, ETHZ, CH  
Jean-Francois Sini, ECN, FR  
Petroula Louka, ECN, FR  
Achim Lohmeyer, IBAL, DE  
Giulia Clai, IBAL, DE  
Nicolas Moussiopoulos, LHTEE, GR  
Georgios Theodoridis, LHTEE, GR  
David Carruthers, CERC, UK  
Kees Van den Bosch, TNO, NL  
Michael Schatzmann, MIHU, DE  
Bernd Leitl, MIHU, DE

##### Ad. 1.

Significant progress in employment of young visiting researchers was made during the first two months of 1999. All the young visiting researchers present at the meeting made a short presentation of them self.

A table summarising the present situation is given below.

Participant	Young researchers financed by contract so far (man-months)			Contract deliverable of young researchers to be financed by the contract (man-months)		
	Pre-doc (a)	Post-doc (b)	Total (a + b)	Pre-doc (a)	Post-doc (b)	Total (a + b)
1.NERI	12	0	12	0	24	24
2.U.Surrey	12	0	12	0	24	24
3.U.Karlsruhe	6	12	18	6	18	24
4.ETHZ	0	24	24	0	24	24
5.ECN	0	22	22	0	24	24
6.IBAL	18	0	18	0	18	18
7.LHTEE	0	30	30	0	30	30
8.CERC	0	12	12	0	24	24
9.TNO	0	0	0	0	36	36
10.MIHU	0	24	24	12	24	36
<b>TOTAL</b>	48	124	172	18	246	264

The following young visiting researchers are presently known to be employed within the network:

Name	Nationality	Employed by	Employment period <sup>1</sup>
Peter Sahn	DE	LHTEE	01.02.1998-31.07.2000
Petra Kastner-Klein	DE	ETHZ	01.05.1999-31.10.2000
Michael Czech	DE	U.Surrey	01.03.1998-29.02.2000
Jana Lataste	CZ	ETHZ	01.09.1998-28.02.1999
Matthias Ketzler	DE	NERI	01.09.1998-31.08.1999
Petroula Louka	GR	ECN	01.01.1999-31.10.2000
Emmanuel Le Huu Nho	FR	MIHU	01.02.1999-31.01.2000
Christian Chauvet	FR	MIHU	01.03.1999-29.02.2000
Jose Ribeiro	PT	U.Karlsruhe	01.02.1999-31.07.1999
Silvana Di Sabatino	IT	CERC	01.02.1999-31.01.2000
Giulia Clai	IT	IBAL	01.06.1999-30.11.2000

<sup>1</sup>Tentative only.

## Ad. 2.

For each network contract exceeding ECU 0.75 million in value, the Commission will conduct a mid-term review, in which the implementation of the contract will be assessed, in particular its training and networking aspects, the structure of the network and the contract's work programme will be reviewed and, if necessary, contract modifications defined. Networks which are judged by the Commission to have performed unsatisfactorily in the mid-term review may have their contracts terminated.

The procedure of the mid-term evaluation was discussed during the meeting. All Participants have received (*by e-mail*) a copy of the Mid-term Evaluation Report Guide, where the procedure is described in details. Jane Shiel, the TMR Project Officer, has recommended Dr. Sylvain Joffre from the Finnish Meteorological Institute, who was one of the original evaluators of TRAPOS proposal, to carry out the Mid-Term Review (*if no objections from the Network*).

All the participants present at the meeting agreed on suggesting the 15 October - 16 October as a preliminary date for the Mid-term evaluation meeting ( *in connection with the Harmonisation Conference and COST 715 meeting in Rouen, France* ). This date is, however, not acceptable for Silvain Joffre, nor for Jane Shiel. The latest development is, that after discussing this matter with her bosses in Brussels, Jane Shiel has suggested to postpone the evaluation meeting until the end of January 2000. Postponing of the evaluation meeting was approved ( *by e-mails* ) by all TRAPOS participants.

A mid-term report, summarising achievements of the Network, must be prepared prior to the evaluation meeting. In order to give the network co-ordinator the chance to finish this report in a reasonable time, all the necessary written material must be submitted to the co-ordinator latest two months before the date of the meeting .

Ad. 3.

#### *Podbielskistrasse project*

Achim Lohmeyer has outlined the ideas of his initiative on a model evaluation exercise using a street in Hannover, the Podbielskistrasse, as a case study. This exercise was originally thought as an internal German study, but Achim forwarded the idea that also TRAPOS modelers should make their participation, as a part of the network activity. The project is approved and financed by the German organisation BW-Plus. The Podbielskistrasse project aims to test the procedures used for evaluation of street traffic pollution utilising standard available data only and the procedure, the participant is used to apply. In the case of joining the exercise, the contribution from TRAPOS would not only be in the form of participation in the model calculations, but also in evaluation of the results. The project is a kind of a “blind test”, because detailed measurements from the site (traffic counts, meteorology, background pollution and street pollution) will first be available after end of the modelling work. The deadline for providing the results from model calculations is end of May, 1999.

A discussion arised during the meeting on which models are suitable for such an exercise, and whether this exercise will provide a sufficient scientific insight in the problems connected with traffic pollution modelling.

The arguments against using the Podbielskistrase as a TRAPOS-activity were:

- there are several other, better datasets available for model testing; the Podbielskistrasse data are incomplete (e.g. no continuous traffic counts, no nearby background concentration data, no background ozone for NO<sub>2</sub> calculations, percentiles cannot be calculated as a linear superposition of background and street contributions, e.t.c.)
- there will be a little, or no possibility to figure out what is the reason for a discrepancy between model results and measurements, at least not before the detailed measurements are available.
- the advanced CFD-models are not designed for such a study (difficult to calculate annual averages and percentiles)
- no detailed wind-tunnel measurements are available yet

The arguments in favour of participating in the exercise were:

- the “Podbielski-case” is a real case, a case that environmental consultants have often to deal with and what the environmental authorities expect from the consultants.
- the study can help to reveal weaknesses and practical problems in model applications for environmental assessment; including the input data requirements; for German partners it is also a test of how well the procedure recommended by the German Guidelines performs compared to other procedures.
- as a “blind test”, the study is good for model testing before they are “tuned” to a particular application.

Finally it was agreed that Podbielskistrasse should be considered as a TRAPOs-activity, but under special conditions. The Participants will consider which models (and with what kind of output) should be applied for this exercise. Most probable is that the “practical” models, i.e. OSPM, CAR, UK-ADMS and MISKAM (German Guidelines) will be used for the whole exercise, while the more advanced CFD models will be used for case-study calculations only. Achim Lohmeyer, Matthias Ketzel and Ruwim Berkowicz will elaborate a paper summarising the ideas.

An idea arised after the meeting: !To organise a workshop on the Podbielskistrasse study during the “Harmonisation Conference” in Rouen!. *More about this idea in a separate note later.*

#### *CFD evaluation exercise*

There was a broad agreement on that more effort should be made within TRAPOs on making model tests and evaluation using the same, well defined test cases in all groups. Data for such tests are available from field measurements as well as wind-tunnel measurements. Matthias Ketzel, Jean-Francois Sini and Georgios Theodoridis did make a selection of such data:

- single step cavity from Eric Savory’s wind-tunnel experiments ( U.Surrey)
- multi-street canyons wind-tunnel measurements by Stylianos Rafailidis (MIHU)
- Göttingerstrasse field and wind-tunnel measurements

Options for next test:

- CEDVAL data from Hamburg wind-tunnel
- Jagtvej, Copenhagen

All models should be tested on these data and the results evaluated. All necessary input data for model calculations will be prepared by MK, JFS and GT and redistributed to the participants ( *shell we make them available on the TRAPOs web-site ?*).

#### *Next TRAPOs-workshop*

There is need for a longer meeting (workshop) during which the scientific aspects of the TRAPOs project can be discussed in details; not using the time on organisatory aspects. It was suggested to organise such a workshop in connection with the SATURN meeting in Aveiro, Portugal. The date for the SATURN meeting is 23-24 August. The TRAPOs workshop can be on 24 August (might be also 25 August?). Nicolas Moussiopoulos has promised to contact the local organisers. The subject of the workshop will be:

- discussion of the results of CFD-evaluation exercise
- the traffic induced turbulence ( *a hot subject!*)

Remember the Rouen Harmonisation Conference in October (11-14 October) with a Podbielskistrasse workshop and perhaps a co-ordination group meeting on mid-term evaluation in January.

Ad. 4.

Joint publications in international refereed journals is the main criteria of the success of the network. Such publications should be promoted.

**NERI, 31. March 1999**