

## **II. Scientific Report**

### **II.A. Results achieved during the period from 14 September 2007 to 15<sup>th</sup> of May 2008**

The Action started in mid-September 2007. It has been structured to three working groups:

1. WG1 Pollen production and release,
2. WG2 Pollen atmospheric distribution and interaction
3. WG3 System application, utilization, health impact, and collaboration with end-user community

The Action has elected the Core Group:

- Chairman Adj.Prof. Mikhail Sofiev, Finnish Meteorological Institute, FMI,
- Vice-chair Prof. Karl-Christian Bergman, Allergy Centrum Charite (also selected as a Grant Holder), Germany
- WG 1 chair Mr. Arnold van Vliet, Wageningen University, the Netherlands
- WG 2 chair Prof. Heidrun Behrendt, Technical University of Munich, Germany
- WG 3 chair Prof. Jean Emberlin, University of Worcester, UK
- Web master of the Action Dr. Tommaso Torrigiani Malaspina, University of Florence, Italy

The overall duration of the Action is four years. According to the work plan of the action, the first year is mainly devoted to information collection, establishing contacts and the Action shape-up.

A dedicated effort has been made to ensure links with all major European initiatives related to the Action topic. In particular, working contacts have been set with European Aeroallergen Network, COST-725, COST-ES0602, European Phenological Network.

The Action presentation is currently includes the Web site <http://www.eupollen.eu>, a leaflet and a poster.

Mutual involvement with the closely connected COST ES0602 resulted in the first Action STSM adopted for summer 2008. This is a continuation of statistical study of the observational data, which was started for conventional air pollutants within that Action.

An overall goal of the Action identified during the first meetings of MC and the Core Group is to shape-up an integrated system that would combine the knowledge about the whole chain starting from pollen production and release, distribution, and health impact. An emerging area is the study of the pollen allergens, their behavior in the atmosphere and relations with concentrations of pollen and conventional pollutants.

The Action participated in several events by supporting the attendance of the key experts and students to these meetings and advancing their programmes. In particular, the 8<sup>th</sup> European Pollen Symposium had a large representation of the Action members. Further conferences in 2008 that will be supported by the Action are: European Symposium on Aerobiology (ESA), European Conference on Ragweed, and International Congress on Biometeorology. The next MCM will be linked back-to-back with the ESA.

One of major goals of the Action recognized during the MC discussions is to promote better understanding of airborne allergy and its connections with pollen, allergens and conventional air pollutants. As a first step in this direction, the Action has supported the NetFam (Nordic Network on Fine-scale Atmospheric Modelling) Summer School on 7-15 July 2008, in St. Petersburg, Russia. The title of the school is "Integrated Modelling of Meteorological and Chemical Transport Processes / Impact of Chemical Weather on Numerical Weather Prediction and Climate Modelling". The co-organizers are NetFAM, TEMPUS TACIS project "Development of a competency-based two-level curricula in meteorology", and COST ES0602 (<http://netfam.fmi.fi/YSSS08/>) and COST ES0603. Five students and two teachers from the Action will take part in the school and one of exercises will be dedicated to the pollen episode of 2006.

Apart from the organizational and planning, we have started the collection of all related materials – papers, reports, etc – with a subsequent idea of a comprehensive review of the state-of-the art to be published as a report but also as a potential peer-reviewed paper(s). To-date, about 100 titles are collected in the protected page of the Action Web site and the reviewing procedure is getting the steam.

## **II.B. Dissemination of results**

### Conferences, Workshops and Training Schools (list and programme)

- The 8<sup>th</sup> European Pollen Symposium (Bad Lippspringer, Germany) with a large representation of the Action
- European Symposium on Aerobiology (Turku, Finland) with MCM-3 back-to-back with this conference
- European Conference on Ragweed (Bolongja, Italy)
- International Congress on Biometeorology (Tokio, Japan)

### Training Schools

NetFam (Nordic Network on Fine-scale Atmospheric Modelling) Summer School will be organized on 7-15 July 2008, in St. Petersburg, Russia (details above in section II.A.).

### Web site (description)

The action web site is in operation at <http://www.eupollen.eu>. The web site contains basic information regarding the action, links to the corresponding official COST office web site, information from previous meetings, future calendar, etc. The web site is continuously updated and maintained by the Web Master.

### Scientific and Technical cooperation

The Action includes practically all pollen-related organizations and the key scientists in Europe and has representatives from all main initiatives in this area: COST-725, ESA-PROMOTE, GAS, etc. In particular, we have contributed to the Implementation Group of

GAS (the WG 3 on in-situ observations), where the European Aeroallergen Network has been recognized as one of the potential data providers for the future GMES Atmospheric Service.

Contacts have been established with the Ragweed Discussion Group that was initiated at the 2007 Symposium of the Pan American Association for Aerobiology (PAAA) held at the Pennsylvania State University. At present a new ragweed forecasting project is being established in the US and several members of the MC are invited as external participants.

## **II.C. Self evaluation.**

Overall, the Action has a pretty quick start.

We have managed to conclude the bulk of organizational activities, work-planning and at-hands-inventory by spring 2008 – almost half a year ahead of schedule. Three working groups have been formed and their directions have been mainly determined taking into account both MoU-stated goals and deliverables of the Action and the actual list of participants.

Participation at various events, such as conferences and symposia, was so active that MC had to introduce limitations and strict prioritizing in order to keep the Action budget under control and leave sufficient resources for the core activities.

The main difficulties we faced so far are twofold:

- lasting delays of conversion to Grant-Holder system: the GH organization has been selected already at the first MC and de-facto works as the Action secretariat but has no official or financial support.
- the diversity of the problems related to pollen and, more generally, airborne bioallergens, is huge, much wider than it was anticipated during the proposal writing. That posed strong challenges to the WG leaders and all MC members to keep the Action sufficiently focused, and all emerging problems, links and cross-cutting issues well-prioritized.