



## **ANAEE Workshop: September 2-3-4 in Paris**

### ***Scientific stakes in continental biosphere sciences. Which research infrastructures do we need to face them?***

#### ***General scientific and strategic aims***

Continental biosphere sciences have to face the challenges of global changes resulting from both the climatic changes and the modifications of land use and management systems induced by human activities. Both the responses of continental ecosystems to and their potential contribution for mitigation and attenuation of these changes are essential questions addressed to scientific community. Interactions of continental ecosystems with atmosphere and hydrosphere are important scientific issues for predicting future trends of the planet. As compared to oceans, continental biosphere is a more complicated compartment of the planet because of the large range of ecosystems, soils and climates, and because of the great interferences of the majority of these ecosystems with human activities. The diversity of the continental ecosystems led to a large fragmentation of continental biosphere scientific community in disciplinary research: agronomy, forestry, soil science, hydrology, functional ecology, population and community dynamics etc... Nowadays, for facing the global changes and coupling environmental and biodiversity problems addressed by society, the continental biosphere community has to develop more integrated and inter-disciplinary approaches.

For that it appears important to create in Europe a network of integrated experimental platforms for continental ecosystems analysis that would allow:

- an integration of disciplinary researches within a more holistic approach of the functioning of each of the main ecosystems in relation with climate and anthropogenic forcing
- a comparative approaches across the main continental ecosystems in order to analyse their spatial integration at local and regional scale
- a coupling between biogeochemical cycles analysis and functional biodiversity in order to predict ecosystem functioning evolution and ecosystems services outputs under different global changes scenarios.

#### ***ANAEE Workshop objectives***

The ANAEE Workshop held in Paris on 2<sup>nd</sup> 3<sup>rd</sup> and 4<sup>th</sup> September 2008 objectives are:

- to develop a scientific vision for the needs in integrated infrastructure for research in continental ecosystems.
- to have a large brainstorming discussion for the type of future research infrastructure necessary to develop in Europe
- to present and discuss the ANAEE concept as one example of research infrastructure
- to identify the main integrated research infrastructure already existing on the different types of ecosystems across Europe
- to develop the interactions between ANAEE and other EU Infrastructures as LIFEWATCH and ICOS for complementary approaches.



## Proposal schedule for the ANAEE Workshop on September 4/5/6 2008

### Tuesday 2<sup>nd</sup> September

8:00-9:00: Welcome of participants and registration

9:00-9:15: Welcome address and objectives of the ANAEE Workshop: (Gilles LEMAIRE, France)

9:15-9:45: Presentation on Research Infrastructure Programme in EU FP7  
Anna Maria JOHANSSON (EU Commission)

9:45-10:30: Keynote conference: *“Major challenges and stakes for researches in continental biosphere”*  
Profs Stephen KLOTZ and François BUSCOT (Helmholtz Research Center, Germany).

10:30-11:00: Coffee break

10:45-11:30: Keynote conference: *“Importance of long term studies for environmental and ecological studies”* Dr Donald Wayne REEVES (USDA, Watkinsville, Georgia, US)

11:45-12:10: The ANAEE Infrastructure Concept for continental ecosystem research:  
Dr Jacques ROY (CNRS, Montpellier, France)

12.10-12:30: The ANAEE Research Infrastructure Design Study:  
Dr Gilles LEMAIRE (INRA, Lusignan, France)

12:30-14:00: Lunch

14:00-16:30: Four parallel workshop sessions:

*“Major scientific questions in ecosystem studies. Which type of research infrastructure do we need to face them?”*

- **Session 1.1:** Up-scaling process in space and time: coupling short term processes with long term evolution of Ecosystem: integration from local scale and landscape and catchment.  
Chairman: prof Les FIRBANK (North Wyke Research, UK)
- **Session 1.2:** Integrating and coupling different biogeochemical cycles and environmental fluxes under global change scenarios  
Chairmen: Jose A GONZALEZ-PEREZ and F.J.GONZALEZ-VILA (CSIC, Sevilla, Spain)
- **Session 1.3:** Integrating and coupling ecosystem functioning and population and community dynamics.  
Chairmen: Prof. Wolfgang WEISSER (University of Jena, Germany) and Dr Jacques ROY (CNRS, Montpellier, France)
- **Session 1.4:** Predicting ecosystem behaviour under environmental and socio-economic changes.  
Chairman: Dr Andy MacDONALD, Rothamsted Research, UK)

16:30-18:00 Report of the different sessions and discussions



## Wednesday 3<sup>rd</sup> September

- 9:00-9:30: An overlook of existing research infrastructures for continental ecosystem studies across Europe. Results of the ANAEE e.enquiry and discussions:  
Dr Gilles LEMAIRE (INRA, Lusignan, France)
- 9:30-10:00: French strategy for observation and experimentation infrastructure for environment  
Ministère de l'Enseignement Supérieur et de la Recherche (France)
- 10:00-10:40: An example of integrated network of ecosystem studies in Spain: NOA:  
Dr Elena MANEIRO FRANCO (Spain)
- 10:40-11:10: Coffee Break
- 11:10-11:50: "Long continued agricultural soil experiments - A Nordic research platform"  
Dr Bent CHRISTENSEN and Jens PETERSEN (Danish Institute of Agricultural Sciences, Denmark)
- 11:50-12:30: Research Infrastructure in forest ecosystems:  
Dr Eero NIKINMAA (Finland)
- 12:30-14:00: Lunch
- 14:00-14:40: Research Infrastructure for aquatic and coastal ecosystems:  
Dr Steven SILBERG (DK)
- 14:40-15:20: Multi-scale Research Infrastructure. Example of the TERENO Network in Germany :  
Dr Heye BOGEMA (Agrosphere, Jülich, Germany)
- 15:20 – 15:50 Coffee break
- 15:50 – 18:00:  
Parallel sessions: *Specification of different types of infrastructures*
- **Session 2.1** *In vitro* Infrastructure: ECOTRON Dr Régis FERRIERE (ENS, France)  
(To be Confirmed)
  - **Session 2.2** *In natura* Long term experimental Platform (Dr. Abad CHABBI)
  - **Session 2.3** *In silico* Database, modelling and information systems (Dr Agus Del prado, North Wyke Research, UK)
  - **Session 2.4** Analytical Platforms (Prof. Alessandro PICCOLO)
  - Session 2.5 Others...
- 19:30: Workshop dinner



## Thursday 4<sup>th</sup> September

9:00-11:00: Report of the workshop sessions 2, and discussions

11:00-11:30: Coffee break

11:30-12:00: Presentation of the LIFEWATCH project and its possible interactions with ANAEE  
*The name of the person will be define later*

12:00-12:30: Possibilities of coupling ANAEE infrastructures with hydrological studies networks:  
NOHA project  
Prof Harry VEREECKEN (Helmholtz Research Center, Jülich, Germany)

12:30-14:00: Lunch

14:00-14:30: Presentation of the ICOS project and its possible interaction with ANAEE  
Dr Philippe CIAIS (France)

14:30-15:00: Synthesis of the workshop and future action plan for ANAEE  
Dr Gilles LEMAIRE

15:00 END

## Practical Information

The meeting will take place in a congress center in Paris. Please find below a link.

<http://www.cap15.com/>

## Transportation

Please find below an access plan.

[http://www.cap15.com/plan\\_daces-26-10-1-art.html](http://www.cap15.com/plan_daces-26-10-1-art.html)

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