Title :	**Session 3a + 4b - Field Scale Manipulation**
Time :	**Tuesday 10 am – 12 am + 2pm - 3.30 pm**
Chair :	Claus Beier
Attendees :	Claus Beier, DTU
	Bruce Hungate, Northern Arizona University, USA
	Per-erik Karlsson IVL Gøteborg, Sweden
	Håkan Pleijel, University of Gothenburg, Sweden
	Rocio Alonso CIEMAT, Spain
	Ignacio Gonzalez Fernandez, CIEMAT, Spain
	Teis N. Mikkelsen, DTU, DK
	Lucy Sheppard CEH Edinburgh, UK
	Felicity Hayes CEH Bangor, UK
	Gina Mills, CEH Bangor, UK
	Juergen Burkhardt, Bonn University, Germany
	Shyam Pariyar, Bonn University, Germany
	Sonja Vidic, DHMZ, Croatia
	Riccardo Marzuoli, Catholic University, IT
	Giacomo Gerosa, Catholic University of the Sacred Heart, IT
	Elena Paoletti, IPP CNR, Florence, Italy
	Christof Ammann, Agroscope ART, Switzerland
	Lisa Emberson, Stockholm Environment Institute, University of York
Minutes by :	Claus Beier 3

Aim To create overview within C3 and to agree common and coordinated action among data mining, experiments and modelling

Presentations: One per WP - WP9-WP13

Topics discussed with Issue, decisions/conclusions and actions

WP9 - Data mining (See also: WP12 - Novel thresholds)
- Template for data mining report.
  Action: Gina Mills will circulate draft before next C3 meeting
- Identify exp. data sets on air pollution effects.
  Action: Identified Ozone effects: Finland? (Lucy Sheppard), ICP forest (Gina Mills), Swedish (with some reservations) (Per-Erik Karlsson), C3 data All), Swedish (Håkan Pleijl), Spain (crops ??), Italian crops (Giacomo Gerosa), Swedish semi natural systems (Håkan Pleijl). More to be added at next C3 meeting.
- Nitrogen is ALSO important!! May be other important datasets to highlight N.
- What about peatlands and what about climate change alone??
  Action: Concentrate with O3, N and climate to start with. Gina Mills will start overview process - interact with Lisa Emberson.

WP10 - Experiments

- Interaction with C1 - flux measurements?
  Action: See minutes from S6b session
- Experimental protocol and documentation
  Action: Template to be circulated by Claus Beier November 2011
- Data protocol on methodologies for parameters to be collected
  Action: Will be discussed at next C3 meeting
- Data management
  Action: Claus Beier will discuss with data managers and decide a logical process.
- Potential for new "add on" experiments or measurements within ongoing experiments.
  Action: Claus Beier provide inputs from C1 and further discussion at next C3 meeting
- Crop choice for 2012 - Italy (shrublands or forest?)
  Action: Forest seems to be the choice for 2012 - Fagus is OK

WP11 - Novel processes
- Data protocol and data provision from experiments
  Action: Follow WP10 approach. To be decided at next C3 meeting
- Include Castelporziano as Eclaire site - for BVOC.
  Action: Claus Beier discuss with Mark if we need a formal acceptance
- Species choice in Italian controlled experiment (would like to avoid wheat and instead use tobacco or bean as "non emitting species").
  Action: Elena Paoletti decide after discussion with Gina Mills and Lisa Emberson
- Aerosol measurements at aerosol site ??
  Action: See decision in session S6b
- Several discussion points at next C3 meeting: Move measurements at Whim on GHG and C from high N dose (as it is now) to lower N dose (24 kg/ha). Autochamber priorities at Whim - Multilayer canopy problem - field scale ozone dosing.
  Action: Will be discussed at next C3 meeting.

WP12 - Novel thresholds
- Identify data sets relevant for threshold work (Input parameterization, Evaluation, Standard metods to make derivation).
  Action: Lisa Emberson will prepare identification process before next C3 meeting
- Define response parameters (imidiate and long term (WP18 discussion)
  Action: Lisa Emberson will initiate process to be discussed further at next C3 meeting.
- Approach to data sets: Harmonised (many sites even if data quality may be smaller) or distributed approach dependent on data quality (few good sites).
  Action: Lisa Emberson will prepare discussion at next C3 meeting.
- Review of key modules in models relevant to WP12 (e.g. how are certain plant traits modeled) and time aspect in measurements and modeling (e.g. related to accumulated response dynamics).
  Action: Lisa Emberson will prepare discussion at next C3 meeting
- Threshold review - various historical or scientific approaches to use and define thresholds.
  Action: Lisa Emberson will prepare discussion at next C3 meeting

WP13 - Modelling
- Analyse suite of models for potential prioritization
  Action: Chris Evans will start process. Some draft overview to be circulated before next C3 meeting.
- Provide prioritised wish lists for parameters to measure.
- What will we model (drivers and responses) - how do we make the decision - linked to C4
  Action: Chris Evans will discuss in C3/C4 session and prepare follow up discussion at next C3 meeting
- Evaluate match between ecosystems and models (which systems can be modeled?).
  Action: Chris Evans will initiate an email discuss, inputs from Claus Beier and further discussion and decision at next C3 meeting

- Essential data needs (Provide prioritised wish lists for parameters to measure) - drivers as well as responses.
  Action: Modellers provide draft input to experiments about potential data wish lists (before meeting to serve as discussion stimulator)
- What are the needs for further model development.
  Action: Chris Evans will provide initial views at next C3 meeting with inputs from C4.
- Choice of models and sites (C3/C4 decision).
  Action: Chris Evans will provide initial views at next C3 meeting with inputs from C4.

Decisions

Action	Due	Who
Organize a meeting ASAP to discuss detailed plans for experiments, modeling and data mining.	1st November (decision) – meeting before 1st March 2012	Claus Beier will take initiative
Specific matters needed for the preparation of the meeting – see above	Meeting	See above