

## Minutes GHG-Europe SC-Telecon

Thursday, 23 February 2012, 16:00-17:30

**Participants:** Axel Don, Annette Freibauer, Astley Hastings, [Barbara Michel], Michael Obersteiner, Pete Smith, Enrico Tomelleri, Nicolas Viovy

### Top 1: Project Status/Deliverables

#### Postponed deliverables:

- D1.6: Complete driver maps for agricultural management practice for past to present
- D1.8: Updated driver maps of application rates from inorganic and organic fertilizer in agricultural systems since 1950 for European level
  - ➔ All products (crop rotation, intercrops, fertilizer amounts, types and time of application) are ready by the end of March and are presented in a back to back meeting (or joint session) before the TERRABITES (COST action ES805) workshop “Land use in the earth system and modelling of its effects on climate”, on 20. March 2012 in Potsdam.
  - ➔ All driver maps are submitted to the MPI-BGC driver map data base (Enrico Tomelleri).
  - ➔ April – September 2012: testing by the GHG modelling groups.
- D1.1: Workshop on recent and past agricultural management (tillage practice, fertilizer application, harvest rates)
  - ➔ The workshop is split in two, one mentioned above and a validation workshop organised by IIASA in fall 2012.
  - ➔ GHG-Europe partners and externals are invited to discuss the validation of the driver maps.
- D1.2: Complete European harmonized driver maps and time series for natural drivers including direct and diffuse radiation for past, present and future
  - ➔ This task, although rather minor, has proven much more difficult than expected.
  - ➔ Hourly functions will be ready by the end of 2012.
  - ➔ Since none of the process models working in a big-leaf approximation can actually use this forcing no critical gap for process models in WP5 (and in other WP) is expected.
- D1.7: Complete socio-economic driver maps with high accuracy for 1990-2020 and lower accuracy for 1950-1990
  - ➔ Driver maps are available in the MPI-BGC driver map database.
- D2.5: Complete synthesis of GHGs in peatlands as affected by land management and climate drivers
  - ➔ Results have been included in the updated IPCC “Good practice guidance”
  - ➔ Synthesis paper?
- D5.3: Protocols for land use change and management model evaluation and site simulations in WP 2 and 3

- Currently available input data: climate, N deposition, forest management, LUC (net and growth)
- Agricultural management available after TERRABITES workshop (see above)
- Grassland management data provision for WP5 will be attempted by Nicolas Vuichard (no contractual obligation)
- It was pointed out that for the comparison of sectoral models UABDN (Astley Hastings), CEA (Nicolas Viovy) and IIASA (Michael Obersteiner) should make sure that they run the model simulations at the same sites
- Astley will foster the communication between partners and presents the comparison results at the upcoming annual meeting
- D7.4: Heterogeneous data uncertainty protocol
  - The exchange protocol is defined for the continuous data format (fluxes, meteo) and for ancillary data.
  - The BADM (international standard structure for ancillary data) protocol so far includes uncertainty estimation due to spatial variability only
  - It is planned to include a session for testing and discussion of the BADM at the upcoming annual meeting
- D7.5: Prototype of the QA/QC tools
  - The prototype of the QA/QC tools is ready and is continuously evolving.
  - The new QA/QC procedure has been created in particular for fluxes.
  - This work is a joint GHG-Europe/CarboExtreme activity
- D7.6: Storage of uncertainty meta-data in a standardized form in the project database
  - The template to collect and store meta-data information (instruments type, measurements repetitions, replicates etc.) was tested in the ICOS Demonstration Experiment.
  - An improved version of the metadata form (for data submission) is currently under way and will be ready to be discussed at the annual meeting.
  - The tools and structure to import the meta-data in the database are ready and tested.
- D8.6: Annual policy briefing documents of project results
  - Project outline targeting policy stakeholders has been published in “International Innovation” and is available for download from the project website.
  - IIASA product for EU DG Climate is still not accessible. Michael requests the permission for use within the project.
  - Annette points out that current negotiations are far away from science and thus need little input from GHG-Europe

Due deliverables according to the work plan (until month 26):

- D2.6: Complete and deliver to database at least 20 site years of CO<sub>2</sub> flux data (eddy covariance) from at least 6 different Mediterranean scrubland sites
  - Has been delivered to the project database, but are not suitable to be used for any model

- D2.7: Complete analysis of fire impact on C and N cycles (woody encroachment) over 10 years from 18 experimental burnt sites
  - ➔ Will soon be published
  
- D3.1: Annual datasets of GHG fluxes at site level from six selected regions
  - ➔ Lateral fluxes (farm gate budgets): ETH has collected updates from each region.
  - ➔ Han will discuss with Pete in advance of the annual meeting how to do some upscaling with the sector models and how for the rest.
  - ➔ Data collection is okay.
  
- D3.2: Magnitude and variability of GHG fluxes at site level from six selected regions
  - ➔ Analysis is ongoing. Results should be ready for Romania meeting.
  
- D3.3: Complete compilation of existing data from flux towers and chambers, biomass inventories and soil C stocks of the 6 data rich regions
  - ➔ Inventory is ready for the regions. Deliverable is ready in the next few weeks (before Romania meeting). Some of the high resolution data is non-country specific, e.g. Corinne, while this facilitates inter comparison the expectation was that there would be more HR data available.
  
- D3.4: Database of high resolution meteorological data for six selected regions
  - ➔ For some regions (NL, France) this is available. For others we would use the WP1 data. (see also D3.3 note).
  
- D4.2: Complete attribution analysis for each plot scale site from previous projects using each sectoral model
  - ➔ Where data is available (agriculture) attribution at plot scale has been done.
  - ➔ CH<sub>4</sub> and N<sub>2</sub>O data from peatlands was so far not available, CO<sub>2</sub> data only from up to 8 sites out of 28.
  - ➔ There is a need to improve the data flow between peatland field teams and modellers
  - ➔ Matthias Drösler (HSWT) will clarify the data collection until the annual meeting and contacts the modeling groups (MPI-BGC: Antje Moffat, Markus Reichstein, UABDN: Pete Smith); he will subsequently organize the data flow between peatland field teams and modellers
  
- D5.6: Delivery of complete functional relationships and spatio-temporal patterns for the future vulnerability analysis
  - ➔ First simulations by CEA will only be ready by June 2012 since the LUC driver maps are not ready, yet.
  - ➔ The work on future projections (WP6) is not affected since this activity runs independently. As constraints LUC driver maps will improve the projections, though.
  - ➔ IIASA (WP6) will work on global scenarios until the end of June 2012. As soon as the LUC driver maps are ready EU scenarios will be prepared until September 2012.

- D7.7: First version of the standardized and quality controlled data in the database  
➔ The first version will be ready in time to discuss at the annual meeting.

### **Top 2: Cross-cutting objectives (18 month work plan, 19-36)**

- Along with these minutes everyone receives the feedback from (almost) all partners regarding their contribution to the cross-cutting objectives
- Main themes for synthesis:
  - 1) Temporal variability
  - 2) Attribution (agriculture and forest)
  - 3) Data coherence (uncertainty analysis, data aggregation) + modelling
- It was decided to invite consortium partners who currently work on synthesis papers for a plenary talk + session chair at the annual meeting  
➔ The coordination collects papers in prep. + planning from all partners and identifies potential authors for high impact papers
- In addition parallel sessions on synthesis will be integrated in the annual meeting program
- Responsible persons for the three themes:
  - 1) Temporal variability: Enrico Tomelleri (MPI-BGC)
  - 2) Attribution (agriculture and forest): Pete Smith (UABDN)
  - 3) Data coherence + modeling: Nicolas Vuichard (LSCE); *not confirmed yet*

### **Top 3: Call for proposals to the scientific community to fill data/science gaps impossible to cover by GHG-Europe**

- Instead of head hunting for externals it was decided to encourage project internal PostDocs to fill gaps  
➔ Identify gaps on the basis of the input on papers in prep. + planning (see above)  
➔ The Steering Committee identifies topics (list of synthesis papers) that should be addressed and ask project partners to invite their PostDocs  
➔ Remaining gaps may be filled by externals

### **Top 4: Annual Meeting 2012**

- Attached to the minutes is the updated program for the annual meeting
- The planned SC-meeting on Tues., 17.04. has been cancelled; instead the SC will have a phone meeting during the week 10.-13.04.
- A data sharing session for data providers and modellers should be included in the program
- Chairs for parallel sessions  
Agriculture: Annette Freibauer (vTI)  
Forest: Ivan Janssens (UA) & Marcus Lindner (EFI)  
Synthesis: still to be decided  
➔ Session chairs are asked to encourage Young Scientists and females to present their work
- Young Scientist Poster Award

- ➔ A book voucher will be granted to the top two posters
- ➔ The SC will invite 3-4 people preferably from outside the project to become jury members

**Top 5: Data use policy & Memorandum of Understanding (MoU) on data sharing between projects**

- The MoU has been accepted by the GHG-Europe and CarboExtreme General Assemblies
- NitroEurope and CC-Tame have terminated hence data sharing must be negotiated on an individual basis. If necessary, please contact the GHG-Europe coordination team for support.

**Top 6: Database**

- Now accessible through the GHG-Europe database:
  - ➔ All driver maps (spatial data) produced in WP1 at
  - ➔ Task 1.1: <ftp://ftp.bgc.mpg.de/pub/outgoing/etomell/GHG-EU/Meteo/>
  - Task 1.2: [ftp://ftp.bgc.mpg.de/pub/outgoing/szaehle/ghg\\_europe/ndep\\_t1.3/deliver/](ftp://ftp.bgc.mpg.de/pub/outgoing/szaehle/ghg_europe/ndep_t1.3/deliver/)
  - Task 1.3: <ftp://ftp.bgc.mpg.de/pub/outgoing/etomell/GHG-EU/landuse/>
  - Task 1.4: <ftp://ftp.bgc.mpg.de/pub/outgoing/etomell/GHG-EU/Forest/>
  - Task 1.6: <ftp://ftp.bgc.mpg.de/pub/outgoing/etomell/GHG-EU/socioeconomics/>
- ➔ The forest database at [http://www.europe-fluxdata.eu/newtcdc2/GHG-Europe\\_home/Data/otherdata\\_ghg.aspx](http://www.europe-fluxdata.eu/newtcdc2/GHG-Europe_home/Data/otherdata_ghg.aspx)