

C4: Ecological responses at European scale: Agreements in view of deliverables in coming year



Agreements in view of deliverables in coming year

■ WP14 deliverables

- D14.4: Model runs using **ECLAIRE scenarios** of future emissions and climate change (**Month 30**) and D14.5: **Ensemble dataset of model runs** to assess the **impact** of combined air pollution and climate change **scenarios on ecosystem C/GHG balance (Month 36)**.

Agreement on

- Model protocol agreed in terms of scenarios for climate change, air quality change and land use change and assess impacts of individual drivers
- Additional individual model assessment
- Use of databases for regional scale model validation

Agreements in view of deliverables in coming year

- Agreements that all model runs will be made with:
 - one combined Eclaire climate and emission scenario up to 2050,
 - Using original climate data at hourly or daily resolution (no bias correction)
 - assuming no land use change
 - assessing individual impacts of changes in CO₂ exposure, O₃ exposure, N deposition and climate

Agreements in view of deliverables in coming year

- Individual models will assess impacts aspects not included in the intercomparison, including:
 - Running the models up to 2100 or longer.
 - Including results from various climate models.
 - Comparing impacts of original and bias corrected precipitation and temperature data at daily resolution.
 - Accounting for changes in land use.
 - Accounting for impacts of a changing forest age structure and forest management.

Agreements in view of deliverables in coming year

- Validation data agreed upon are:
 - GPP estimates for Europe from interpolation of flux tower data by Beer et al., (2010). Science, 834-838
 - NPP and Rs data from literature reviews on experimental additions, focus on the control sites:
 - Changes in carbon stocks in trees at ICP forest sites

Agreements in view of deliverables in coming year

- WP15 deliverables
 - D15.3: The VSD+ -Props models linked to European databases and MADOC-Multimove to UK databases (Month 30) and D15.4: Assessments of the effects of combined air pollution and climate change scenarios on plant species diversity and soil quality (Month 42)
- Agreement on
 - Focus not only on red list species but also be aware of the loss of typical species

Agreements in view of deliverables in coming year

- WP16 deliverables
 - D16.3: Map of **novel critical N loads (Month 34)** and D16.4: Map of critical N load and critical ozone uptake **exceedances** by comparison with EMEP model results **(Month 40)**.
- Agreement on
 - Use of inverse VSD+ Props approach for deriving CLN at European scale
 - Focus on deriving critical abiotic conditions in view of a relevant species indicator and use of that approach in WP17 (zooming)

Agreements in view of deliverables in coming year

■ Deliverables WP17

- D17.3: Assessments of **uncertainty of critical thresholds for N and their exceedances due to model resolution**. (Month 44).

■ Agreements on harmonization

- Use of one consistent approach for upscaling
- Use of one method to assess CLN (inverse VSD+Props method), also used in WP16. Focus on deriving critical abiotic conditions and gathering hydrological data for UK.
- Use best possible methods to assess high resolution N deposition (not harmonized in terms of used models).

(NB: When NitroScape is available, the method to use)