

**Project Number 282910**

**ÉCLAIRE**

**Effects of Climate Change on Air Pollution Impacts and Response  
 Strategies for European Ecosystems**

**Seventh Framework Programme**

**Theme: Environment**

**D21.3 Agreement on common measurement protocols for components C1  
 and C3**

Due date of deliverable: **01/05/2012**

Actual submission date: **30/10/2012**

Start Date of Project: **01/10/2011**

Duration: **48 months**

Organisation name of lead contractor for this deliverable :  
**FDEA-ART**

Project co-funded by the European Commission within the Seventh Framework Programme		
Dissemination Level		
<b>PU</b>	Public	<input type="checkbox"/>
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	<input checked="" type="checkbox"/>
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission Services)	<input type="checkbox"/>
<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	<input type="checkbox"/>

## 1. Executive Summary

Common measurement protocols for the C1 and C3 experiment networks have been established and agreed in collaboration with the concerned experiment and modelling WPs.

## 2. Objectives:

Establishing common protocols for the C1 and C3 experimental networks (WP1 and WP10) consistent with the data requirements for initializing, driving, and validating the process models in close collaboration with the concerned WP leaders.

## 3. Activities:

Intense information exchange and discussions between modellers and experimentalists took place in the first 12 project months, a.o. in dedicated meetings sessions (kick-off meeting in Brescia, C3 meeting in Dragor, COST/ECLAIRE modelling workshop in Paris) and a list of required and useful data/quantities with temporal resolution for initializing, driving, and validating various process models was produced. Based on this and on standards previously defined in the NitroEurope-IP, the lists of measured quantities and protocols have been formulated (partly site/experiment specific). For the WP1 flux network, standardised leaf wetness measurements, detailed PAR radiation measurement with 1 min time resolution, and measurements of leaf surface ion loading and leaf stomatal conductance (during intensive campaigns) have been included in the measurement protocols based on modeller requirements.

## 4. Results:

The protocols have been agreed and distributed among the concerned participants by October 2012.

## 5. Milestones achieved:

MS43 Protocol for experimental approaches and interactions (WP10)

MS44 Protocol for response measurements (WP10)

MS100 Common measurement protocols for C1 and C3 agreed and distributed (WP21)

## 6. Deviations and reasons:

The completion of the deliverable was somewhat delayed due to the large list of measured quantities especially in WP1 that could be finalized and agreed only at the 2012 General Assembly with all participating groups/PI's present.

## 7. Publications:

n/a

## 8. Meetings:

Measurement protocols for C3 (WP10) have been discussed and drafted at the C3 component meeting in Dragor (Jan 2012). Measurement protocols for C1 (WP1) have been discussed at the COST/ECLAIRE modelling workshop in Paris (Sep 2012) and have been finalized and agreed in a special session of the ECLAIRE General Assembly in Edinburgh (Oct 2012).

## 9. List of Documents/Annexes:

Documents on ECLAIRE homepage (Menu: [Measurements] + [Flux network protocols] ):

'List of measurements' ([http://www.eclaire-fp7.eu/webfm\\_send/151](http://www.eclaire-fp7.eu/webfm_send/151))

'Protocol for PAR measurements' ([http://www.eclaire-fp7.eu/webfm\\_send/152](http://www.eclaire-fp7.eu/webfm_send/152))

'NitroEurope 'cookbook' of measurement recipes' ([http://www.eclaire-fp7.eu/webfm\\_send/153](http://www.eclaire-fp7.eu/webfm_send/153))