

ECLAIRE DATA MANAGEMENT

WP 21.4

Sue Owen
CEH Edinburgh
Chair of ECLAIRE DM committee

Plan.....

Your first questions?

1. Who is there to help me?
2. Is there a DM budget for me?
3. Where can I get help online?

Start-up

1. Where do we start?
2. What is the CEH data centre; who for?
3. What is the JRC data centre; who for?

Launching the DM ship

1. The CEH data centre
2. The JRC data centre
3. All in the same crew

First questions: who is there to help me?

ECLAIRE Data Management Committee

WP21: Clare Howard (CEH)

WP21.4 – DMC Chair: Sue Owen (CEH)	
<i>Informatics support</i>	David Leaver (CEH)
<i>ECLAIRE website</i>	Bill Bealey (CEH)
<i>CEH database Software support</i>	Rory Wilson (Modality)
<i>C1 measurements</i>	Mhairi Coyle (CEH)
<i>C1 “modellers”</i>	Ralf Kiese (KIT)
<i>C2 modellers</i>	Albert Bleeker (ECN)
<i>C3 measurements</i>	Klaus Larsen (DTU)
<i>C3 modellers</i>	Lisa Emberson (YU)
<i>C4 modellers</i>	Adrian Leip (JRC) Gertjan Reinds (WUR)
<i>C5 rep</i>	Wilfried Winiwarter to delegate

ECLAIRE Databases

Data Centre 1 (CEH) Managed by Sue Owen

- All field measurement data
- All lab experiments measurements
- Plot scale simulation results (with zipped code)
- Mined data : eg flux and concentrations – time series
- Functional relationships/parameterisations (metadata and attached file)
- Metadata for each data set

Data Centre 2 (JRC) Managed by Adrian Leip

- Spatial data
- Input data for large scale models
- Data for large scale model verification
- Large scale models: versioned code? and output
- Metadata for each data set
- Metadata about each data set
- Metadata about data sets in CEH database related to JCR datasets
- Metadata about external datasets used by modelling community

First questions: is there a DM budget for me?

ECLAIRE Data Management

ECLAIRE has a budget for each component

<i>Institute</i>	<i>Data Management for component:</i>	<i>Data quality and component DM</i>	<i>Overall DM</i>
NERC(CEH)	C1, and CEH data centre	30K	80K
ULUND	C2	30K	
DTU	C3	30K	
ALTERRA	C4	30K	
IIASA	C5	10K	
JRC	JRC data centre		20K

First questions: where can I get help online?

ECLAIRE Web site (<http://www.eclaire-fp7.eu/>)

Contact Log in Register

éclaire

Effects of climate change on air pollution impacts
and response strategies for European ecosystems



Home

About (+)

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Go

The ÉCLAIRE project [Effects of Climate Change on Air Pollution and Response Strategies for European Ecosystems] is a four year project funded by the EU's Seventh Framework Programme for Research and Technological Development (FP7). The project will be running for 4 years, from October 2011-2015 and involves 39 partner institutions across Europe.

Lecturer/Senior Lecturer/Reader in Land Surface/Vegetation Modelling School of Earth and Environment

Submitted by [Agnieszka Eljasz](#) on Wed, 10/12/2011 - 12:21

Reference: JOB57

Location: Leeds, United Kingdom

Employer: University of Leeds

[Read more](#)

Postdoc position "Remote sensing and nitrogen deposition"

Submitted by [Agnieszka Eljasz](#) on Mon, 09/19/2011 - 11:50

Reference: JOB53

Location: Wageningen, Netherlands

Employer: Earth System Science - Climate Change (ESS-CC) group, Wageningen

[Read more](#)

Kick-off Meeting

Submitted by [Clare Howard](#) on Fri, 08/19/2011 - 12:31

Start: 10/24/2011

EVENTS

« October 2011 »

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

CURRENT POSITIONS

- Lecturer/Senior Lecturer/Reader in Land Surface/Vegetation Modelling School of Earth and Environment
- Postdoc position "Remote sensing and nitrogen deposition"

[\[+\] More jobs](#)

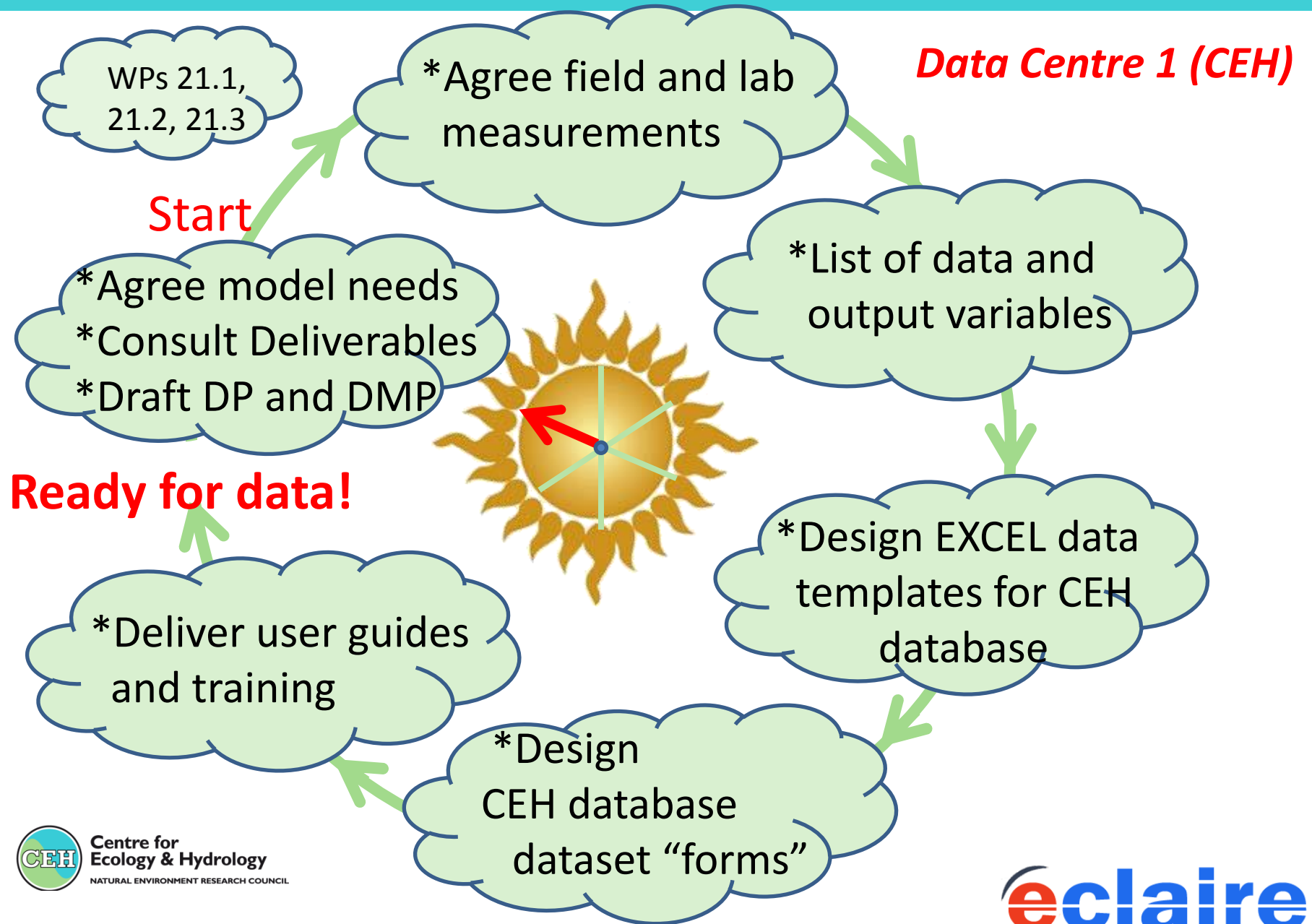
ECLAIRE Data Page

(under construction):

- DM committee names and contacts
- Links to CEH and JRC databases
- Guides to using the databases
- Data templates for C1, C2, C3
- News

Start up: where do we start?

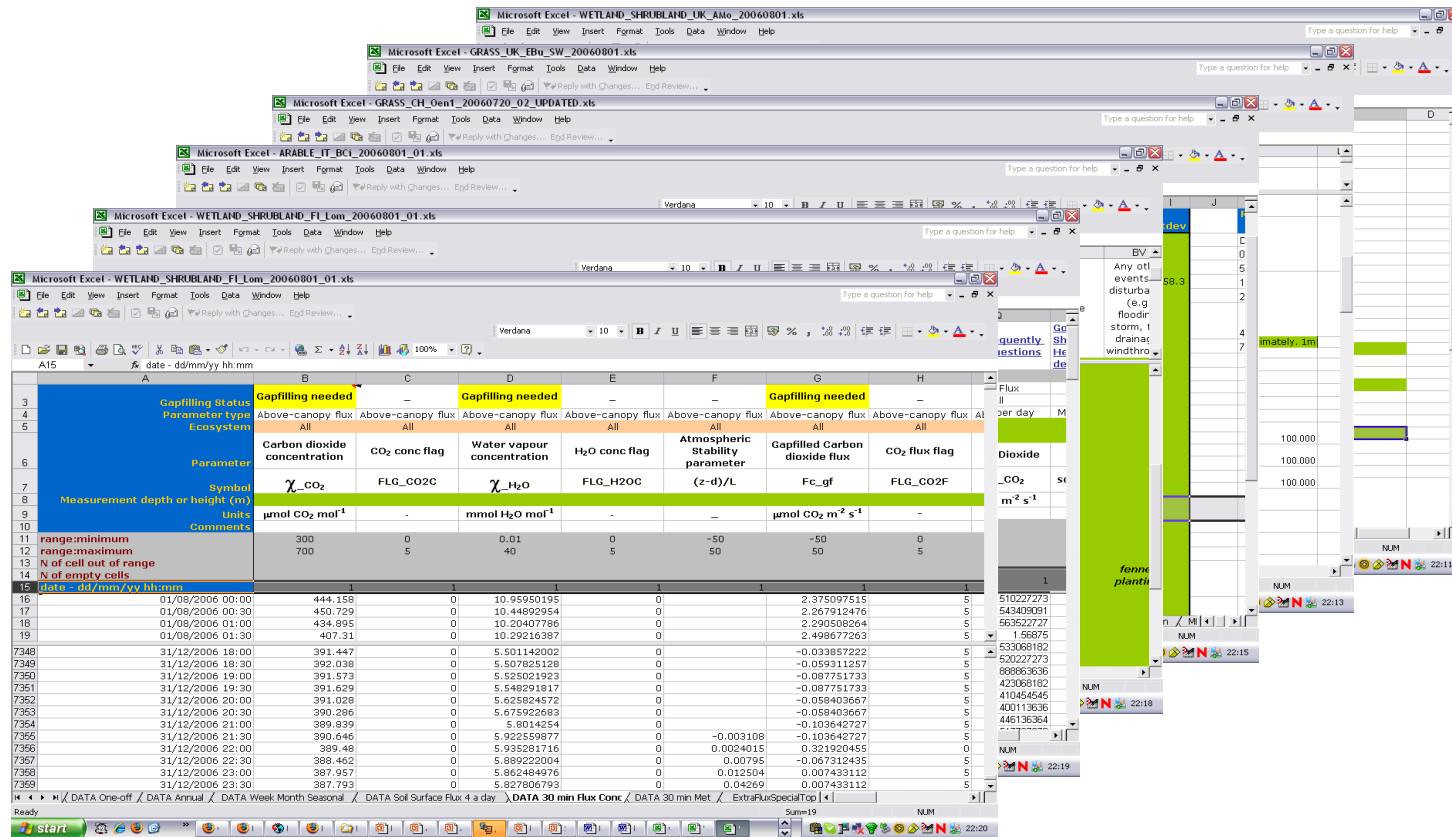
ECLAIRE data management start-up



Start up: What is the CEH data centre; who for?

ECLAIRE CEH database

A lot of data in EXCEL workbooks



ECLAIRE CEH database

- **Data storage:**

Data are stored in database “forms” based on the EXCEL data templates

- **Using NEU database software**

- branded and deployed for ECLAIRE
- Fully compatible with NEU, CLIMANNI via ENCORE

ECLAIRE CEH database

- EXCEL data workbooks are uploaded to the database – (*software extracts data into ORACLE database AND stores the EXCEL file*)
- UPDATING data is by re-uploading corrected EXCEL workbooks
- Scientists can DOWNLOAD data via an intuitive REPORT wizard

ECLAIRE CEH database

- Key fields

 - Date and time of measurement

 - Site

 - * Plus any number of other key fields
(*location, treatment, soil profile depths etc*)

- Checks on upload

 - ranges

 - required

 - data type

 - duplicate key checks

ECLAIRE CEH database

Likely categories of ECLAIRE data:

“One-off” type, recorded only once (in theory): from measurements; model output; mined data

“Time series” type: from measurements; model output; mined data

once a year/ few times a year

once a month/ few times a month

once a week/ or more often

every few hours

every hour

every 30 mins..

Zipped model code, maps, photographs, text files, functional relationships, reports.....

ECLAIRE CEH database

EXCEL workbooks	ECLAIRE database
Data workbook	Database data form
Data worksheet	Database data worksheet
Data cell or column	Database data field

All other files	ECLAIRE database
Zipped model code, reports, maps, photographs, small lab experiments etc	Attachments to an ECLAIRE database metadata form

Start up: What is the JRC data centre; who for?

ECLAIRE JRC database

The AFOLUDATA-portal (Agriculture, Forestry and Land Use)

- Part of the JRC action BIOCLIM (*co-funded development*)
- Serving other projects (*e.g. NitroEurope, TFRN, ANIMALCHANGE*)

ECLAIRE JRC database

The AFOLUDATA-portal

- collection of databases and tools for the assessment of GHG fluxes in Europe,
- different methods and scales,
- metadata information relevant for ecosystem modelling at Europe-wide scale,



Launching the DM ship

The CEH data centre

ECLAIRE database

<http://eclairedata.ceh.ac.uk/page/login.aspx>

ECLAIRE data management work-flow

Data Centre 1 (CEH)

Ready for download!

* Automated
on-line

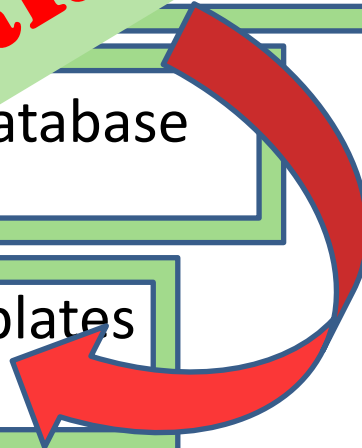
* Integrated QA checks
each year

* Upload to database

* EXCEL data templates

* Measurement data
* Model output

ERRORS?



ECLAIRE CEH database: Login

éclaire Effects of climate change on air pollution impacts and response strategies for European ecosystems 

[Click here to view the help for this page](#)

Welcome to the ECLAIRE database

Login

Username:

Password:

LOGIN

[Forgotten your password?](#)

[Request a login](#)


Click here to request a login

(v: 0.2.8.0) © Copyright 2011 CEH

ECLAIRE CEH Database

Uploading data

ECLAIRE CEH database: Home page

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Home Submissions Reports My Details Logout

You are here: Home [Click here to view the help for this page](#)

Good Afternoon, Susan!
What would you like to do today?

[VIEW REPORTS](#) [SUBMIT DATA](#)

(V: 0.2.8.0) © Copyright 2011 CEH

Click here to
submit (upload)
data

ECLAIRE CEH database: Upload data

You are here: Submissions [Click here to view the help for this page](#)

Form Submissions

Search:

Your Forms

Form Name	Status	Site	Submission	Action
ECLAIRE_demo_form	Validated	ECLAIRE_demo_site_2	18 Oct 2011 : Testing system 1	Review
ECLAIRE_demo_form	Pending	ECLAIRE_demo_site_2	21 Oct 2011 : BRESCIA demo upload	Review Upload

Select your database form (it will be obvious)

Select your site

Click "Upload"

ECLAIRE CEH database: Upload data

Form Submission - Select completed excel template

ECLAIRE_demo_form for ECLAIRE_demo_site_2 (21 Oct 2011)

Upload: C:\Documents and Se [Download this form's template](#)

Notes:

NEXT

Browse for your completed EXCEL data workbook

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ECLAIRE CEH database: Upload data

You are here: Submissions Form Upload

Form Submission - Download Permissions

ECLAIRE_demo_form for ECLAIRE_demo_site_2 (21 Oct 2011)

 You can control how this data is accessed.

These data are available freely for all registered users to download

These data are only available to members of the following data access groups:

ECLAIRE 

All users require permission to download data in this submission

Reason:

Select the “ECLAIRE” group to enable viewing permission to the ECLAIRE community

ECLAIRE CEH database: Upload data



éclaire Effects of climate change on air pollution impacts and response strategies for European ecosystems 

Home Submissions Reports My Details Logout

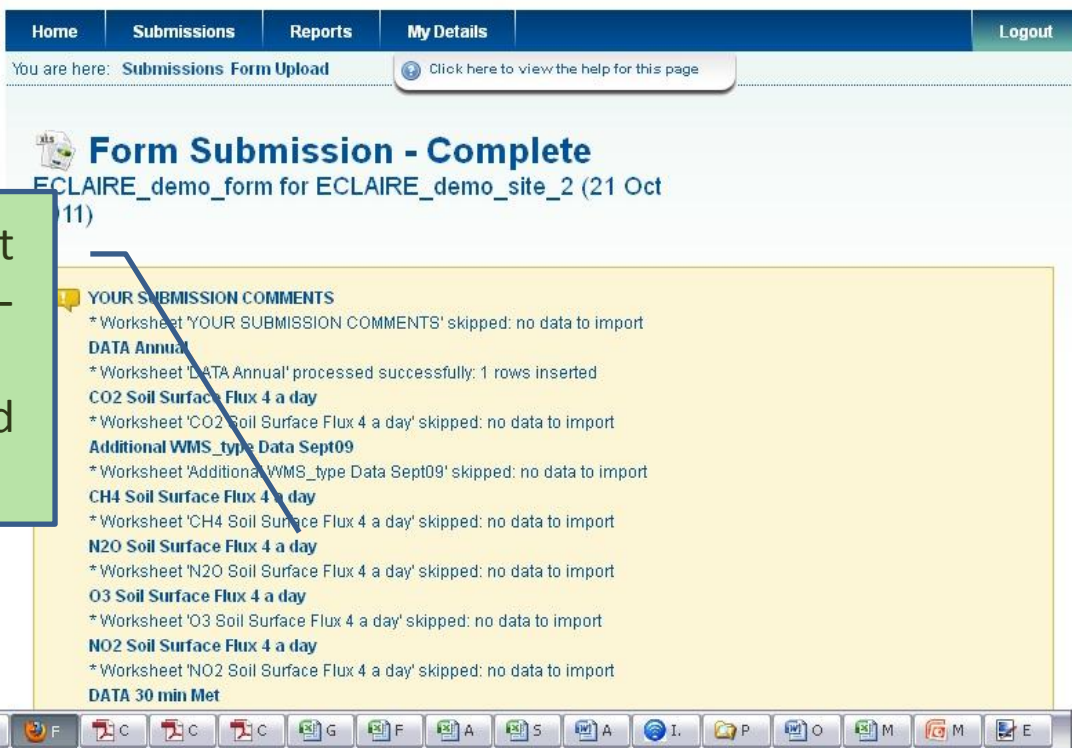
[Click here to view the help for this page](#)

 **Form Submission - Uploading, please wait...**
ECLAIRE_demo_form for ECLAIRE_demo_site_2 (21 Oct 2011)

Please wait while the upload is processed...

(V: 0.2.8.0) © Copyright 2011 CEH

ECLAIRE CEH database: Upload data



Home Submissions Reports My Details Logout

You are here: **Submissions Form Upload** [Click here to view the help for this page](#)

Form Submission - Complete

ECLAIRE_demo_form for ECLAIRE_demo_site_2 (21 Oct 2011)

YOUR SUBMISSION COMMENTS

- *Worksheet 'YOUR SUBMISSION COMMENTS' skipped: no data to import
- DATA Annual**
- *Worksheet 'DATA Annual' processed successfully: 1 rows inserted
- CO2 Soil Surface Flux 4 a day**
- *Worksheet 'CO2 Soil Surface Flux 4 a day' skipped: no data to import
- Additional WMS_type Data Sept09**
- *Worksheet 'Additional WMS_type Data Sept09' skipped: no data to import
- CH4 Soil Surface Flux 4 a day**
- *Worksheet 'CH4 Soil Surface Flux 4 a day' skipped: no data to import
- N2O Soil Surface Flux 4 a day**
- *Worksheet 'N2O Soil Surface Flux 4 a day' skipped: no data to import
- O3 Soil Surface Flux 4 a day**
- *Worksheet 'O3 Soil Surface Flux 4 a day' skipped: no data to import
- NO2 Soil Surface Flux 4 a day**
- *Worksheet 'NO2 Soil Surface Flux 4 a day' skipped: no data to import
- DATA 30 min Met**

You may see a list of data “errors” – resulting from automatic upload checks

ECLAIRE CEH database: Upload data

N2O Soil Surface Flux 4 a day
* Worksheet 'N2O Soil Surface Flux 4 a day' processed successfully: 27 rows inserted

O3 Soil Surface Flux 4 a day
* Worksheet 'O3 Soil Surface Flux 4 a day' skipped: no data to import

NO2 Soil Surface Flux 4 a day
* Worksheet 'NO2 Soil Surface Flux 4 a day' skipped: no data to import

DATA 30 min Met
* Worksheet 'DATA 30 min Met' processed successfully: 8688 rows inserted

WMS Wet deposition
* Worksheet 'WMS Wet deposition' skipped: no data to import

DATA 30 min Flux Conc
* Worksheet 'DATA 30 min Flux Conc' processed successfully: 8688 rows inserted

DATA Week Month Seasonal
* Worksheet 'DATA Week Month Seasonal' processed successfully: 20 rows inserted

ExtraFluxSpecialTopicContinuous
* Worksheet 'ExtraFluxSpecialTopicContinuous' skipped: no data to import

NO Soil Surface Flux 4 a day
* Worksheet 'NO Soil Surface Flux 4 a day' skipped: no data to import

Additional_Special_topics
* Worksheet 'Additional_Special_topics' skipped: no data to import

Measurement Heights and Depths
* Worksheet 'Measurement Heights and Depths' processed successfully: 1 rows inserted

Suction Cup Soil data
* Worksheet 'Suction Cup Soil data' skipped: no data to import

If you submit data with legitimate “errors” – you must give a brief explanation here

Download the list of errors to make it easier to check them. Some “errors” are OK, eg an extreme value that falls outside a value range check

Save but don't submit

Save and submit for validation

Error Notes:

Please explain the errors in this upload

IV 0 2 8 0 © Copyright 2011 CEH

Check the error report..if it's big, click “export

ECLAIRE CEH database: Upload data

That's it!

*Form Manager will check the submission and **VALIDATE** it

*Automatic email: data are ready for downloading by the ECLAIRE community

*Need to correct data after submission? – edit the EXCEL data file and re-upload (contact Data Manager for simple instructions)

ECLAIRE CEH Database

Downloading data

ECLAIRE CEH database: download data

The screenshot shows the éclaire website interface. At the top left is the logo 'éclaire' in blue, followed by the text 'Effects of climate change on air pollution impacts and response strategies for European ecosystems'. To the right is the 'SEVENTH FRAMEWORK PROGRAMME' logo. Below this is a navigation bar with buttons for 'Home', 'Submissions', 'Reports', 'My Details', and 'Logout'. Under the 'Home' button, it says 'You are here: Home' and a link 'Click here to view the help for this page'. The main content area greets the user: 'Good Afternoon, Susan!' and asks 'What would you like to do today?'. There are two buttons: 'VIEW REPORTS' and 'SUBMIT DATA'. A blue arrow points from the 'VIEW REPORTS' button to a green callout box containing the text 'Click here to download data'. At the bottom right of the page, it says '(V: 0.2.8.0) © Copyright 2011 CEH'.

ECLAIRE CEH database: download data

Home Submissions Reports My Details Logout

You are here: Reports [Click here to view the help for this page](#)

Reports & Graphs

NEW REPORT DATA USAGE REPORT

[Click here](#) to view data fields available for each form
[Click here](#) to view any outstanding data requests for your site
[Click here](#) to check your data requests

Your Reports Your Graphs Template Reports

Report Name	Action
110328_permissions_DEMO_C1L3	Edit Run Report Run History Delete
110330_test_notification messages	Edit Run Report Run History Delete
110414_N20_test	Edit Run Report Run History Delete

Quick Site Summary

Use this form to find out how much data of each type are available at each site

Select Dataset (form):

Select Site:

Select field group according to data type (worksheet):

Click "New Report" to design a request to download data

Click "Run Report" to run an existing request to download data

ECLAIRE CEH database: download data

The screenshot shows the ECLAIRE web application interface. At the top, the logo 'éclaire' is displayed in blue, followed by the text 'Effects of climate change on air pollution impacts and response strategies for European ecosystems' and the 'SEVENTH FRAMEWORK PROGRAMME' logo. Below this is a navigation bar with 'Home', 'Submissions', 'Reports', 'My Details', and 'Logout'. A breadcrumb trail reads 'You are here: Reports Report Summary Report Name'. The main heading is 'Report name' with a pencil icon. A light blue box contains the instruction: 'Enter the name, grouping and frequency of the report. Also, you can choose to make the report public, and share it with other user of the NEU application'. The form fields are: 'Report Name:' with a text input containing 'ECLAIRE_demo_report'; 'Report Type:' with a dropdown menu set to 'Report'; 'Frequency:' with two empty input fields and a dropdown arrow; 'Group By:' with a dropdown menu. Below these are four checkboxes: 'Show site data horizontally', 'Show blank rows', 'Show Field Descriptions', and 'Allow everyone to see this report (Template)'. A green 'SAVE' button is located at the bottom right of the form area.

For a new report (download request), give the report a name

Select "report" for a table of data, or "graph" for graphical output

SAVE

Click "save" for the next stage

ECLAIRE CEH database: download data

eclaire Effects of climate change on air pollution impacts and response strategies for European ecosystems

SEVENTH FRAMEWORK PROGRAMME

Home Submissions Reports My Details Logout

You are here: Reports Report Summary Report Fields

Report fields

Choose forms, form fields and attributes to include in the report. Click the plus next to each form to show worksheets fields, and any attributes.

- ECLAIRE_derp_form
 - Additional_WMS_type Data Sept09
 - Additional_Special_topics
 - CH4 Soil Surface Flux 4 a day
 - CO2 Soil Surface Flux 4 a day (Comments from CO2 Soil Surface Flux 4 a day)
 - DATA 30 min Flux Conc
 - CO2_concentration (umol CO2 mol-1) - c_CO2
 - H2O_concentration (mmol H2O mol-1) - c_H2O
 - Atmospheric_stability_parameter - (z-d)L
 - Gap-filled_CO2_flux_storage_corrected (umol CO2 m-2 s-1) - Fc_gf

The list of available database forms appears; drill down for “worksheets” and “field-names”

ECLAIRE CEH database: download data

éclair

Effects of climate change on air pollution impacts
and response strategies for European ecosystems



Home Submissions Reports My Details

You are here: Reports Report Summary Report Filters

Report Field Options and Filters

For each field in the report you can set the function used to aggregate data (Average, Max, Min, Sum) which you have set a frequency for this report. Also, you can add a filter condition (such as = 2, or > 100) to limit the data that does not include date range, as that is selected when the report is run.

Field Name	Filter	Frequency	Color
CO2_concentration	<input type="text"/> and <input type="text"/>	Average	CC3333
H2O_concentration	<input type="text"/> and <input type="text"/>	Average	CC6633

After clicking "save" on the previous screen, you can now define value ranges etc for your output

ECLAIRE CEH database: download data

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Home Submissions Reports My Details Logout

You are here: Reports Run Report [Click here to view the help for this page](#)

Run ECLAIRE_demo_report

Date Range: From: To:

ii:

Sites:

- ECLAIRE_demo_site
- ECLAIRE_demo_site_2
- ECLAIRE_demo_site_3
- ECLAIRE_demo_site_4
- ECLAIRE_demo_site_5
- ECLAIRE_demo_site_6


Types:

- Additional Type
- Arable
- Forest
- Grassland
- Shrub Land
- Wetland

RUN REPORT

Date range Summary


Available date range across all sites for this report. Please use Quick Site Summary (previous page) for individual site details

 **01 Aug 2006 00:30 - 01 Jan 2011 00:00**

After clicking “save” on the previous screen, there is an option to “run report” (ie, download data).

This window appears where you select the date range and sites for the downloaded data

ECLAIRE CEH database: download data

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Home Submissions Reports My Details Logout

You are here: Reports Run Report Disclaimer [Click here to view the help for this page](#)

Terms and Conditions

Intellectual property right issues

When you download data, you are agreeing to the following terms and conditions regarding Intellectual Property Rights (IPRs).

IPRs belong to the Data Originator or their respective institutes. During the retention period, the originators will have the priority to publish the analysis of their own data. In case of shared ownership analysis of the data will be published collectively by the originators.

Furthermore, at any time (i.e., during or after the retention period), investigators who have collected and/or done the initial analysis of the data will be invited to be co-authors of any publication or communication based on such data.

I agree with the above

RUN

ECLAIRE CEH database: download data

You are here: Reports Run Report Report Report [Click here to view the help for this page](#)

ECLAIRE_demo_report

✓ ECLAIRE_demo_site BETWEEN 01 Oct 1992 AND 31 Oct 2011

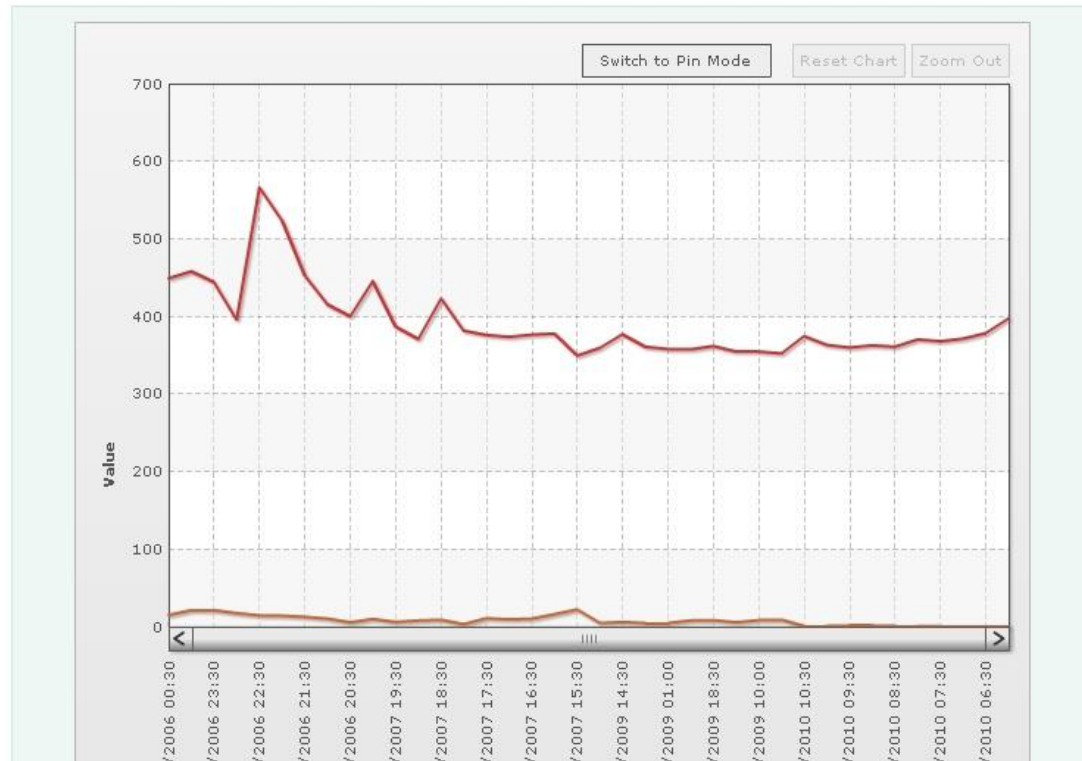
EDIT

DOWNLOAD

ECLAIRE_demo_report				
Site	Date	n	CO2_concentration (umol C	H2O_concentration
ECLAIRE_demo_site	01/08/2006 00:30:00		449.26855556	15.09266667
ECLAIRE_demo_site	01/08/2006 01:00:00		457.97488889	14.93672222
ECLAIRE_demo_site	01/08/2006 01:30:00		467.43627778	14.68211111
ECLAIRE_demo_site	01/08/2006 02:00:00		460.94483333	14.57677778
ECLAIRE_demo_site	01/08/2006 02:30:00		462.30827778	14.56572222
ECLAIRE_demo_site	01/08/2006 03:00:00		470.2330	14.77347050

ECLAIRE CEH database: download data

Date Range: From: To:



Launching the DM ship

The JRC data centre

ECLAIRE JRC database

The AFOLUDATA-portal

- Metadata Editor generates complete and useful metadata, easy to use,
- input data for models, model source code, simulation results synthesis data for verification,
- downloads are access-controlled.



ECLAIRE JRC database

The screenshot displays the ECLAIRE JRC database interface. At the top, there is a header with the JRC logo, the IES logo, and the text 'GHG AFOLU'. Below the header, a navigation bar contains links for 'EUROPA > European Commission > JRC > IES > CCAQU > AFOLUDATA', along with 'disclaimer | privacy | contact'. A secondary navigation bar includes 'About AFOLU DATA | Climate Change Policy | Research Projects | Data and Tools | Events 12'. The main content area is titled 'Data and Tools' and features a 'List of datasets' section with a '+ Create new dataset' button. Three dataset entries are visible, each with a '+ [-]' button: '1km raster for Continental Europe', 'Agricultural_Landuse2000_EU12', and 'Agricultural_Landuse2000_EU15'. To the right, a sidebar contains logos for 'GHG AFOLU' and 'NitroEurope P', a search bar with 'Google Custom Search' and a 'Search' button, and a user menu for 'susanowen' with options for 'logout', 'my profile', and 'change password'. Below the user menu is a 'Dataset selection' menu with options for 'Datasets (by ID)', 'Models and Tools', 'Projects / Experiments', and 'FAQ'.

Talk to Adrian
Leip

Request a user
id/password

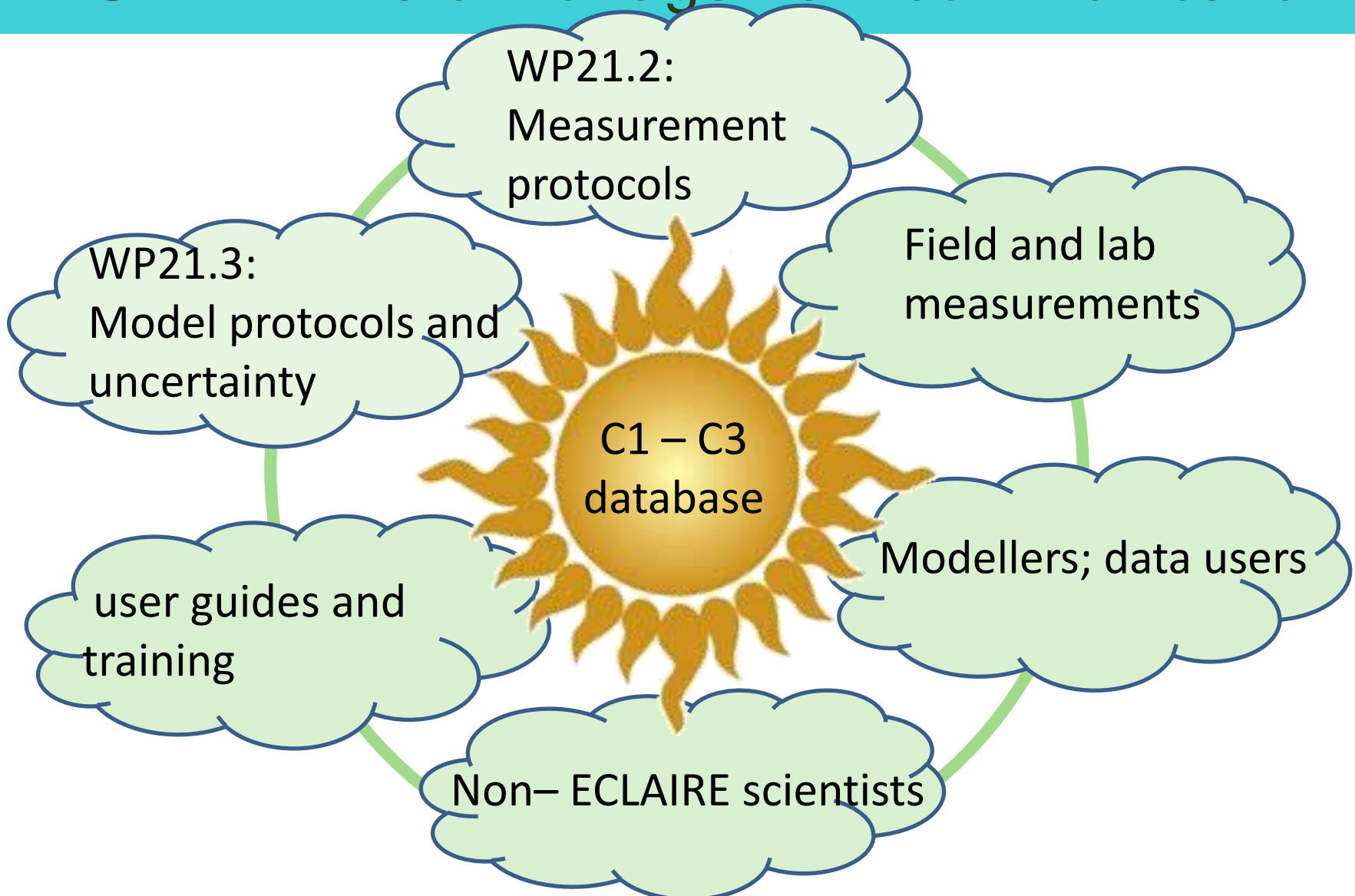
Explore and
Communicate

Launching the DM ship

All in the same crew

...so please tell the DMC of any concerns, problems etc. We'll work with you to get the job done as well as possible.

ECLAIRE Data Management communication



ECLAIRE Data Management communication

Tutorials and help are available by telephone to learn about the CEH database software.

Please email Sue: susa1@ceh.ac.uk

Thank you!



eclaire