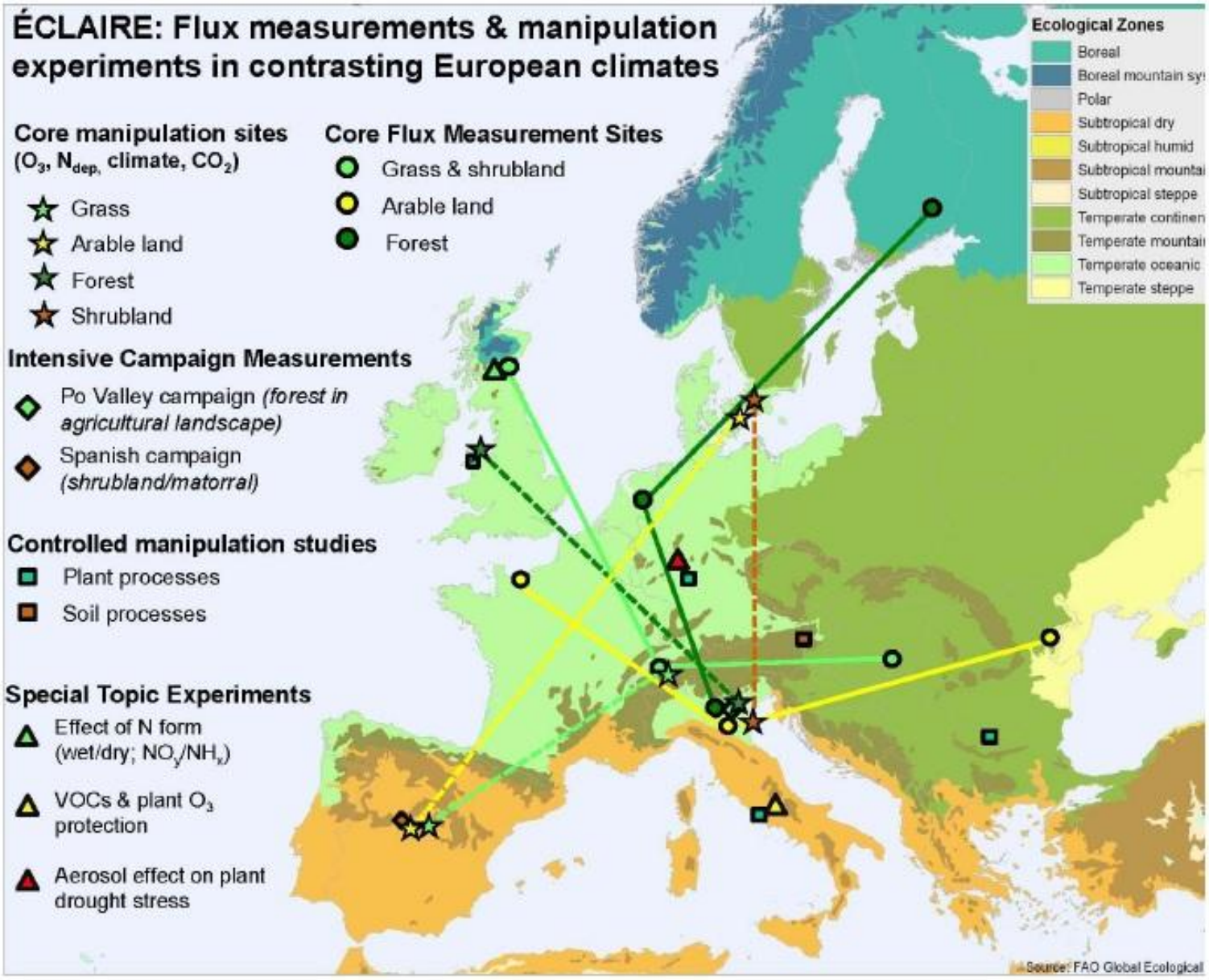

ÉCLAIRE: Flux measurements & manipulation experiments in contrasting European climates
Core manipulation sites (O_3, N_{dep}, climate, CO_2)
Grass
Arable land
Forest
Shrubland
Core Flux Measurement Sites
Grass & shrubland
Arable land
Forest
Intensive Campaign Measurements
Po Valley campaign (forest in agricultural landscape)
Spanish campaign (shrubland/matorral)
Controlled manipulation studies
Plant processes
Soil processes
Special Topic Experiments
Effect of N form (wet/dry; NO_y/NH_x)
VOCs & plant O_3 protection
Aerosol effect on plant drought stress
Ecological Zones
Boreal
Boreal mountain sy
Polar
Subtropical dry
Subtropical humid
Subtropical mountai
Subtropical steppe
Temperate continen
Temperate mountai
Temperate oceanic
Temperate steppe
Source: FAO Global Ecological

WP1.1 - Field studies on exchange processes

- 15 months of high temporal resolution flux data (O_3, NO, CO_2, H_2O)
- Across a 9-site European flux network (Aug 2012 - Oct 2013)

➢ **9 months data are submitted for 8/9 sites**

➢ **Final Submission (6 months) due March 2014**

WP1.2 - Intensive measurement periods across the flux network

Two contrasting measurement periods across the network. NO and NO_2 by gradient and/or eddy-covariance, NH_3 and VOCs

➢**Captured in flux template**

WP1.4 Intensive measurement campaign

Bosco Fontana July 2012

➢**Huge amounting of collating datasets still required into a sensible template structure. Work ongoing and aim to be ready end of November to capture for the database**

WP1.5 - NH3 fluxes over Mediterranean semi-natural surfaces

NH3 exchange experiments above semi-natural vegetation in Spain, during one 12 week campaign.

➢ **To discuss at Zagreb**

WP2 – Controlled studies on exchange processes – Lab Studies

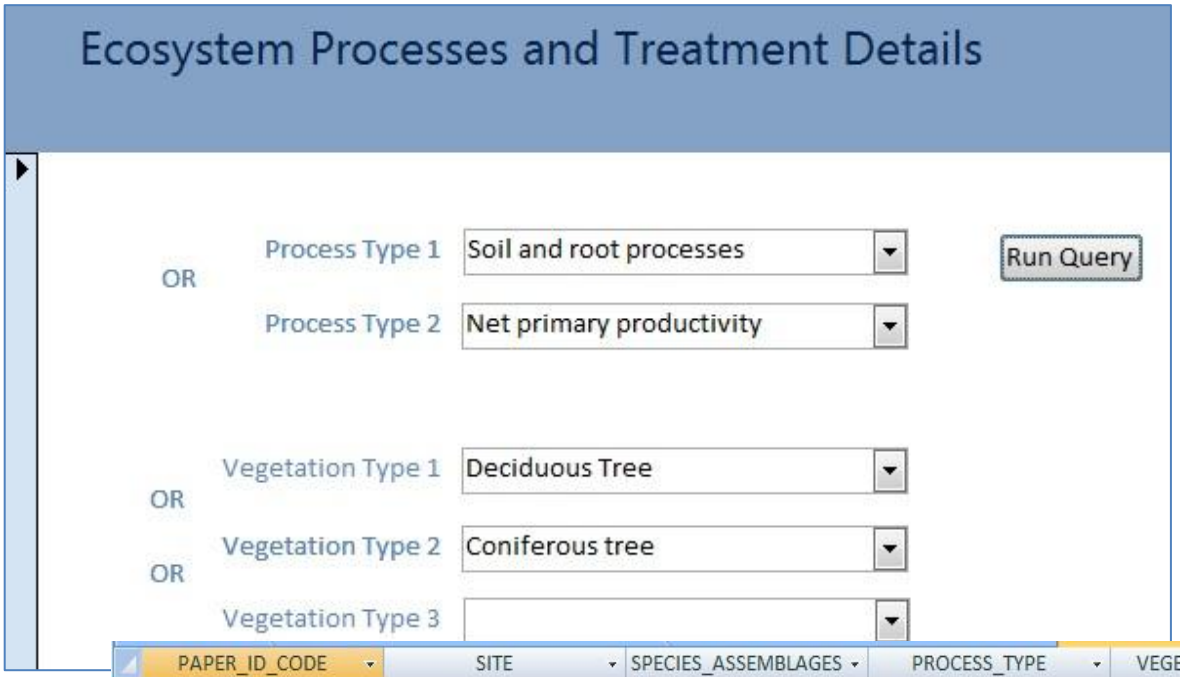
- 2.1 Response curves of soil and litter emissions to meteorological drivers (temperature, moisture) – BOKU Vienna
- 2.2 Provide data on NO emissions after rewetting events on soil cores – KIT, Garmisch
- 2.3 Leaf gas exchange, fluxes of BVOC, NO emission – BAS-IFRG Bulgaria, CNR Italy
- 2.4 Plant and Soil processes and stresses of BVOC and O_3 emission/deposition responses - Juelich Plant Atmosphere Chamber experiments

➢ **Use this meeting as finding a pathway for delivering data**

WP9 – Data Mining Exercise

- Now in an Access Database
- Query can be run for different processes (Leaf-scale, Dynamic and Ecosystem scale processes) and Vegetation Types - Crops, Grassland/Wetland/Heath & Trees

➢ **Download the latest version from the ECLAIRE website today!**



PAPER_ID_CODE	SITE	SPECIES_ASSEMBLAGES	PROCESS_TYPE	VEGETATION_TYPE	VEG_TYPE_DESCRIPTIOI	NUMBER_OF_SPECIES
ALLISO20081156	Central Alaska	Picea mariana	Soil and root processes	Coniferous tree		
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ALLISO20081156	Central Alaska	Picea mariana	Soil and root processes	Coniferous tree		
ALLISO20082898	Central Alaska	Picea mariana	Soil and root processes	Coniferous tree		
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ANDERS20000007	Corvallis	Pinus ponderosa	Soil and root processes	Coniferous tree	Ponderosa Pine	
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Gina Mills will demo in Session 5 on Wednesday

WP10 Manipulation Experiments

- Ecosystem effects across 4 ecosystem types - Forest (2), Grassland (2), Agriculture (2) and Shrubland (2)

Ecosystem	Site 1	Site 2
Forest	Bangor (UK)	Curno (It)
Grassland	Santa Olalla (Es)	Alp Flix (Sui)
Agriculture	Santa Olalla (Es)	Roskilde (Dk)
Shrubland	Brandburg (Dk)	

➢ **Data from 5 sites out of 7 including data from 2012 growing season + archived years**

WP11 – Special Topic Experiments

- Effect of N form at Whim Bog (UK)
- BVOCs and plant O_3 protection at Castelporziano flux tower site (Italy)
- Aerosol effect on plant drought stress at Bonn Chamber (Germany)

➢ **Most data submitted to the database**

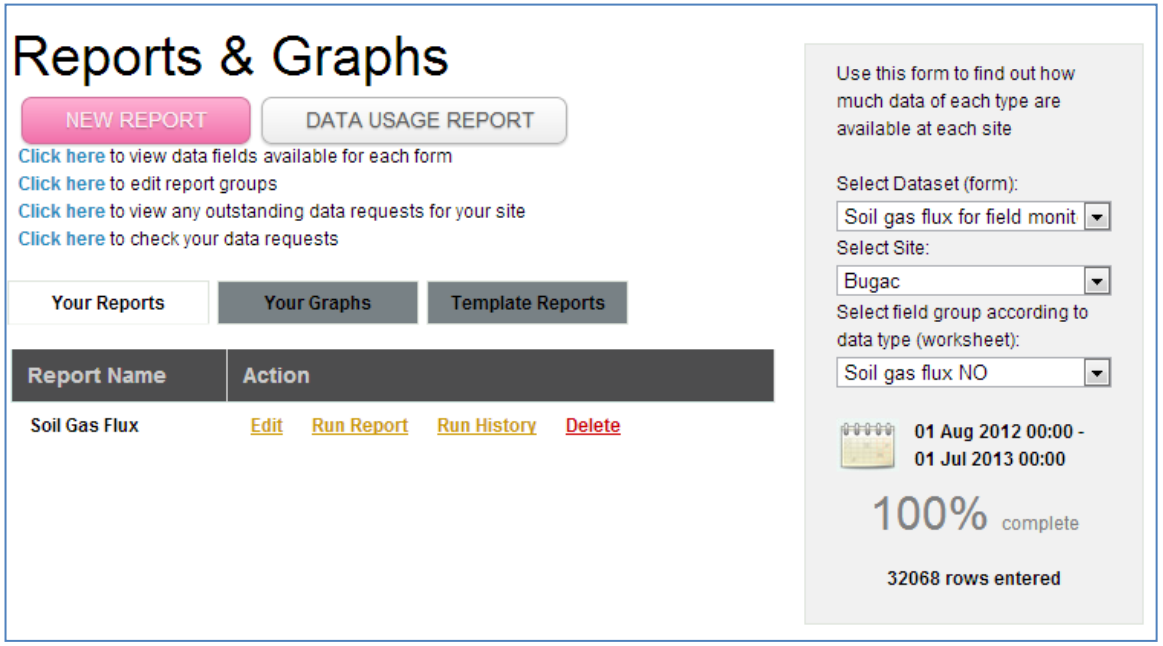
➢ **Use Zagreb meeting to solve any problems**

Afolu Database – Regional Upscaling C4 & C5

- Spatial datasets to be submitted to the AFOLU database at JRC.
- Built and ready to accept data

ECLAIRE Database – C1 & C3

- WP1, WP2, WP10, WP11 and modelled data
- Development on new reporting system for launching on production site next month
- Create a user at http://eclairedata.ceh.ac.uk



ENCORE- Environment and Climate interactions - Observations and Responses in Ecosystems

- Interface built
  - ➢ **Build the vocabulary structure**
  - ➢ **Expect functioning version connected to NEU and ECLAIRE for user testing in Spring 2014**

OPPORTUNITIES FOR YOU!

1. **Sign Up** for Demos and help on the ECLAIRE database. Uploading/Downloading data
   - Site managers, data uploaders, modellers, everyone

2. **Data Forum** – 17:00 to 18:00 Today

   Demonstration of new ECLAIRE downloading data tool

   All Welcome (First 20 mins – then you can leave)

   Also DMC to meet afterwards, All welcome to stay.