# FluxMet A new approach to integrating flux data within CEH

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## Why FluxMet?

- Large volume of valuable data in danger of being lost.
- Loss of knowledge & expertise – key staff left/retired.
- Data inconsistently stored & documented.
- No cross site access to data.
- Data not currently interoperable.
- CEH Micromet want to implement consistent practices.

## NitroEurope (NEU)

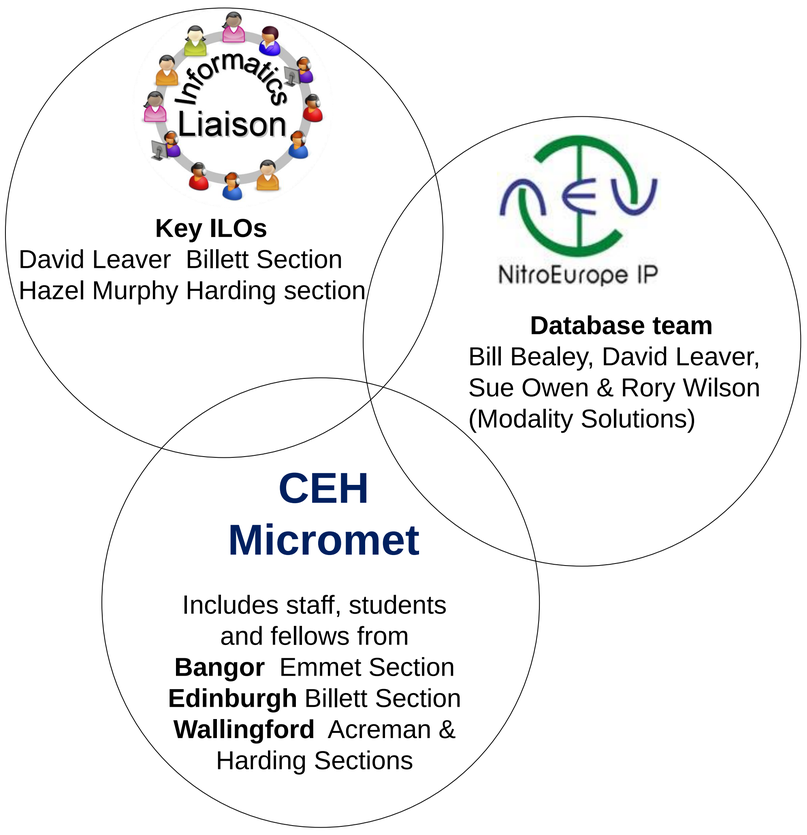
- EU FP6 research project
- Looking at the nitrogen cycle.
- Coordinated by CEH Edinburgh.
- Created NEU database system created to host data.

## Solution


FluxMet Example Data

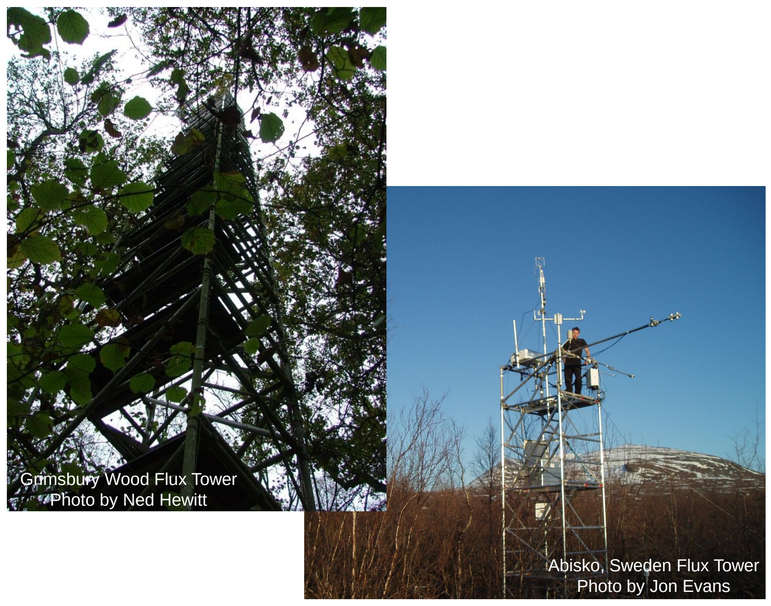
### Those involved include

**Core Project Team** Mark Robinson, Jon Evans, Hazel Murphy, Carole Helfter, Peter Levy & David Leaver




## What is flux data?

Micrometeorologists measure the transfer of energy between the land surface & the atmosphere.
This type of transfer is called a flux.
Measurements taken from flux towers using anemometers
It is high frequency data (20/30 records/second).
Fluxes are calculated & averaged at half-hourly intervals.




## Key Requirements

- Data stored on an Oracle database.
- Easy upload /download facility.
- No need to know SQL.
- Shared system across all CEH sites.
- Store all associated metadata.
- Link to CEH Information Gateway.

## FluxMet - Utilising the NEU database system design


- Reuse existing work by the NEU database team.
- Write full user documentation.
- Utilise web based system for access.
- Data upload via Excel with back end Oracle database.
- Facilitate incorporation of all existing CEH flux data.
- Implement common core metadata for flux data.

## Benefits

- Improved access to CEH micro meteorological data.
- Good system already available – why reinvent the wheels?
- Reduces duplication of effort.
- Saved CEH time and money.
- Shared enhancements.
- Generic system for all flux/micro meteorological data.
- Enables data interoperability.
- Facilitates data download with units & descriptions.
- Helps meet INSPIRE requirements.