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**UK-EOF - A new phase**

Fresh from reporting to our champion, Defra's Professor Bob Watson, we are using this newsletter to give you an overview of what we will be doing in 2012.

So, what next? From the tools and evidence gathered so far we are beginning to dig deeper and ask questions such as: Are we collecting observations in the most efficient way? Can we share costs, people and infrastructure? Are the observations actually used? Are they shared to create new knowledge?

The full breadth of the UK-EOF is vast, from satellites to butterflies, public, private or voluntary observations, natural and socioeconomic sciences. Therefore, our funders have chosen to focus on areas of observations where there is the most need and where UK-EOF can add value. The chosen areas, shown in the order we will progress them are:

- The role of citizen science in monitoring (Defra, ESRC led)
- Finding monitoring efficiencies through coincidence mapping (NE, EA led)
- Assessing water observations (LWEC led)
- Coordinating climate observations and GCOS consultation (DECC led)
- Legislative observations (Defra and EEA led)
- Sustainable funding mechanisms

As well as these focus areas (described below) we will be continuing the core work of maintaining the Catalogue (and looking at INSPIRE compliance for the EMF theme), and running the Data Advisory Group.

**The role of Citizen Science in monitoring**

Thank-you to all those who attended the Citizen Science workshop, in July. There were lively discussions on current activities, issues, concerns and potential areas of synergy and collaboration. The workshop showed that there was much appetite to understand the motivations of volunteers and to determine where citizen science can deliver the most benefit for monitoring.

This work is related to the UK Government's drive for a Big Society and public engagement with the environment. Recommendations included undertaking a review of where volunteers and/or voluntary networks could fill gaps in the data required by public sector organisations; and understanding what new technologies are available, or what could be developed, for rapid, high quality data collection by non specialists. The UK-EOF will soon be letting contracts to help us progress these recommendations.

The workshop report is available online [http://www.ukeof.org.uk/co\\_citizen.aspx](http://www.ukeof.org.uk/co_citizen.aspx)

**Finding monitoring efficiencies through coincidence mapping**

Organisations funding environmental observations are increasingly required to make efficiency savings and deliver better science. This work will investigate where efficiencies in data collection, site/ facilities sharing, data management and data sharing at co-located or geographically close locations could help organisations increase the scope of their science and make their observations more cost efficient.

UK-EOF will map observation sites to identify potential areas of collaboration and bring together funders to discuss the benefits and barriers of working collaboratively. This will also fulfil the ALB Review commitment on environmental monitoring. A workshop being held on the 9th December 2011 will kick start discussions.

### Assessing water observations

We propose to undertake a review of water observations to identify whether current activities match current and future needs. This will underpin the various water initiatives including the Water Research and Innovation Framework (UKWRIF), the forthcoming Water White Paper and the NERC Water Security Knowledge Exchange Programme.

Follow on work will assess whether water observation programmes are coordinated or whether there is scope for better alignment, which could lead to efficiency savings and better science.

### Coordinating Climate Observations and GCOS Consultation

Thank-you for all the responses to the consultation on the Global Climate Observing System (GCOS). Responses were received from over 15 organisations and discussions held with several others. A summary of responses has been compiled and submitted to DECC. Initial findings indicate that the UK is involved in a great deal relevant research and monitoring. In many cases several organisations are working together, however there is still a need for better coordination of information. The summary report will be released on the UK-EOF website in early 2012.

Following the consultation on the GCOS, it became apparent that improved transparency is needed over what UK observations are being used for climate purposes. A better understanding of these observations will feed directly into the LWEC Climate Challenge area and may highlight other observations which could be used for climate monitoring/ science. It will also make searching for climate related observations easier, as clear tags will be added to the UK-EOF catalogue. UK-EOF will follow on this work by assisting DECC with the 6th National Communication to the UNFCCC in 2012/ 13.

### Legislative observations

This work will try to identify the monitoring that is done purely for the purpose of meeting a European Directive. It will investigate whether the information is still providing useful knowledge and/ or adding value to the science - if not, why not? The overall purpose will be to provide an evidence base for Defra and devolved policy colleagues to initiate discussions with Europe.

### Sustainable funding mechanisms

In addition, the UK-EOF will be working with the MSCC and John Beddington's office to look at the issues and barriers to financing observations in a sustainable way which recognise they are a long term asset. Our main role is to identify the size of the issue - which programmes are funded by multiple organisations and/ or are funded on very short term basis.

If you want to alert us to particular projects that are at risk, then please get in touch. However, there is no pot of money to fund observations; we are looking at funding mechanisms.

### Successes and Impacts

1. UK-EOF mentioned in Natural Environment White Paper  
The Natural Environment White Paper is a bold and ambitious statements outlining the Government's vision for the natural environments over the next 50 years, backed up with practical action to deliver that ambition. UK-EOF even gets a mention and will help Government deliver the Implementation Plan. If you haven't already, you can read the white paper  
<http://www.defra.gov.uk/environment/>

2. Statement of need  
The 'Statement of need' has recently been used by the UK Space Agency as a starting point to

discover what information the UK needs. From this, they have begun to consider the potential of satellites to provide the information.

### 3. EMF Consultation response

UK-EOF had the network and knowledge to be able to respond to the consultation on Environmental Monitoring Facility (EMF) Theme of the INSPIRE Directive Annex III. The data specification describes the elements necessary for data harmonisation and interoperability. There could be major opportunities for the UK if we can agree how to implement it. That will be the next lot of discussions once the requirements are finalised by Europe in Spring 2012.

## The UK-EOF Catalogue

Thanks to your help we have now been able to link activities to their parent programmes. This is a major step forward in organising the 1150 records in the UK-EOF catalogue. Over 700 activities have been linked to their 'parent' programme and 70 programmes have been associated with other relevant programmes. This will make searching for activities and related work easier and quicker for users. You can now search for programmes, activities or data sources and find out what other records are associated with the results. See [www.ukeof.org.uk](http://www.ukeof.org.uk)

The first steps have also been taken to enable users to link directly to online data. Working with JNCC and NBN, UK-EOF has trialled creating web links to data sets on the NBN gateway. This will now be expanded for the 100 activities in the UK-EOF catalogue that can link directly to datasets held in the NBN Gateway.

Following the INSPIRE EMF Annex III review and current mapping work, UK-EOF will be looking to upgrade the functionality of its catalogue in 2012 to include tools which will enable users to visually explore the metadata using GI software.

## UK-EOF Data Advisory Group

The Data Advisory Group remains at the heart of coordination of the major environmental data initiatives. The Group meets quarterly to discuss data issues, share ideas about best practice, and communicate developments within the data world [http://www.ukeof.org.uk/di\\_focalpoint.aspx](http://www.ukeof.org.uk/di_focalpoint.aspx) For more information about UK, EU and global data initiatives and the current positioning of these initiatives, please see [http://www.ukeof.org.uk/documents/2011\\_UK-EOF\\_DAG-proforma-updates.pdf](http://www.ukeof.org.uk/documents/2011_UK-EOF_DAG-proforma-updates.pdf)

## Community Announcements

### 1. EXPEER Calls for Access - The Rothamsted Long-Term Experiments and Archive

The EU EXPEER project ([www.expeer.fr](http://www.expeer.fr)) is currently inviting proposals from researchers within all EU member states and associated countries to enhance collaborative research between major European ecological research institutions.

Researchers who are interested in developing work using material from the Rothamsted Long-Term Experiments are invited to register their interest by submitting a completed pre-application form via the EXPEER website ([www.expeer.fr](http://www.expeer.fr)). Information about the facilities at Rothamsted are detailed here [Rothamsted facilities \(PDF\)](#).

Successful proposals will provide researchers with free access to the resources available at participating facilities. Proposals are invited for collaborative work with all of the 33 research institutions within the EXPEER network, including proposals for work based on the Rothamsted Long-Term Experiments ([PDF](#))

### 2. Establishment of Southern Ocean Observing System (SOOS)

The Southern Ocean Observing System (SOOS) will provide the long-term measurements required to improve understanding of climate change and variability, biogeochemical cycles and the coupling between climate and marine ecosystems. Sustained observations of the region are needed to address key research questions of direct relevance to society. Advances in technology and understanding mean that it is now possible to design and implement a sustained feasible and cost-effective observing system for the Southern Ocean to meet this need. For more information [http://apecs.is/images/stories/files/SOOS\\_WhitePaper.pdf](http://apecs.is/images/stories/files/SOOS_WhitePaper.pdf)