

# **NERC Environmental Data Centres**

Garry Baker

Head of National Geoscience Data Centre at BGS





#### Who are we?

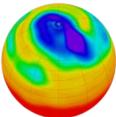


# **British Oceanographic Data Centre**

NATURAL ENVIRONMENT RESEARCH COUNCIL

Five NERC Environmental Data Centres

- domain expertise



# Centre for Environmental Data Analysis

SCIENCE AND TECHNOLOGY FACILITIES COUNCIL
NATURAL ENVIRONMENT RESEARCH COUNCIL

Distributed framework that delivers NERC "Environmental Data Service"



# Centre for Ecology & Hydrology

NATURAL ENVIRONMENT RESEARCH COUNCIL



#### British Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL





#### What we do?

- Manage the scientific data and information generated from a range of differing environmental domains within the UKRI-NERC portfolio
- Preserve this data for the long-term as both evidence of existing of the current scientific/research record (funded by both UKRI-NERC and others) but also to make it easily accessible for future re-use
- We hold historical/legacy observation data up to real-time processes, sensor networks and data streams from large infrastructures or facilities
- Provide guidance and knowledge to our scientific domains on the management of data and information
- We support and facilitate the access and re-use of the data held and managed using a variety of tools and systems







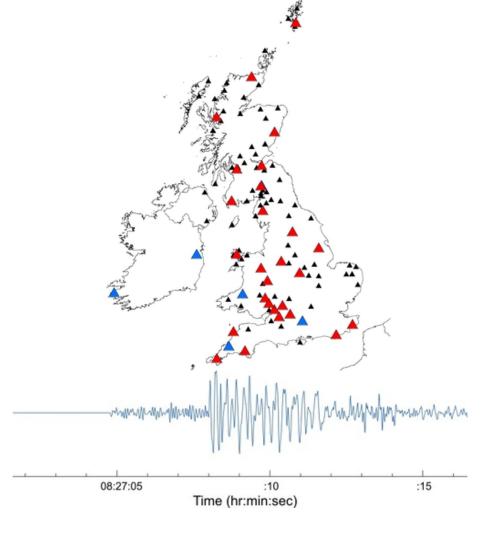






#### Users of UKRI-NERC Data Centres

- Domain communities (National; Countryside Survey, Global; OneGeology, GEBCO)
- Environmental Communities (European networks; ESFRI, PEER)
- Academia Researchers, students
- Other Research Institutes (such as Met Office, NSRI)
- Government (including large infrastructure projects; Civil Contingencies)
- Industry (Insurance or Oil&Gas as examples)
- Overseas Development (UN, African Union, NGOs; MapAction)





#### **Environmental Data Service - Vision**

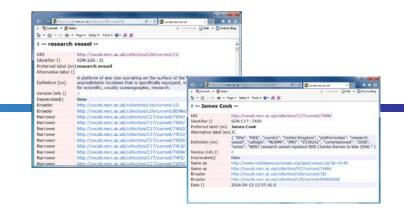
#### "Good data stewardship is the key to knowledge discovery and innovation"

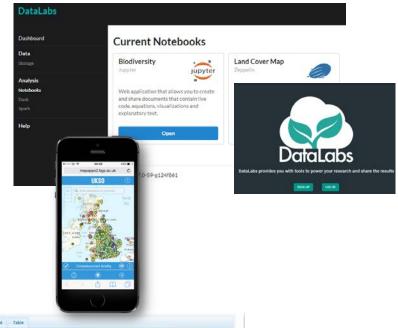
- The EDS will facilitate and increase knowledge discovery, access to, integration of and analysis of NERC data through the adoption of FAIR principles
- Delivery of these and new data services to support data integration will provide the wider research community with the ability to answer complex multidisciplinary research questions
- It will also enable engagement with industry, the commercial sector and wider society both nationally and internationally to create new knowledge and aid decision support to meet sustainable development goals

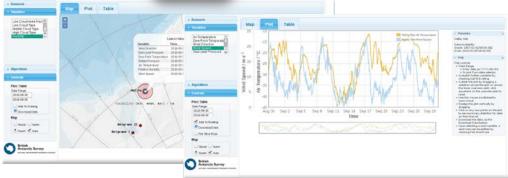


#### **EDS Integration Activities**

- Policies and procedures (Data Policy, Metadata Std, Charging & Licensing, DOI...)
- DataMAD Grant notification and sanctions
- Vocabulary Server
- OGC/API interfaces
- Data Labs (customised data tools and pipelines in the cloud)
- Large Volume Data Donation & Store
- Stakeholder Engagement
- Standards and global initiatives engagement
- Data Management training
- Knowledge Transfer (digital preservation)







#### Global Networks / Collaborations











































### **BODC - Special Contribution**

- Strategic leadership, knowledge and resource commitment;
  - For proactively pushing the global oceanography domain to manage its data (generating best practice, developing and maintaining standards, promoting interoperability and harmonisation)
  - Enabling knowledge exchange/transfer with other environmental domains (DMAG --> SIS --> EDS)
  - Enabling integration with other domains (European/global projects, standards and initiatives)
  - Providing the underpinning systems and solutions (NERC Vocabulary Server, clear open governance model)
- For asking those difficult and challenging questions......



Knowledge of all the best fish or vegetarian restaurants and pubs in all UK or EU cities.....





...and also yoga establishments









For being willing to discuss data management at any time, especially in bars or restaurants and also finding similar like-minded people from all over the globe

For your ability to get the best out of Mike Brown (SIS / EDS Programme Manager @CEH)







For being willing to travel to the harshest of locations to receive marine data or hold meetings and workshops





Really in Monaco!