

Ocean data dissemination

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Steve Hankin, Bob Keeley, Sylvie Pouliquen, Jeff de la
Beaujardière, Edward Vanden Berghe, Frédérique Blanc,
Margarita Conkright Gregg, Janet Fredericks, Derrick
Snowden

... and many others

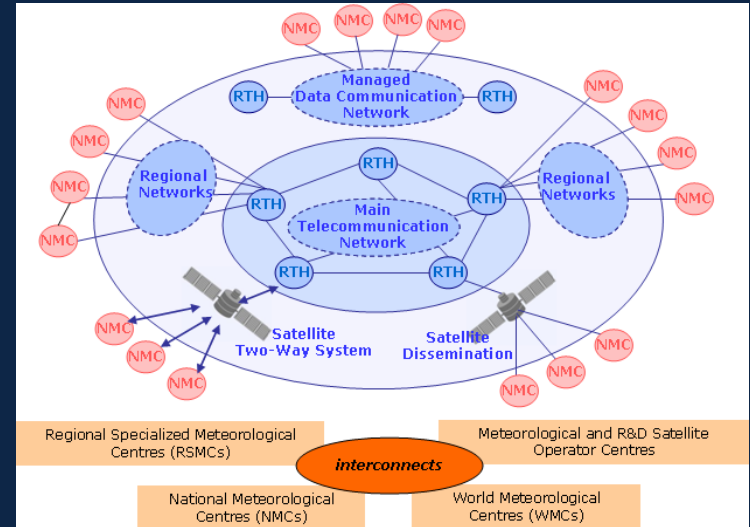
Drivers

- Modern science demands the ability to integrate different data streams
- We need to exchange data between communities

How do we disseminate data now?



The Internet



Global Telecommunications System (GTS)



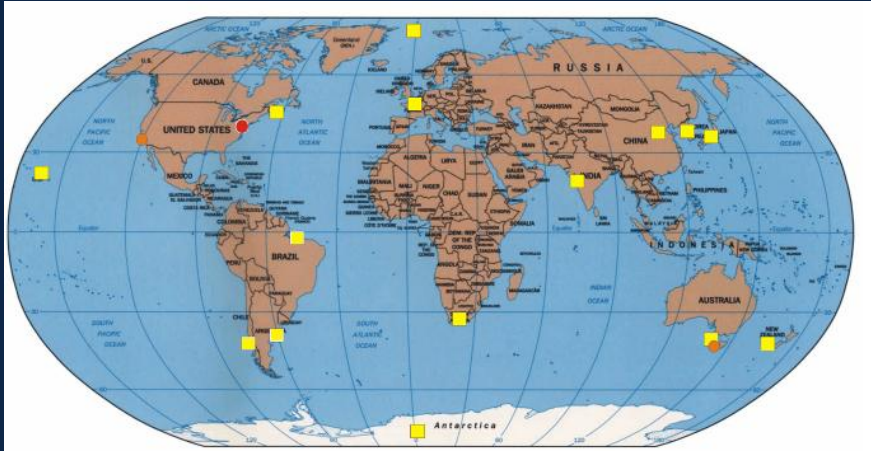
Paper records

Consistency is key

- Standardize data formats
- Standardize metadata in its various forms

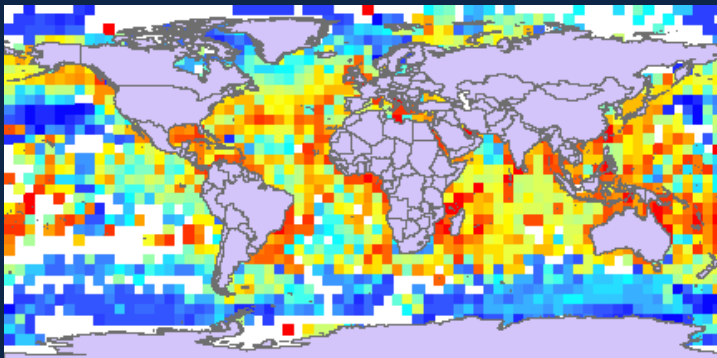
Hankin, Pouliquen,
Gregg, Fredericks,
Snowden, Blanc CWP's

Example: Ocean Biogeographic Information System (OBIS)

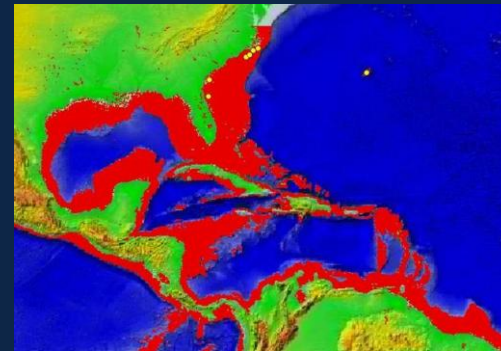


100,000 records viewed
or downloaded per day
18.5 million records
633 distinct datasets
105,000 species

Species richness



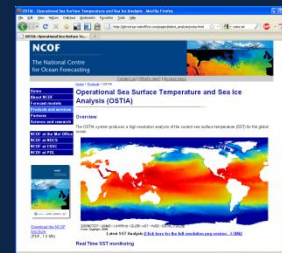
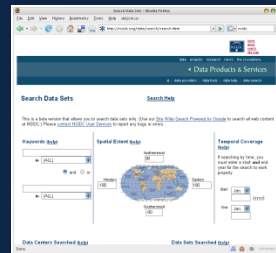
Vanden Berghe CWP



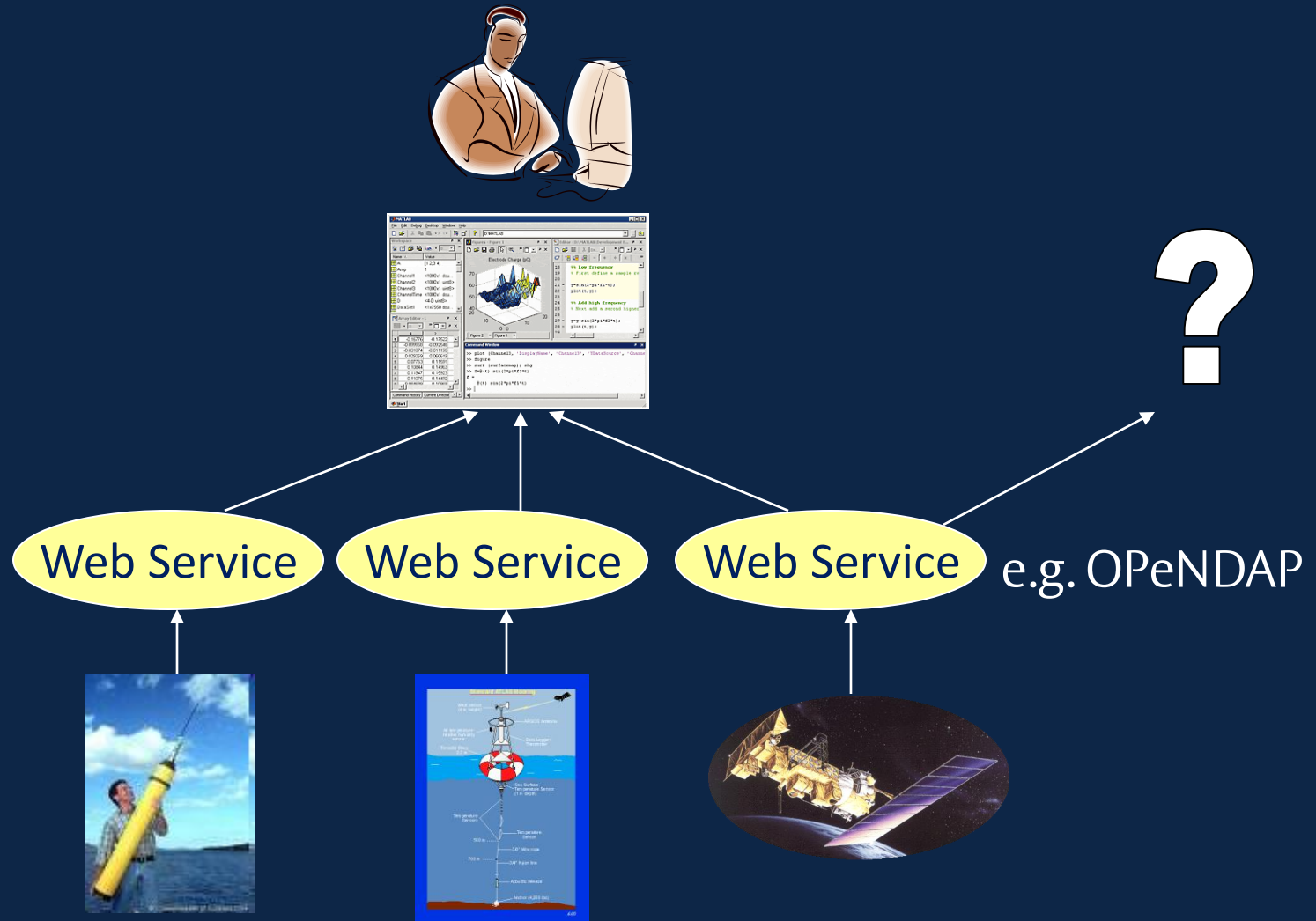
Potential
spread of
invasive
Species
(lionfish)

<http://www.iobis.org>

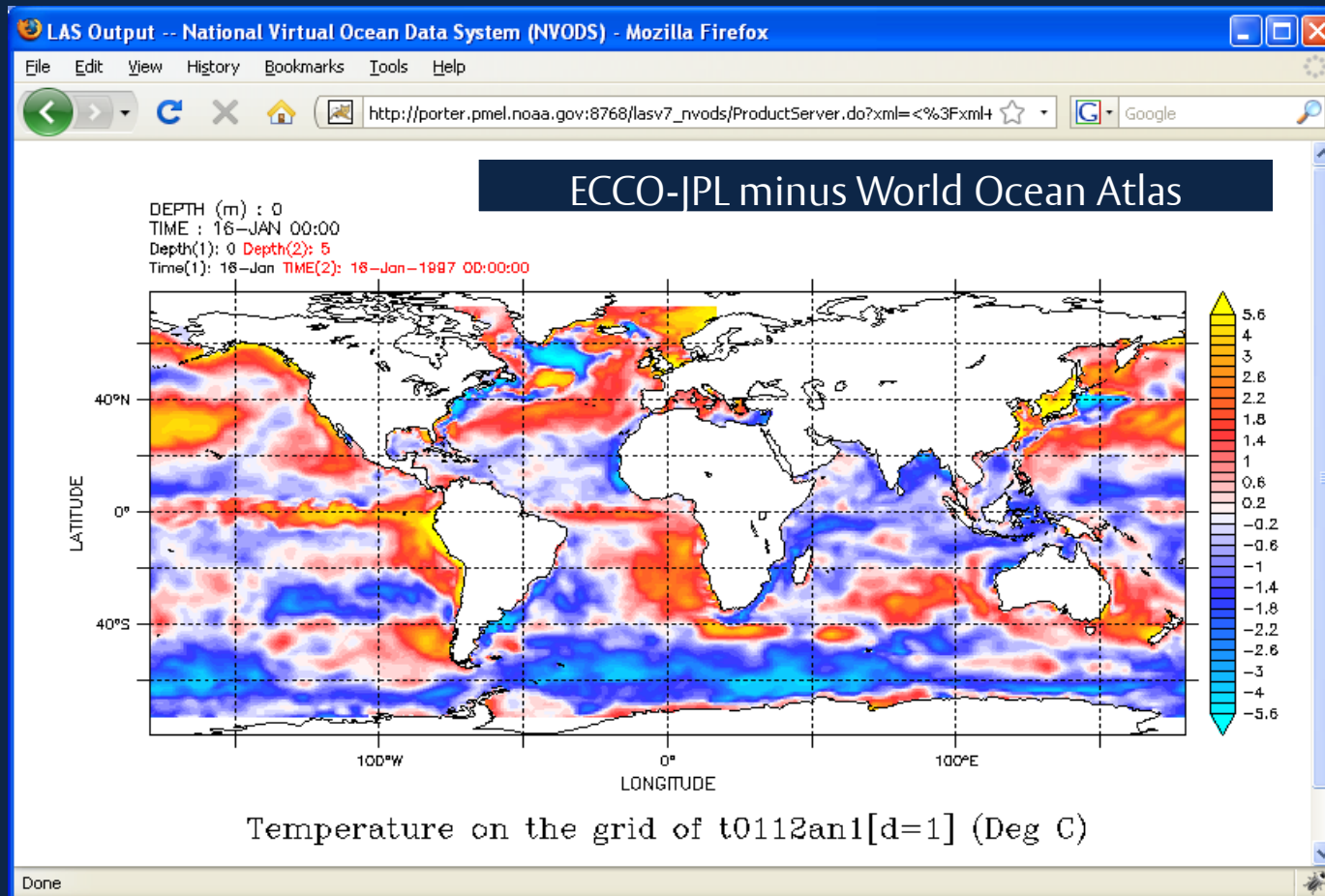
Internet dissemination: where we are now (mostly)



Plugging tools directly into data services



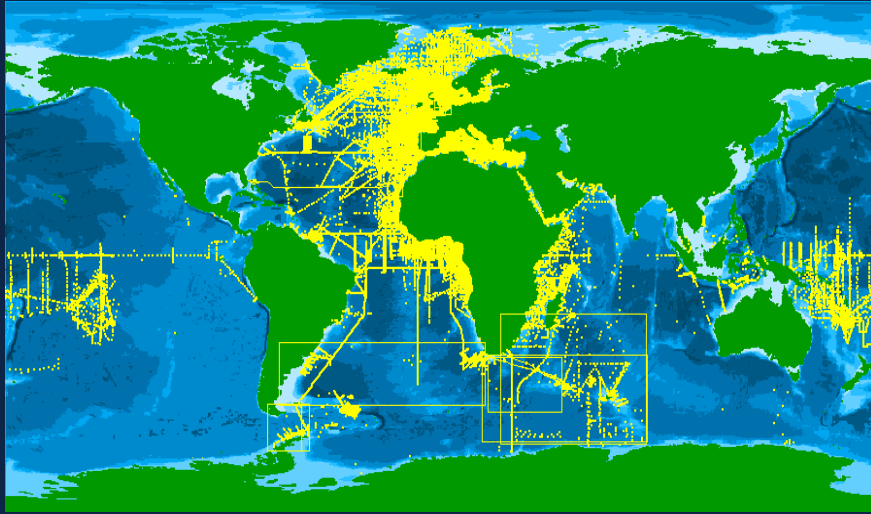
Example: intercomparison of distributed data



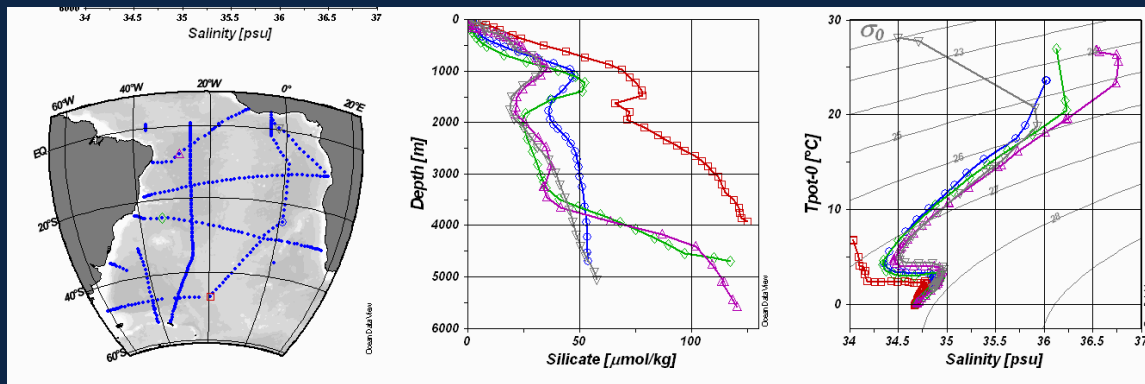
Consistency is key

- Standardize data formats
- Standardize metadata in its various forms
- Plug directly into data services
- Create integrated catalogues
- Streamline access control

Example: SeaDataNet

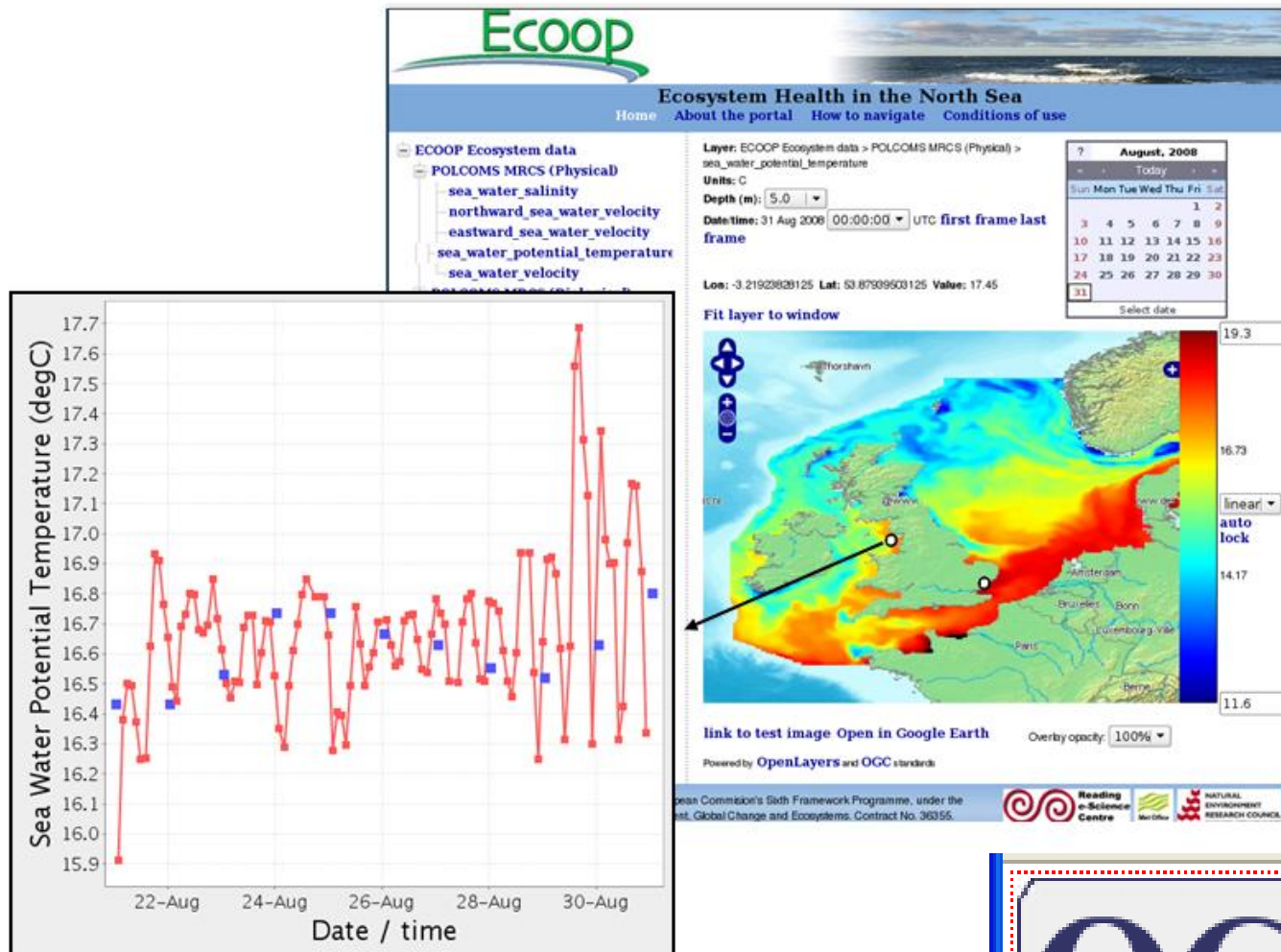


- Amazon-like discovery and delivery of data
- Integrates different data sources
- Single sign-on
- Links to Ocean Data View

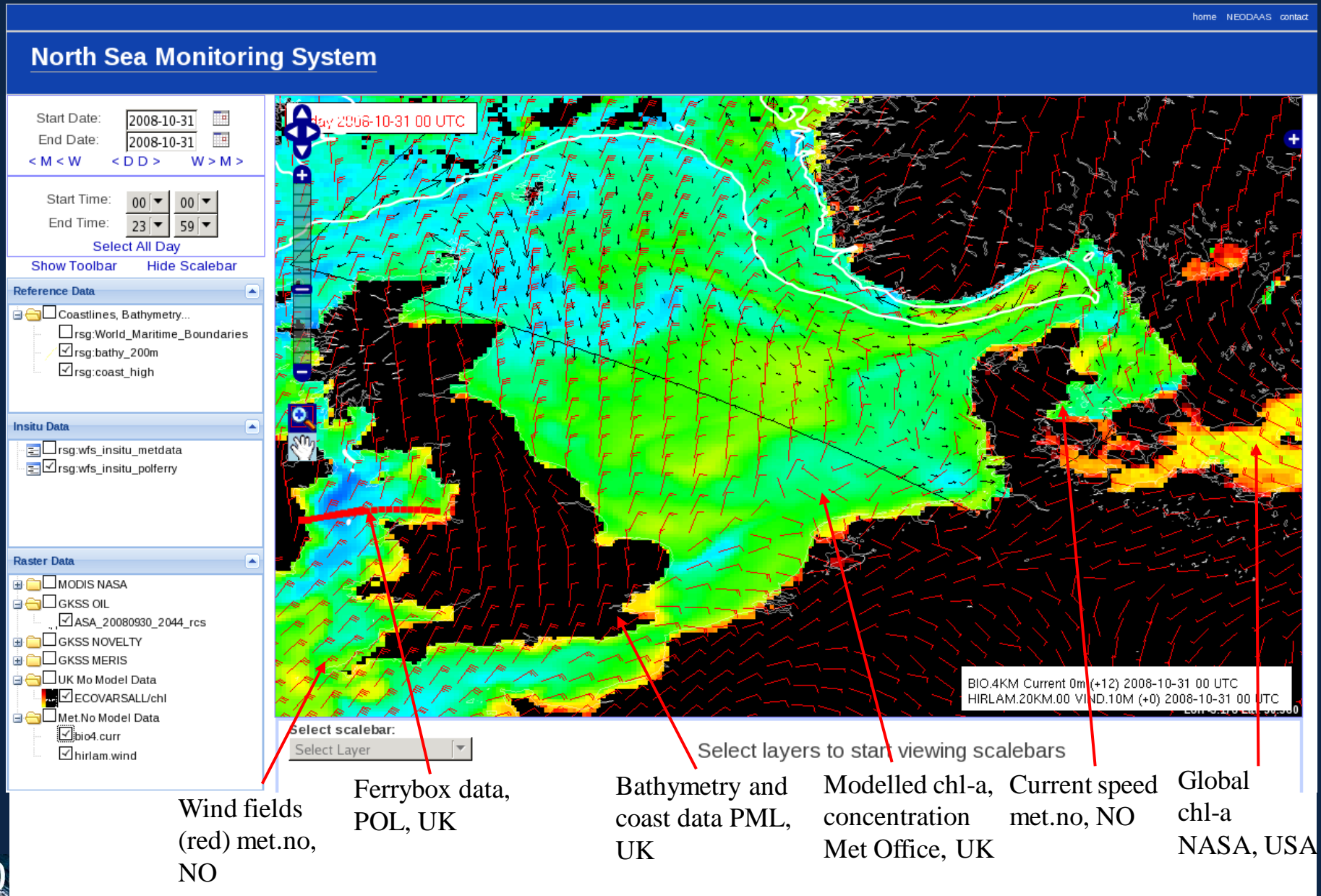


What can we achieve?

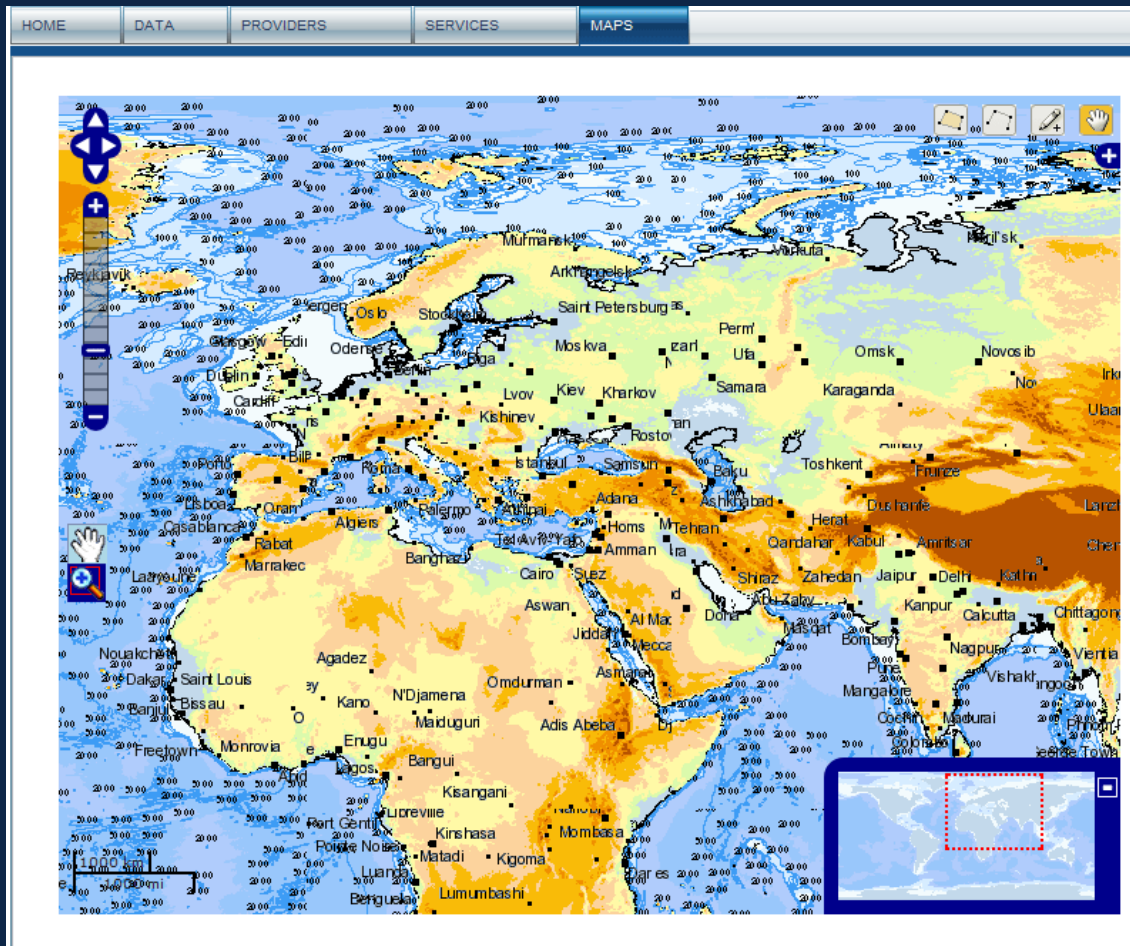
ECOOP data intercomparison portal



Interrisk portal (Plymouth Marine Labs, UK)



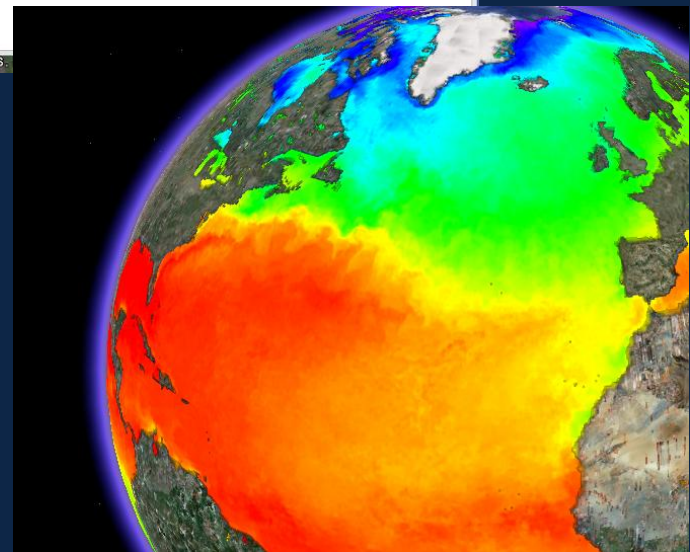
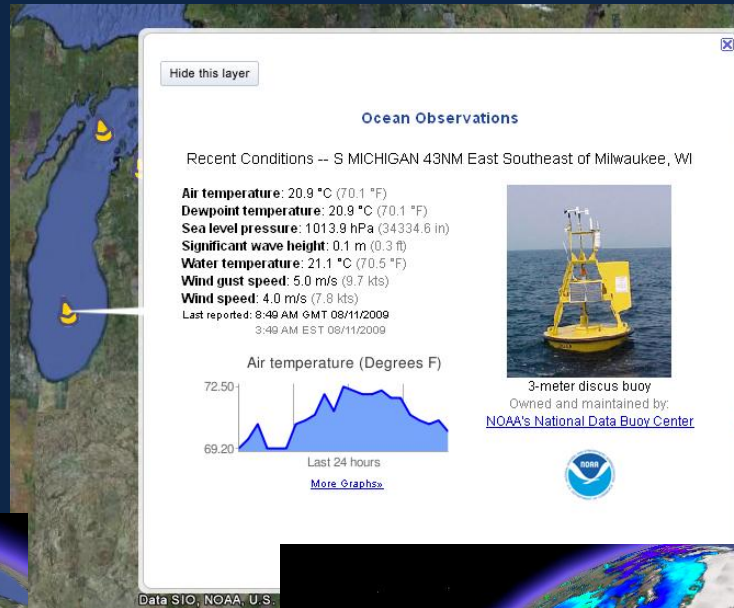
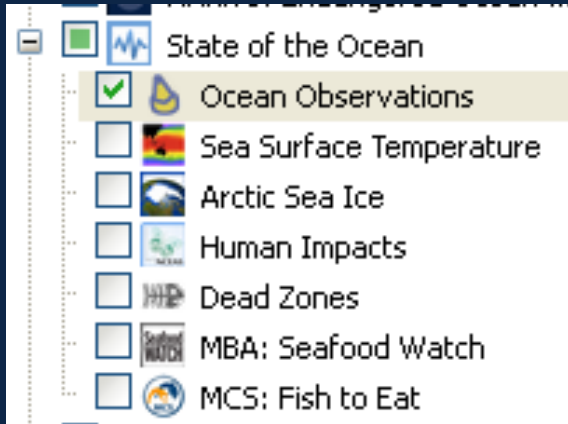
Ocean Data Portal



- Developed through International Oceanographic Data and Information Exchange programme
- Integrates data from National Ocean Data Centres

Reed CWP

Google Ocean: reaching the public



Some large integrating efforts



WMO Information System (WIS)



Global Earth Observation
System of Systems (GEOSS)



INSPIRE

Some Challenges

- Developing *and implementing* standards
- Balancing new and established technologies
- Serving multiple user communities
- Maintaining links between technical and user communities
- Long-term funding for data systems
- Opening access to data

Recommendations

1. Converge on small number of file formats
2. Pursue GIS approach, but proceed step-by-step and demonstrate benefit of each step
3. Set up cross-community pilot projects
4. Invest in linking data systems with end user tools