

OCEANIDS Command and Control (C2)

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**National
Oceanography Centre**
NATURAL ENVIRONMENT RESEARCH COUNCIL

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NERC SCIENCE OF THE
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Partners



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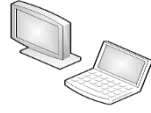
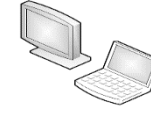
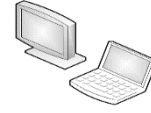
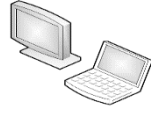
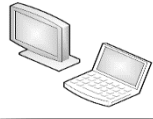
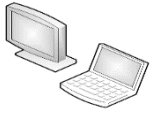
NMF



The Fleet



Problem 1 – Different Systems



Autosub

Slocum

C-Enduro

Seaglider

Waveglider

Autonaut

Long Range



- Different and inconsistent GUIs – Steep learning curve for pilots
- Non existent or poorly documented APIs – Difficult or impossible to integrate systems

Home / Research / National capability / Data centres / Data policy

Data policy

NERC has a well-established Data Policy that sets the ground rules that all those funded by NERC must follow in managing the data that they collect. The Data Policy details our commitment to support the long-term management of environmental data and also outlines the roles and responsibilities of all those involved in collecting and managing environmental data. Central to the policy is that NERC-funded scientists must make their data openly available within two years of collection and deposit it in a NERC data centre for long term preservation. The aim is that all NERC-funded data are managed and made available for the long-term for anybody to use without any restrictions.

- [NERC Data Policy \(PDF, 28KB\)](#)
- [Guidance notes for the NERC Data Policy \(PDF, 216KB\)](#)

NERC also recognises that model code and model data produced through NERC-funded research are valuable assets which should be preserved beyond the lifetime of the project. By preserving model code and data, other researchers can benefit from the outputs of previous NERC-funded research and it makes the research process more transparent and auditable.

- [Guidance on the preservation of NERC model code and model output \(PDF, 204KB\)](#)

Licensing & Charging policy

This policy describes why, when and how NERC will and will not apply charges for Environmental Data and Information Products. It underlines our commitment to apply any charges in a transparent and consistent way.

We have created the policy to be consistent with relevant legislation and Government guidance on charging for information, on open data provision and on licensing.

Central to the policy is that NERC will make its environmental data available free of charge apart from special cases that involve third party data. There may be a charge for information products. Where there is a charge, the charges and licensing arrangements will be clearly explained, compliant with Government legislation and guidance, and applied in a consistent manner.

In this section

- Data centres
 - Data policy**
 - Data management planning
 - Digital Object Identifiers
 - Town hall meeting

Related links

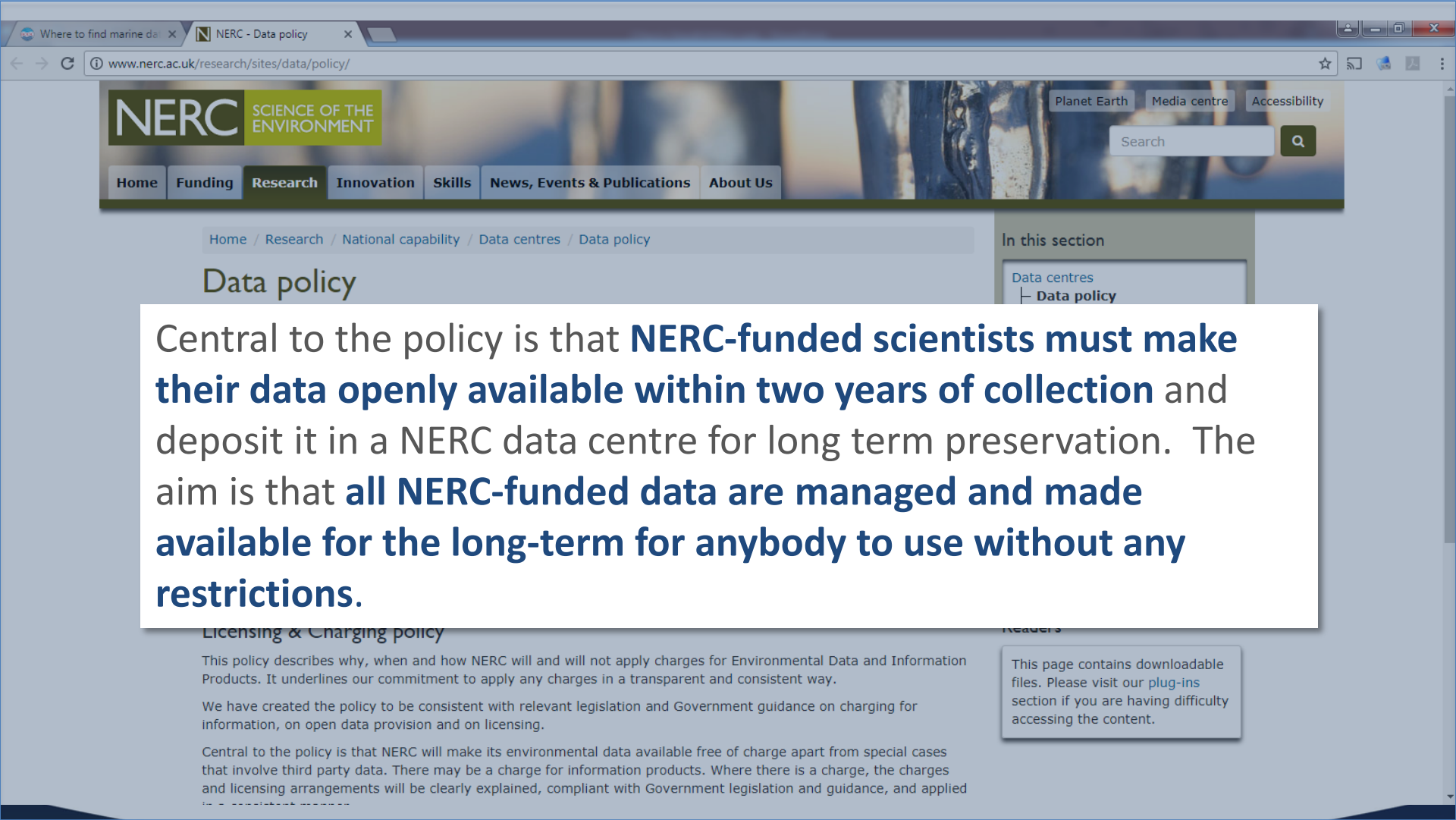
- [National Science Foundation](#)
- [INSPIRE Regulations 2009](#)

Downloads

- [Data Value Checklist \(PDF, 53KB\)](#)

Readers

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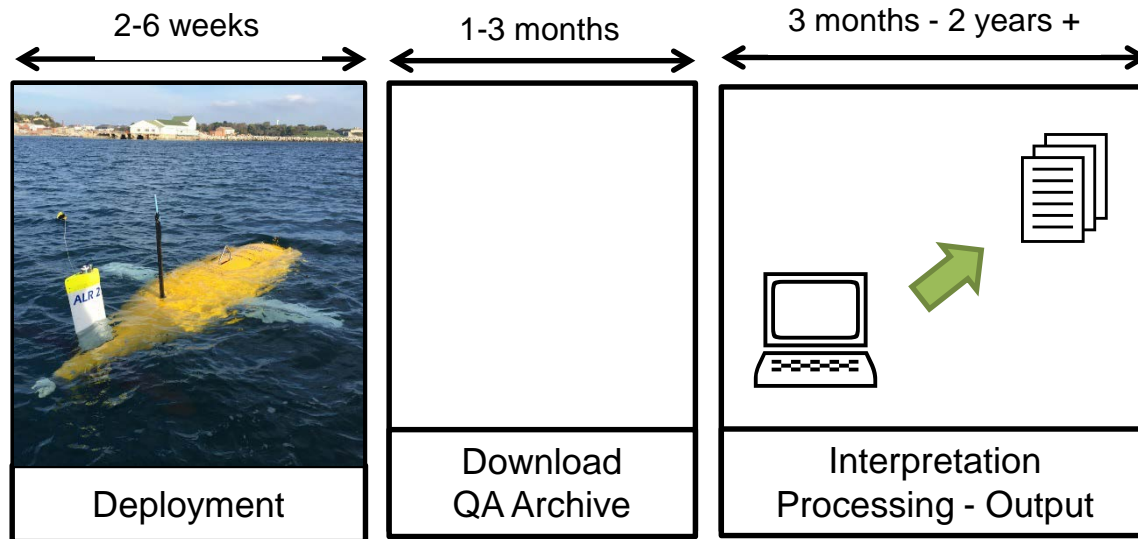
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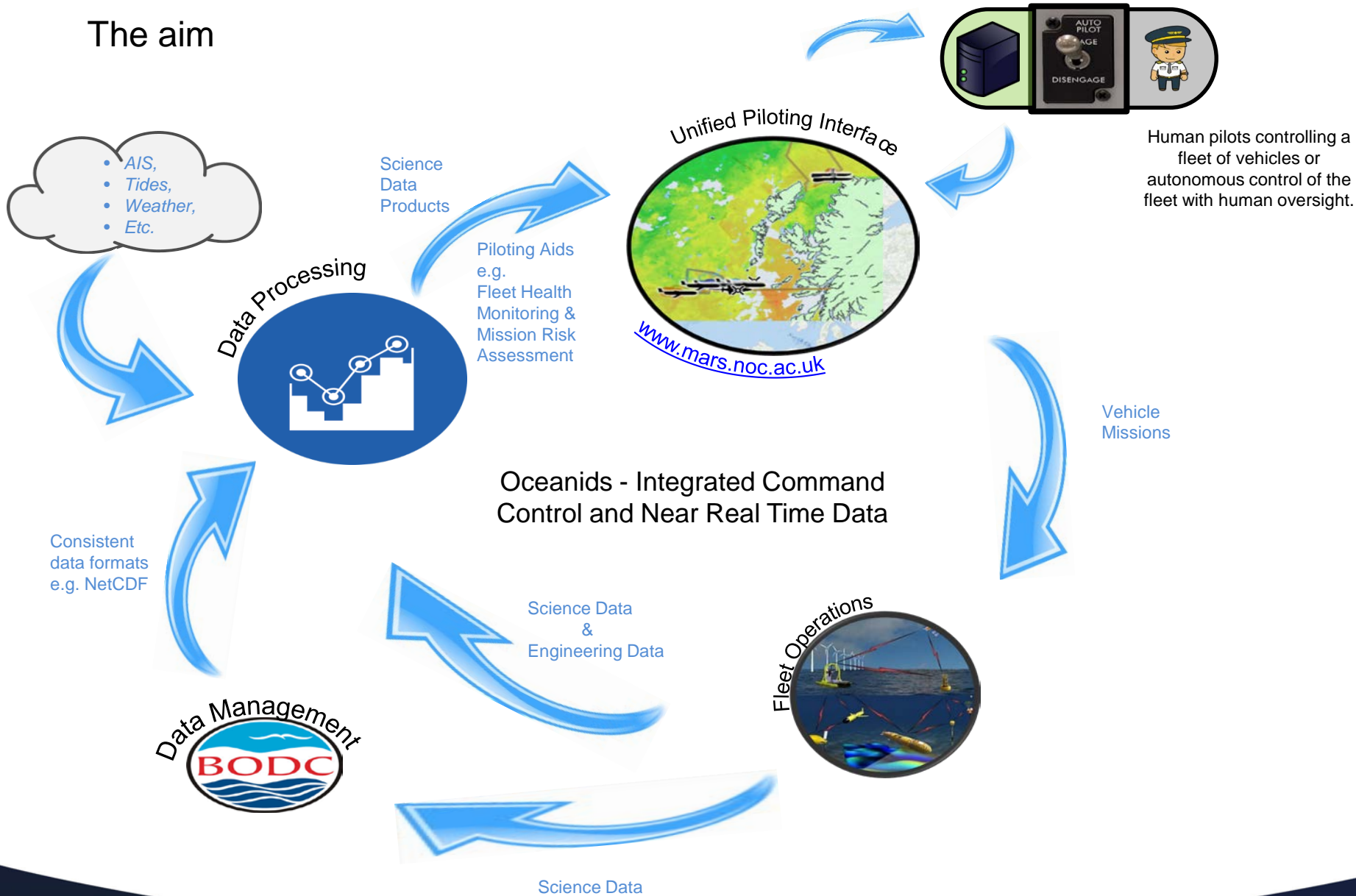
Problem 2 - Management and processing of data



It is all about the Data



The aim



BODC

- Provides the data knowledge:
 - Standardize vocabularies
 - International standard file formats
- In charge of the data delivery from the National Marine Facilities to the Scientist
- Development of 2 pipelines:
 - Near Real Time
 - Recovery mode and delayed mode
- Working on current standards (gliders)
 - The current C2 implementation generates EGO Netcdf minutes after the data has been received from NMF
- Working of new platforms (Autosub Long Range)
 - New engineering vocabularies for AUVs



Benefits for the UK Scientific Community

The project will give Scientists:

- Quicker access to their data.
- Better visibility of the state of the data.
- A number of machine to machine tools to exploit the data.
- Intuitive tools for mission planning and piloting, no matter what platform has been chosen.

Project Objectives

1. Provide a unified infrastructure to pilot the NERC fleet.
2. Automate transfer and archiving of science data into the BODC
3. Implementing a straight forward access to the data.
4. Develop the infrastructure to allow piloting automation.
5. Provide the system as a National Infrastructure.

Where is BODC taking us?

- Near real time data delivery to scientists
- Machine to machine interactions
- Near Real time QC of data coming from autonomous platforms
- Friendly APIs for developers
- Scale to hundreds or thousands of devices and millions of measurements in NRT
- All data is FAIR



Thanks

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