



RDA Marine Data Harmonisation IG

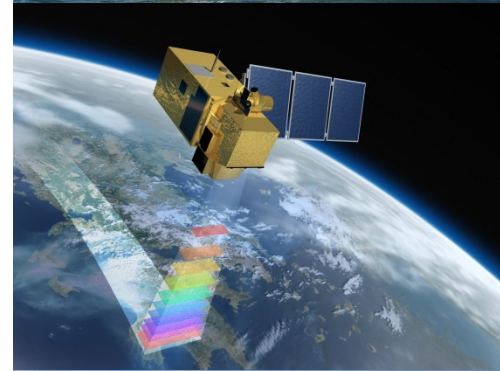
research data sharing without barriers
rd-alliance.org

Oceanographic data

- Wide range of measurements and variables
- Derived from broad spectrum of multidisciplinary projects/programmes
- Collected by multitude of research institutes, governmental organisations and private companies
- Using various sensors to measure physical, chemical, biological, geological and geophysical parameters

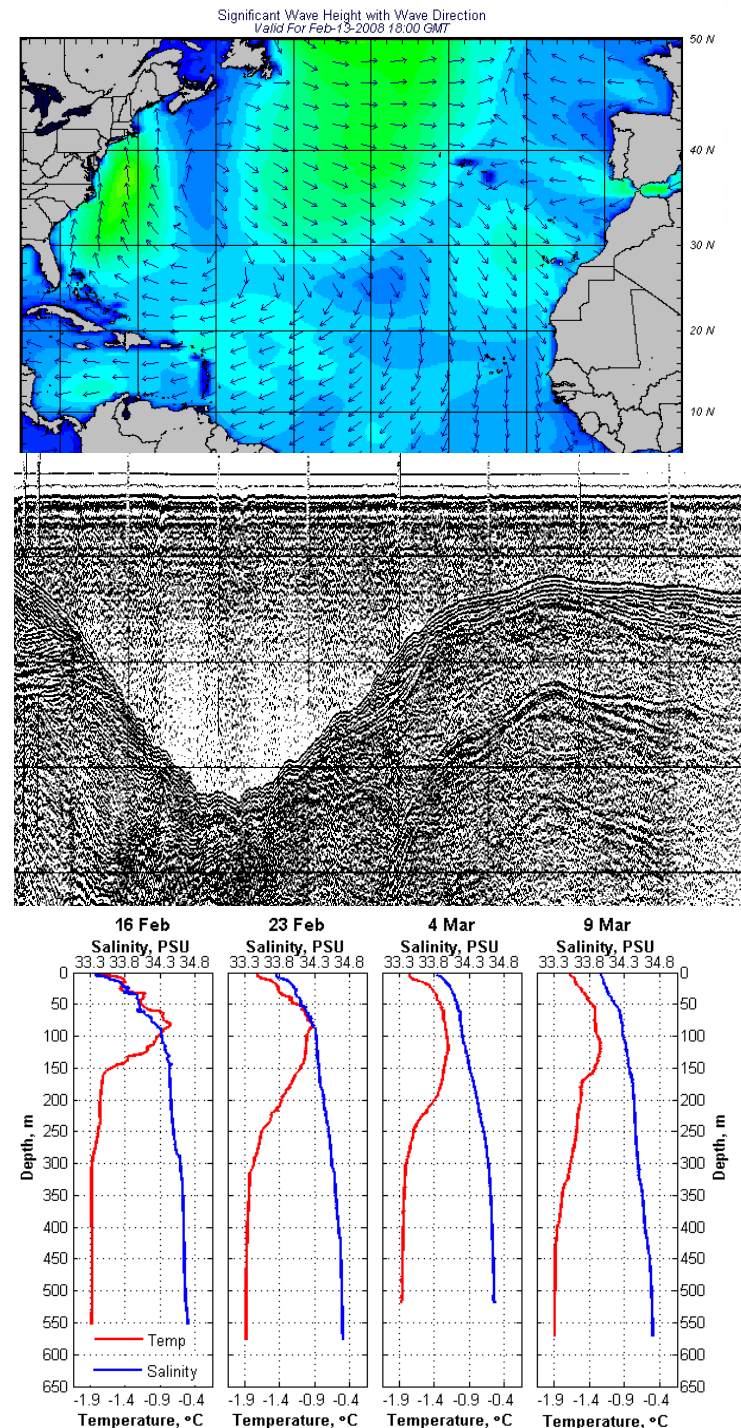
Data acquisition

- Sensors installed on various platforms:
 - Research vessels
 - Satellites
 - Buoys/floats/gliders
 - Aircraft
 - Submersibles
 - Fixed moorings
 - Fauna



Barriers to re-using data

- Use of different
 - Formats
 - Standards
 - Best practice
 - Co-ordinate systems
 - Technologies
- National and organisational data access policies



Marine Data Harmonisation IG

Background

- Science domain focused IG/WG for marine research
- Promoting a common global framework for marine data management
- Working closely with other related initiatives:
 - ODIP
 - Belmont Forum
 - IOC-IODE



Co-chairs

- * Helen Graves (NERC-BGS, UK)
- * Dawn Wright (ESRI, USA)
- * Cyndy Chandler (WHOI, USA)



Community



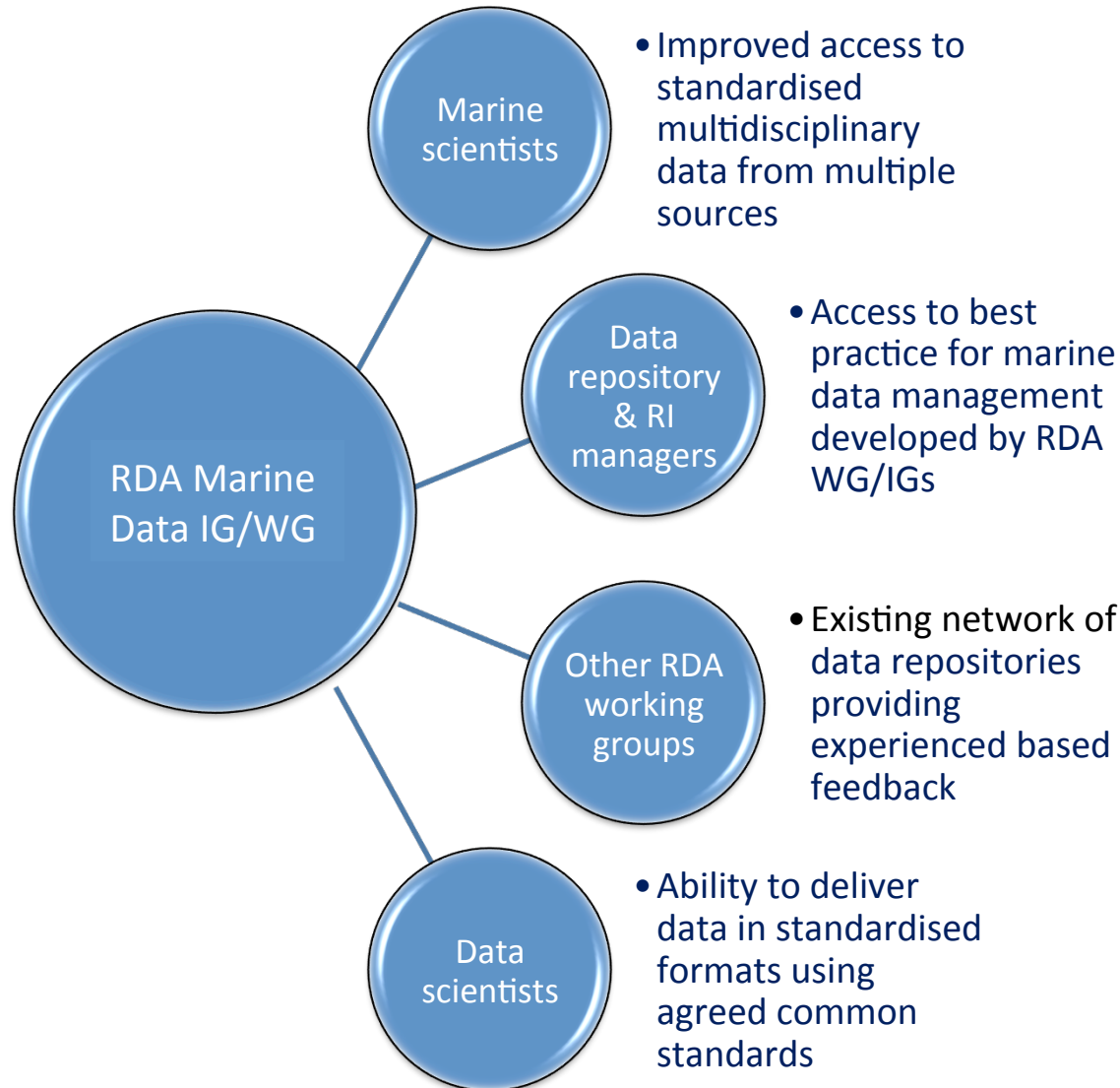
Marine Data Harmonisation IG



Objectives

- Promote the development of a common global framework for the management of marine data
- Identify the challenges and barriers to establishing interoperability of data and services in the marine domain.
- Promote the use of common standards and best practice across the marine data management community
- Inform the activities of other RDA IG/WGs with relevant input and feedback from the marine domain
- Disseminate the outcomes of relevant RDA WGs/IGs to the marine data management community

Beneficiaries of the RDA Marine Data Harmonisation IG



RDA WG/IG engagement

Working Groups

- Brokering Governance
- **Data Citation**
- **Data Foundation and Terminology**
- **Data Type Registries**
- **Metadata Standards**
- PID Information Types

Interest Groups

- Brokering
- Data Fabric
- Metadata
- Preservation e-infrastructure
- Publishing data
- Vocabulary Services

Adopt a Deliverable?

RESEARCH DATA ALLIANCE OUTPUTS



Working group outputs directly addressing current issues in the marine domain

- Data Type Registries
- Metadata standards directory
- Data Citation
- Data Foundation & Terminology

Data type registries

- Marine research moving towards ecosystem level science
- Researchers need large volumes of good quality data which is readily available
- Increasing need to work with unfamiliar data types from other disciplines
- Use of the DTR allows definitions of specific data types to be added to the open registry by the data 'creators' and/or repository

Metadata Standards Directory

- Metadata standards: fundamental to developing a common approach to marine data management
- Domain specific metadata standards in use:
 - regional e.g. European Common Data Index (CDI)
 - national e.g. Marine Community Profile (MCP); MEDIN
- RDA metadata standards directory can be used in this context
- Marine domain can provide suitable use cases

Data Foundation & Terminology

- Marine research increasingly multidisciplinary
- Interaction with experts from other domains
- Differences in understanding of basic terms and concepts.
- Need a common level/language of understanding

Data Citation

- Marine data is highly heterogeneous
- Various sensors many producing continuous marine monitoring data e.g. CTD
- Increasing use of sensor web enablement (SWE) and sensor observation services (SOS)
- Requires mechanisms for dynamic citation of data - 'snap shot' of the dataset

RDA Marine Data IG activities

- Develop and disseminate documentation supporting adoption of selected ‘community standards’ and best practice for marine data
- Extend and modify these standards through consultation with existing related initiatives and other community forums in marine domain
- Identify use cases demonstrating the implementation of selected RDA WG recommended standards or best practice

**Comments or
questions welcome**

Thank you!

