

Management of the UK's marine environment is complex and fragmented since there is no single co-ordinating body. Marine data and information are scattered across a variety of government departments and agencies, other public bodies and the private sector. Often new initiatives and projects involve extensive and costly data and information collation and synthesis, with consequential repetition of effort.

Organisations frequently require essentially the same data, but collate them separately, sometimes with uncertainty regarding data quality. This would be unnecessary if there was a single approved source of these geospatially-referenced data.

The UK's Department for Environment, Food and Rural Affairs (Defra) has funded two workshops between 1999 and 2002 in order to highlight and address these issues.

The outcome of each of these workshops, and a summary of progress to date is given below:

Integrated mapping of the UK marine and coastal zone – the way forward, June 1999¹

Priorities:

1. Raise the profile
2. Invest to save
3. Establish a co-ordination mechanism
4. Provide better access to information
5. Establish core datasets
6. Carry out appropriate research



Progress since 1999:



www.oceanet.org



www.iczmap.com



www.cefas.co.uk/coastmap

Coastal Information Network (since November 2002)

National Coastal Data Co-ordinator (Jule Harries)
 EA Coastal Data Co-ordinator (Tim Sawyer)
 EA Data Partnership Manager (Mike Rose)
 MED Co-ordinator (Lesley Rickards)
 Chair (Mike Cowling)

Delivering Integrated Marine Mapping for the UK, September 2002²

Priorities:

1. Confirm user needs
 2. Conduct an audit to determine current availability of data and information and to raise awareness of what exists and where.
 3. Prepare a business case to demonstrate the benefits of investing in greater effort in this area
 4. Secure a national commitment to provide common, frequently used, base data free of charge
 5. Establish centres of expertise for the collection and curation of different types of data
 6. Increase awareness of existing international standards for metadata
- It was agreed that Defra would take the lead, working through the Inter Agency Committee for Marine Science and Technology (IACMST) in order to achieve these aims.



What do we have in place already...?

Co-ordination already exists in the form of cross-sectoral advisory groups



Funding exists from a number of sources, such as:



Recognised standards already exist for metadata and interoperability frameworks:



Some Data Portals already exist for specific user groups...

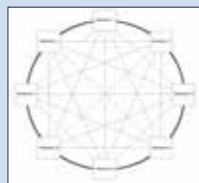
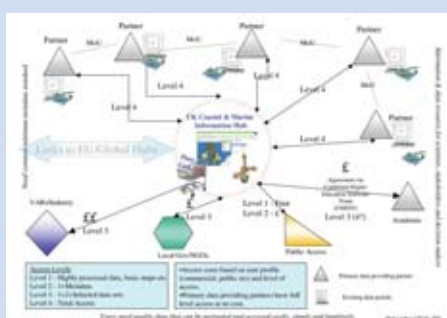


The way forward is to harmonise these to develop a UK marine information system

Plans exist for how this might be achieved, as the following examples illustrate:

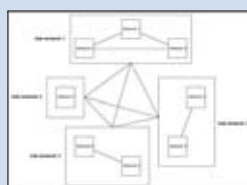


Provided by John Pepper, UK Hydrographic Office



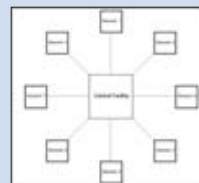
This scenario links all of the existing networks together and treats them as independent entities. This means that they are all operating separately without any overall management structure. Working this way allows each network to control its own business strategy but it creates the possibility of incompatible systems being developed between the networks.

A common set of rules is needed and each network must agree to apply, implement and maintain them.



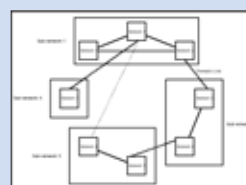
Scenario 3 is a "half way house" between Scenarios 1 and 2 as it is linking the networks through sub-networks that may be determined by such issues as locations, industries, business interests, funding etc. Each sub-network needs to develop a set of rules and each, within the sub-network, must agree to apply, implement and maintain them.

Similarly the sub-networks that are linked together must develop a set of rules and each network, within the sub-networks, must agree to apply, implement and maintain them.



This scenario links all of the existing networks together via a central facility or hub. This will ensure that all network systems will be compatible and only one management organisation will be involved. It is equivalent to all of the networks being outsourced to, and managed by, one organisation to provide a one stop shop facility for data services.

However it may prove to be the most difficult scenario to achieve as organisations may not be willing to participate in such a venture because of the loss of control of their business strategies.



Scenario 4 is an extension to the concepts of Scenario 3 by the addition of services based on thematic themes.

It allows for a network to work within a sub-network as well as to independently work with another sub-network, say on a thematic theme basis, providing it agrees to apply, implement and maintain the rules of the "external" sub-network.

This approach is closest to that adopted by WaveNet where wave data from WaveNet CEFAS buoys is supplemented with wave data from the Met Office and Shell networks.

Provided by UK Marine Information Council

What do we need...?

"Although the building blocks for an integrated marine and coastal mapping system of the UK are already in place, the tools for putting and keeping them together are lacking. There is therefore an urgent need to develop a permanent mechanism to provide strong co-ordination and leadership and take a pro-active approach"

Integrated mapping of the UK marine and coastal zone - the way forward, June 1999

The IACMST will be producing a strategy paper outlining the way forward by the beginning of 2004.

References:

- ¹ Franklin, F.L. and Hurrell, V.L. (compilers), (1999). Integrated mapping of the UK marine and coastal zone - the way forward. Report of a workshop held at CEFAS Lowestoft Laboratory, 17-18 June, 1999: 56pp. www.cefas.co.uk/coastmap
- ² Franklin, F.L. (2002). Delivering Integrated Marine Mapping for the UK. Report of a Defra-funded workshop held at Church House, London, 11 September 2002. 81pp. www.cefas.co.uk/coastmap