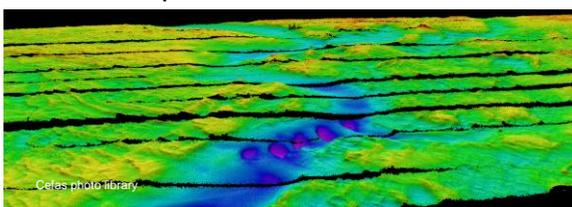




Department
for Environment
Food & Rural Affairs

Policy needs for new monitoring technologies

Presented by: Richard Emmerson
Defra
Date: 10 September 2013



UK Marine Vision

*'Clean, healthy, safe,
productive and biologically
diverse oceans and seas'*

Outcomes

- Good Environmental Status for UK seas by 2020
- Secure healthy food supplies from sustainable fisheries
- Sustainable growth in the wider marine economy



UK Marine Science Strategy

- evidence required to demonstrate sustainable development within the UK marine vision
- delivery of world class marine science
- fulfil statutory and international requirements for marine monitoring and assessment
- improve UK marine science co-ordination



 Department for Environment, Food & Rural Affairs

Defra's investment in marine and fisheries evidence

Monitoring is a key area of activity for Defra.

- EU Data Collection Framework for fisheries data and monitoring
- Marine Strategy Framework Directive – targets and indicators
- Contaminants, eutrophication and biodiversity



Cefas photo library

 Department for Environment, Food & Rural Affairs

4

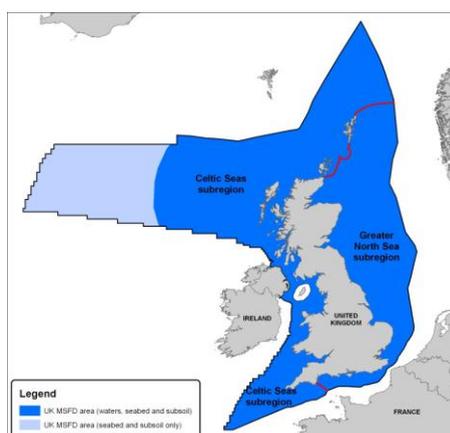
Defra's investment in marine and fisheries evidence

Evidence development

- Marine environment
 - understanding its state
 - pressures and impacts of marine activities
 - measures for sustainable management
- Marine biodiversity – including MPAs
- Sustainable fisheries – legislative requirements

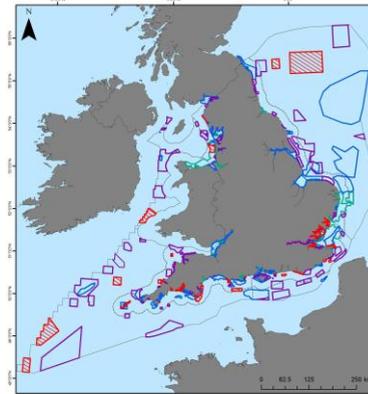
Marine Strategy Framework Directive Good Environmental Status in UK Seas

- Biodiversity
- Non-indigenous species
- Commercial fish
- Food webs
- Eutrophication
- Sea floor integrity
- Hydrographic conditions
- Contaminants
- Litter
- Underwater noise



Marine Conservation

- An ecologically coherent network of marine protected areas
- Evidence requirements on habitats, species, ecological processes
- Identification, management and monitoring



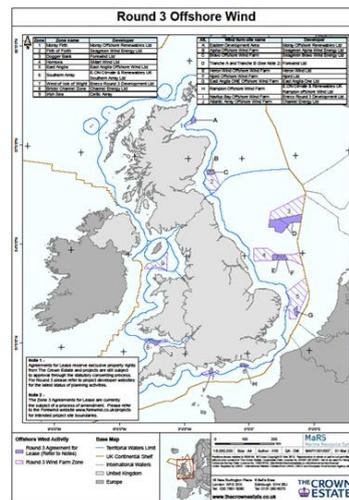
Sites overview

▨ MCA's put forward for designation in 2013 — Regional MCA project area
 Recommended MCA — 12NM Territorial Seas Limit
 SACs with Marine Components Land
 SIPAs with Marine Components

Content information from the Database for the Crown Copyright and Database Right 2013. Database Number: 10002021. LATCH Data © British Crown Copyright. All rights reserved. Permission Number: DEFRA/2012/001. This product has been derived in part from material obtained from the UK Hydrographic Office with the permission of the Controller of Her Majesty's Stationery Office and the Hydrographic Office (as published by Natural England/2012/001). The exact limits of the UK Territorial Seas Limit (TSL) are set out in letters under section 1(1) of the Continental Shelf Act 1968. The regional MCA project area follows the MCA's in English waters. Map projection: WGS84.

Sustainable development of marine activities

- Significant new marine infrastructure development
- Improve evidence to manage consenting risk
- Need for evidence from pre-application survey and post-consent monitoring, on
 - Use of development areas by marine species
 - collision rates and collision risk
 - displacement



Working in partnership to deliver

- MSCC
- UK Marine Monitoring and Assessment Strategy
- MEDIN
- UK-IMON
- Jointly designed and funded programmes with:
 - Other EU Member States
 - Private Sector



Future challenges

- Decreasing budgets
- Smarter ways to gather, analyse and share data
- New technologies and approaches
- More innovative ways of gathering evidence
- Joint monitoring programmes with Europe.



Photo of NERC Autosub600 prior to deployment
© NOC

Questions to keep asking ourselves:

- Are new data needed?
- Are we being realistic about cost of new data requirements?
- Is our approach 'fit-for-purpose'?
- Are we future-proofing?
- Are we evaluating the impact and value of evidence?



© Natural History Museum



© Fotosearch 11

Key Priorities

- Short term (6 to 24 months)
 - cost-effectiveness of monitoring
 - smarter use of existing platforms
 - improved data on impacts of key infrastructure
 - evidence to influence European developments on monitoring tools
- Medium term priorities (2-5 years)
 - as above
 - improved monitoring data on species, habitats and ecological processes
- Longer term (5-10 years)
 - as above
 - better understanding of environmental change