Development of the Evidence Base for Marine Planning in England
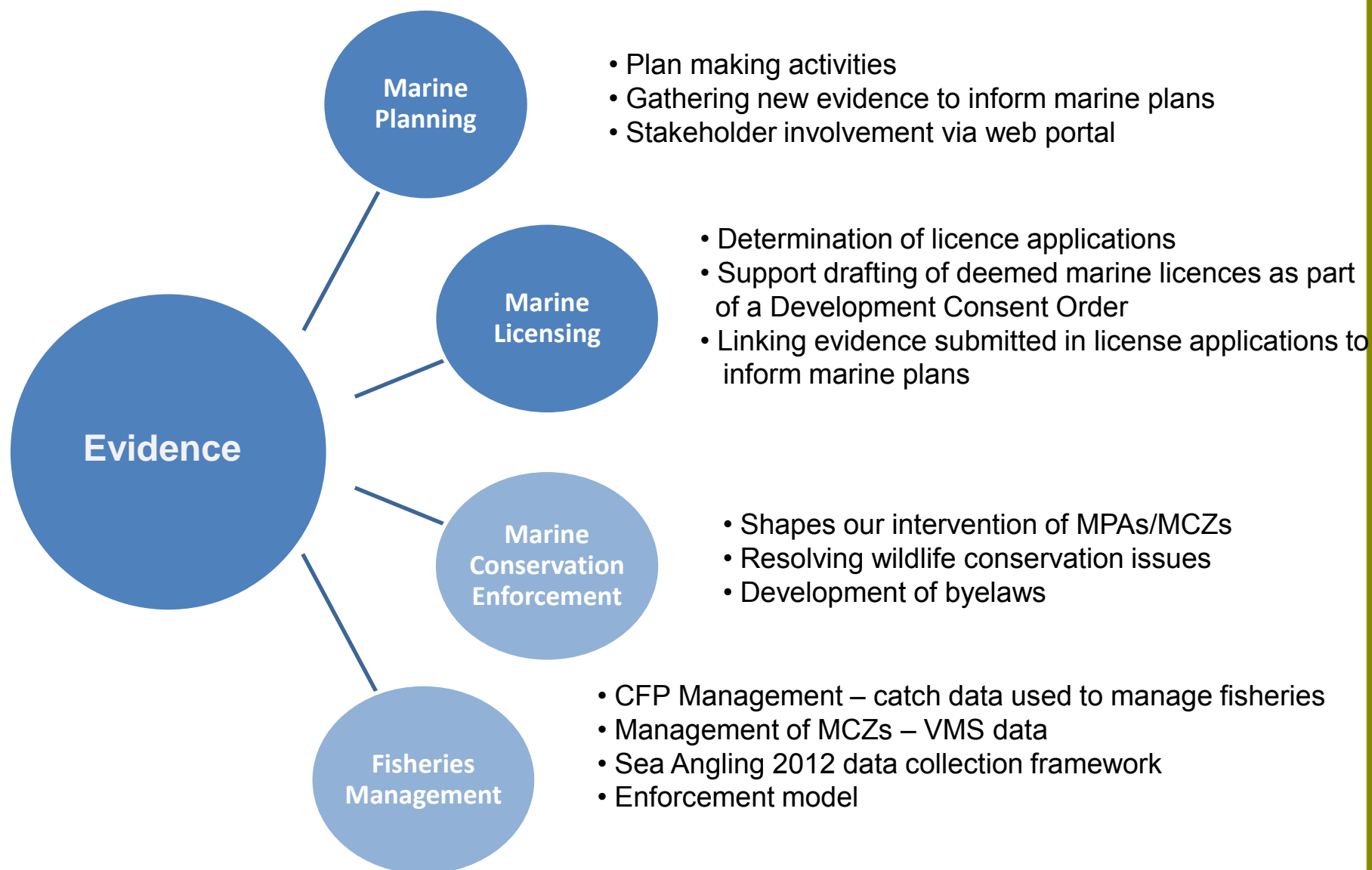
PartiSEApate workshop, Hamburg

Duncan Hume
Data Manager
15th October 2013

MMO Roles and Responsibilities

- Established in 2010 to promote the UK government's vision for clean, healthy, safe, productive and biologically diverse oceans and seas.

- Non-departmental public body given powers under the Marine and Coastal Access Act 2009 covering **England**

- Wide range of responsibilities:
  - implementing a new marine planning system,
  - licensing marine works,
  - fisheries management, including administering the European Fisheries Fund (EFF) in England, and
  - marine nature conservation and enforcement

- Sponsors: Defra, DECC, MOD, DfT and DCLG

Who Uses Evidence at the MMO?

Marine Planning

- Plan making activities
- Gathering new evidence to inform marine plans
- Stakeholder involvement via web portal

Marine Licensing

- Determination of licence applications
- Support drafting of deemed marine licences as part of a Development Consent Order
- Linking evidence submitted in license applications to inform marine plans

Evidence

Marine Conservation Enforcement

- Shapes our intervention of MPAs/MCZs
- Resolving wildlife conservation issues
- Development of byelaws

Fisheries Management

- CFP Management – catch data used to manage fisheries
- Management of MCZs – VMS data
- Sea Angling 2012 data collection framework
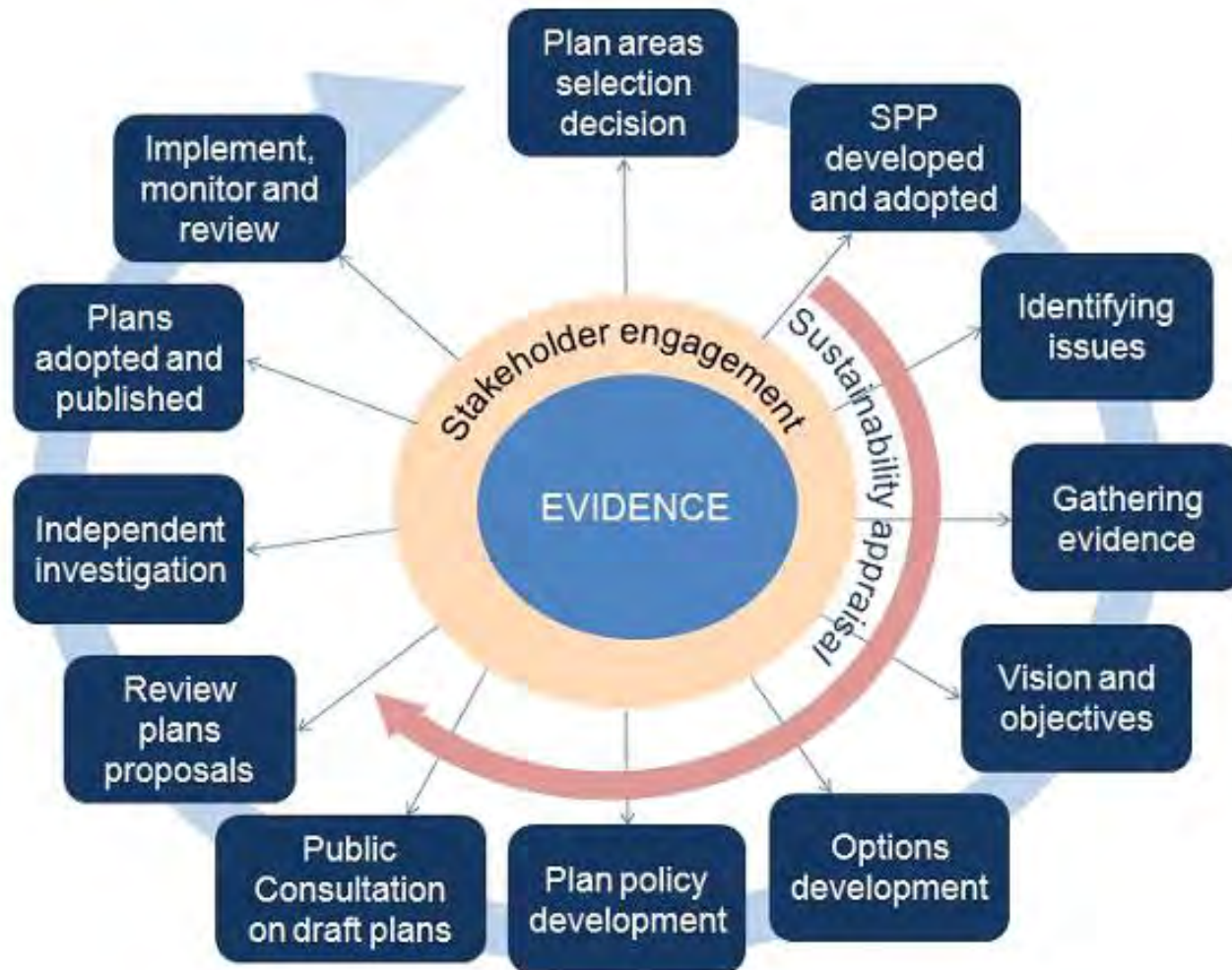- Enforcement model

Marine Plan Areas

11 areas (10 plans)

East Plans (Flamborough Head to Felixstowe) now out to public consultation

South Plans

(Folkestone to river Dart in Devon) currently under development
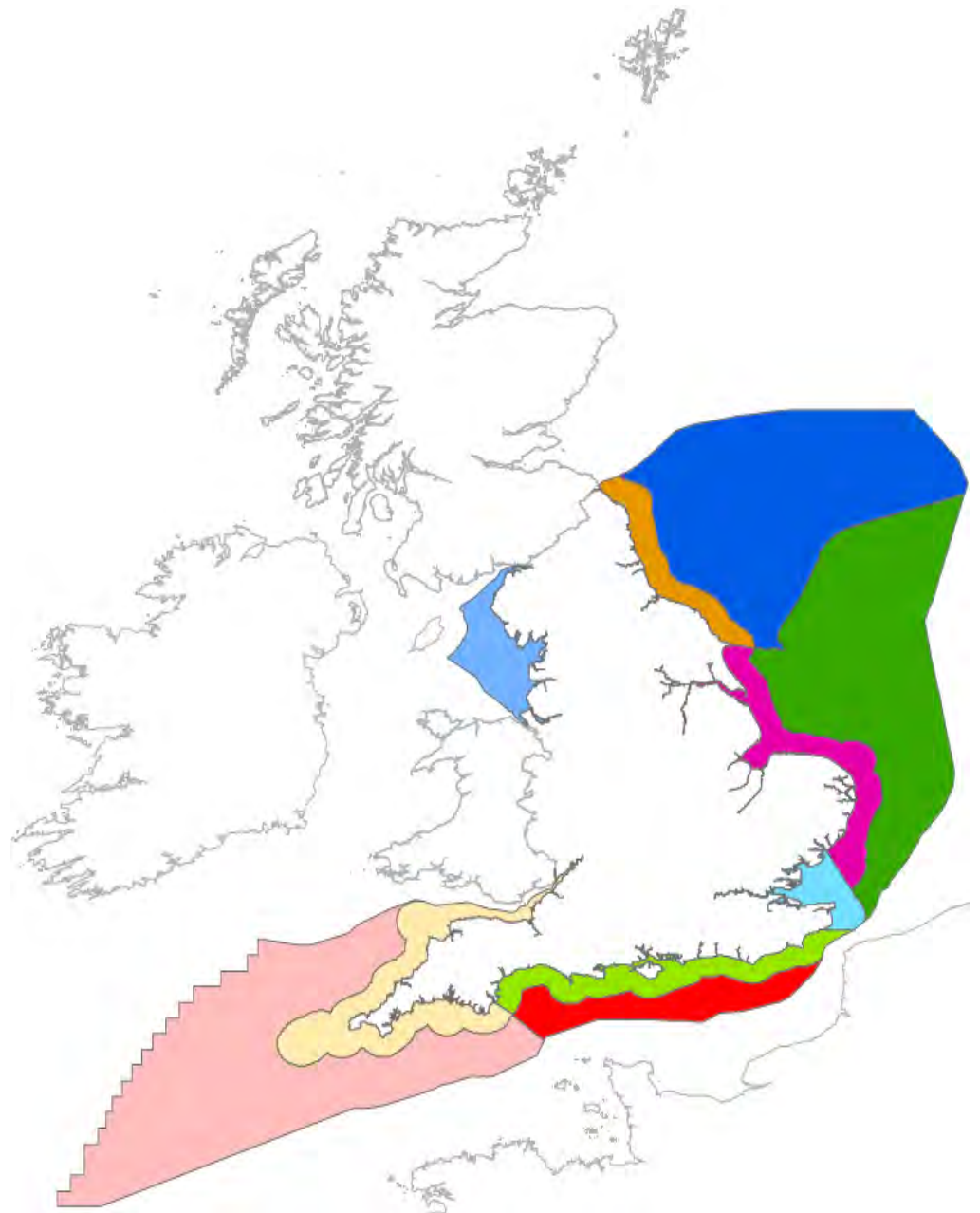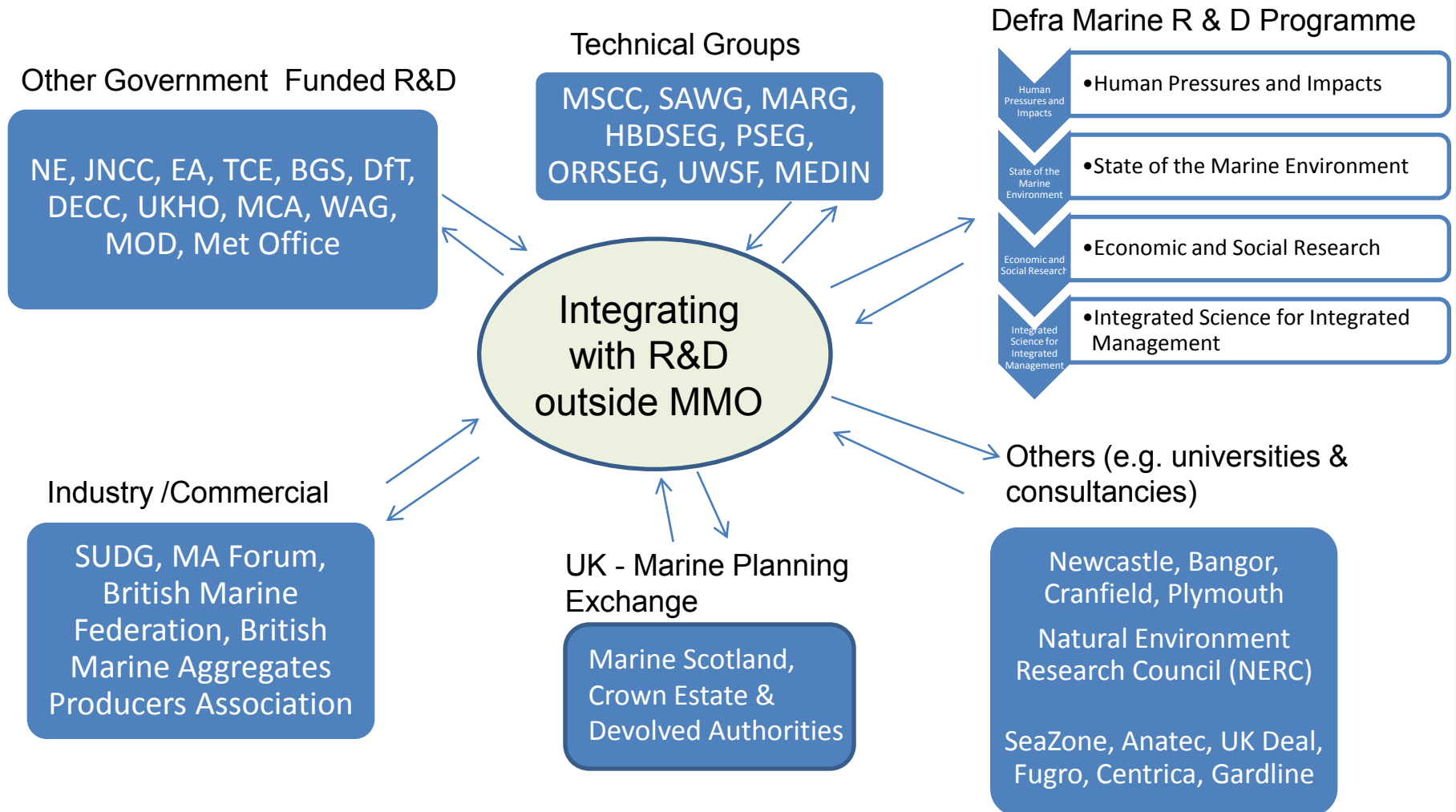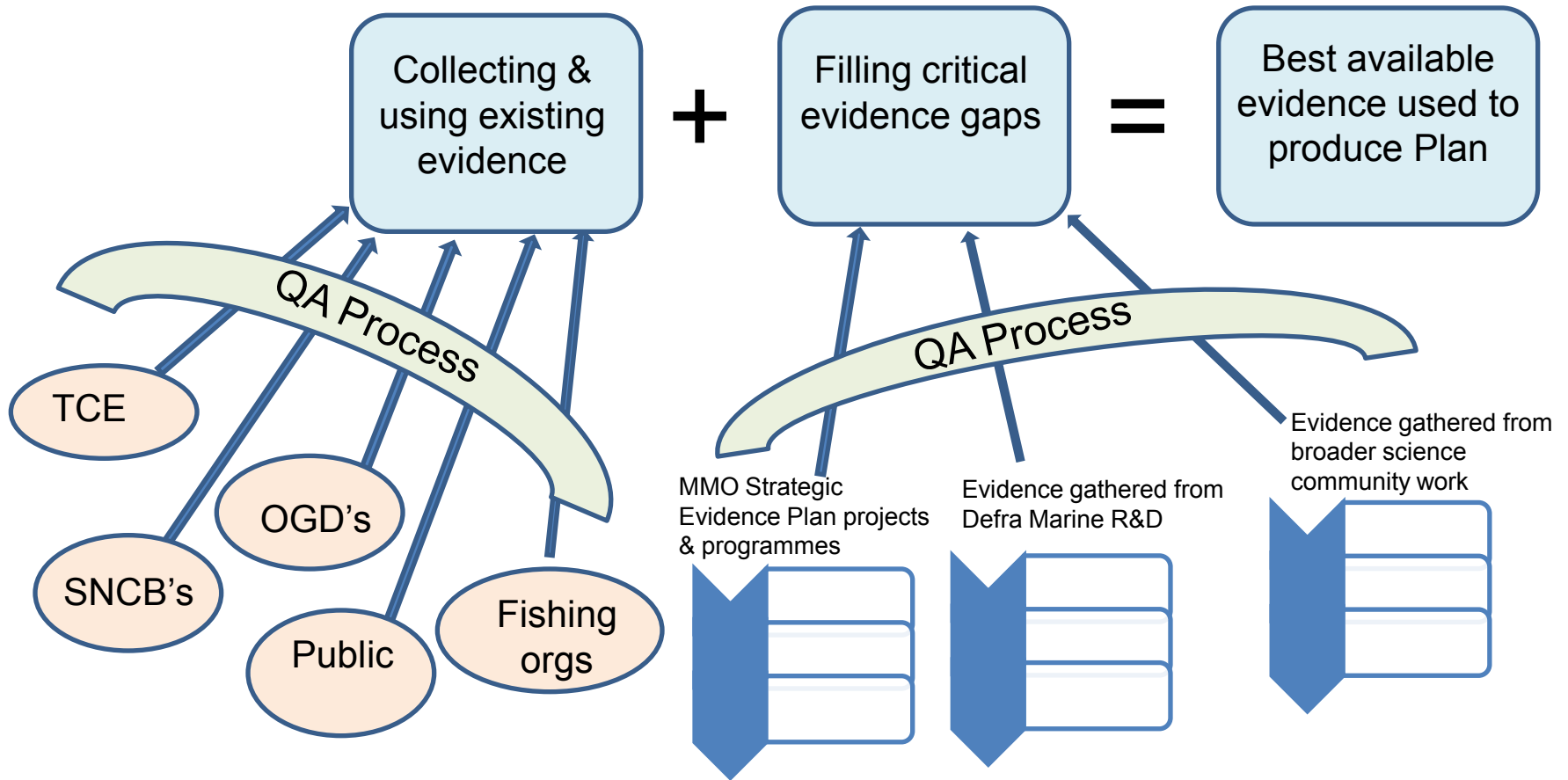
Stages of the planning process

Towards an Integrated Marine Evidence Base

Encouraging integration of research efforts to maximise resources
Enhancing coherence, consistency and direction of research
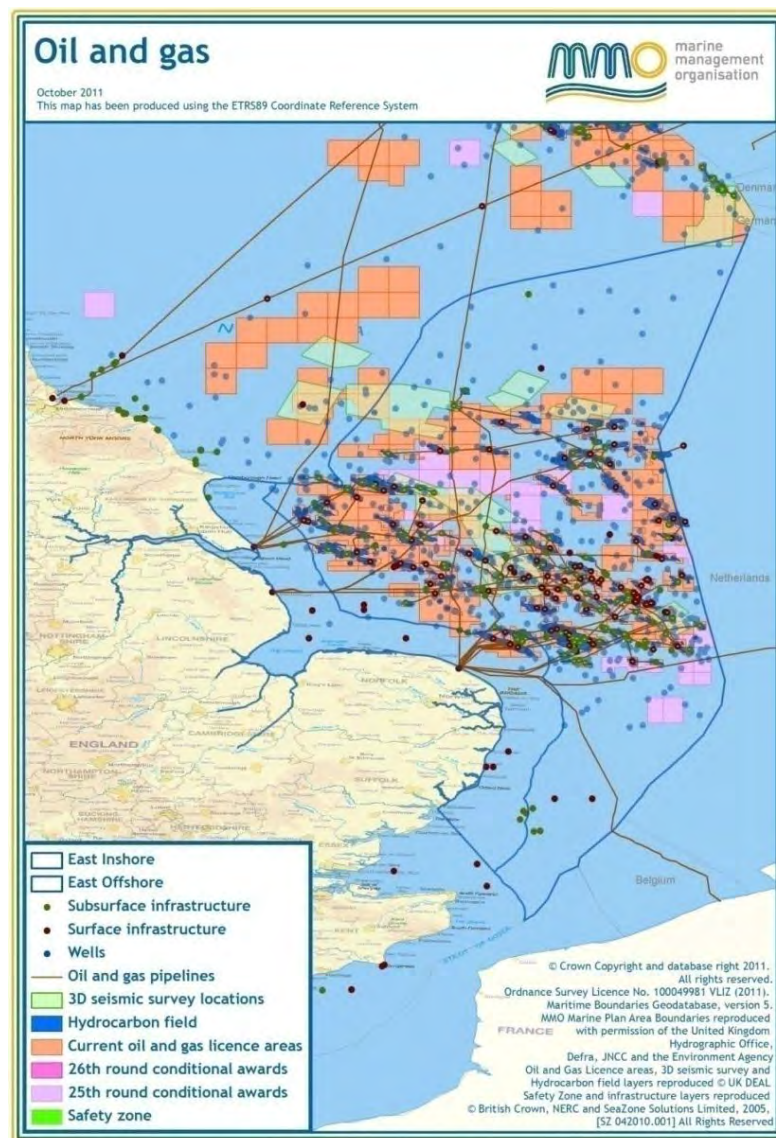Providing clarity on the focus for planned and future research

Technical Groups

MSCC, SAWG, MARG, HBDSEG, PSEG, ORRSEG, UWSF, MEDIN

Defra Marine R & D Programme

- Human Pressures and Impacts
- State of the Marine Environment
- Economic and Social Research
- Integrated Science for Integrated Management

Other Government Funded R&D

NE, JNCC, EA, TCE, BGS, DfT, DECC, UKHO, MCA, WAG, MOD, Met Office

Integrating with R&D outside MMO

Industry /Commercial

SUDG, MA Forum, British Marine Federation, British Marine Aggregates Producers Association

UK - Marine Planning Exchange

Marine Scotland, Crown Estate & Devolved Authorities

Others (e.g. universities & consultancies)

Newcastle, Bangor, Cranfield, Plymouth

Natural Environment Research Council (NERC)

SeaZone, Anatec, UK Deal, Fugro, Centrica, Gardline

Enhancing the Evidence Base (Marine Planning)

Evidence Approach for Marine Planning

- **Data management process**

- **Quality assuring evidence process for marine planning**

- **Addressing poor quality data or products**
  - Seabed habitat map for EoE
  - Targeted commissions, e.g. socio-economics, recreational activity, shipping density & fishing activity
  - Data mining from industry

Oil and gas

October 2011
This map has been produced using the ETRS89 Coordinate Reference System

marine management organisation

East Inshore
East Offshore
• Subsurface infrastructure
• Surface infrastructure
• Wells
— Oil and gas pipelines
3D seismic survey locations
Hydrocarbon field
Current oil and gas licence areas
26th round conditional awards
25th round conditional awards
Safety zone

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Oil and Gas Licence areas, 3D seismic survey and
Hydrocarbon field layers reproduced © UK DEAL
Safety Zone and infrastructure layers reproduced
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[SZ 042010.001] All Rights Reserved

Ensuring MMO's Quality of Evidence

- **MMO Policy Framework**
  - Published policy on Evidence Quality Assurance
  - Published policy on Data Management

- **Evidence QA Processes**
  - Published process on intra/internet
  - Embedding process and standards into staff culture
  - Developing a corporate QMS system to ensure audit trails

- **Wider engagement**
  - Evidence suppliers to gain levels of assurance of their processes
  - Defra cross-network to align evidence QA processes
  - Embedding the GCSA's Guidelines on the use of evidence

Quality Assuring Evidence & Data

- Three processes in MMO's **Quality Assurance Systems**:

  - Quality assuring MMO's decision-making process (licensing);
  - Quality assurance of evidence (all functions); and
  - Quality Management System (towards ISO accreditation)

- **Ensuring audit trails** of reviews and commissions of evidence/science

- **Peer reviewing all critical work**, internally and externally

- **Raising the bar on evidence standards** across the MMO and with our suppliers

How important is high quality evidence?

Exclusions

Planning
Prescription
& Decisions

Change over time?

Signposting

Planning
Signals & Guidance

Evidence & Analysis

Increase over time
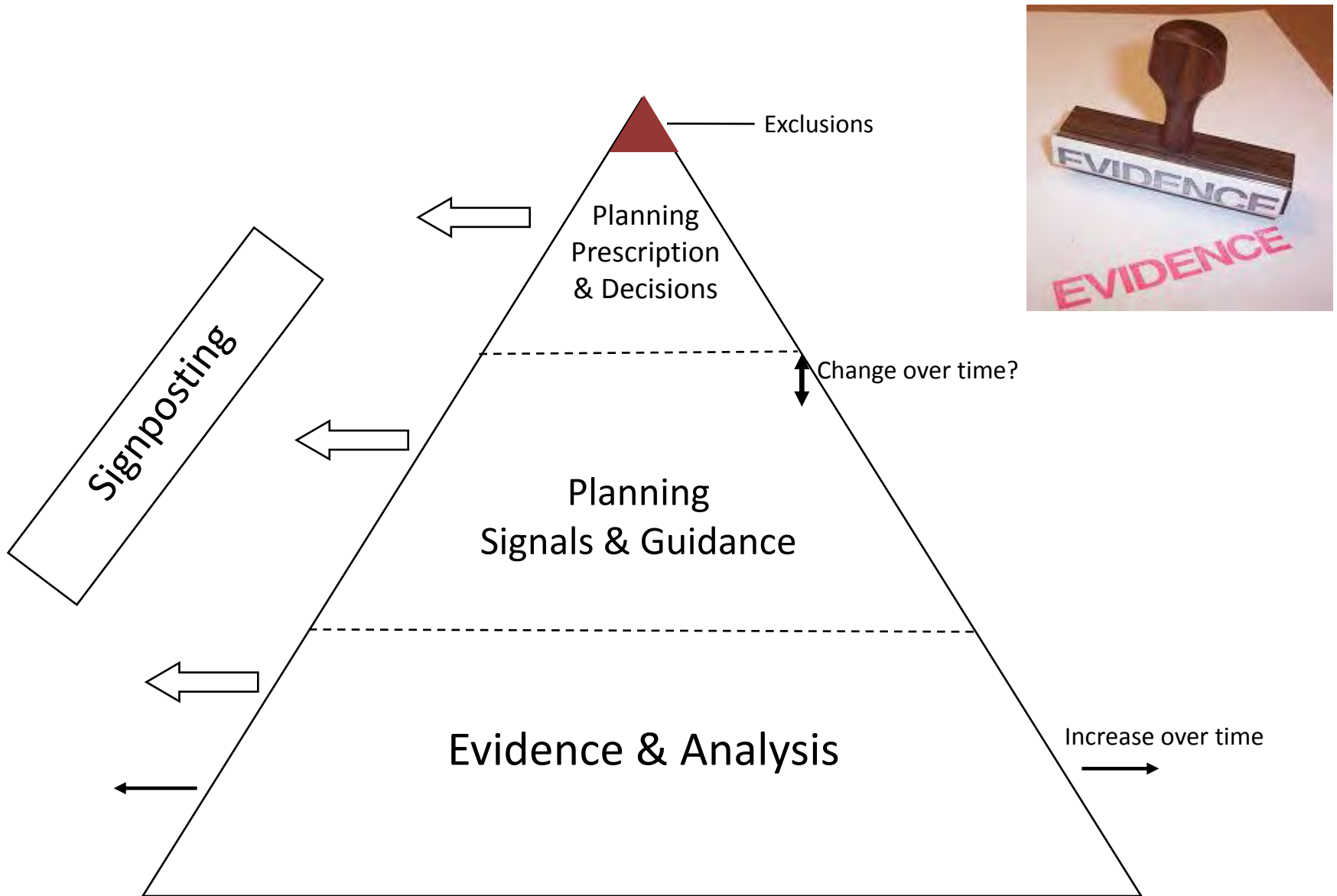
Building Confidence in MMO's Data & Evidence

- Recognising the limitations of our evidence will allow us to assign a **level of confidence** to it and focus on its best use

- These levels can be **low, medium or high**, depending on the amount of information we have gathered about such evidence

- **Filling knowledge gaps** in those areas critical to our work but where we know that the evidence needs strengthening

http://www.marinemanagement.org.uk/evidence/index.htm
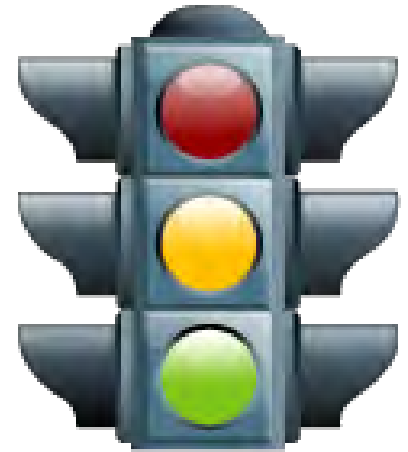
MMO Research Priorities for 2011 – 2015 (SEP)

Evidence / Data Programmes	Selected Examples
Co-location	Potential for co-location
Cumulative effects	Cumulative effects from OWF
Fisheries management	Trends and distribution of fisheries resources
Socio-economics	Recreational activities, Shipping Activity, Impact Assessment for East of England Data Review,
Seabed habitat mapping	Enhanced seabed habitat map for East plan areas
Marine Protected Area management	Seagrass ecology Eco-moorings in Lyme Bay
Ecosystem services	Tools and methods (part of socio-economics)
Data mining	Fast track licences Legacy data for licensing

http://www.marinemanagement.org.uk/about/documents/strategic_evidence_plan.pdf

Centralised Data sharing - within the UK

- Aims to move from this: To this:
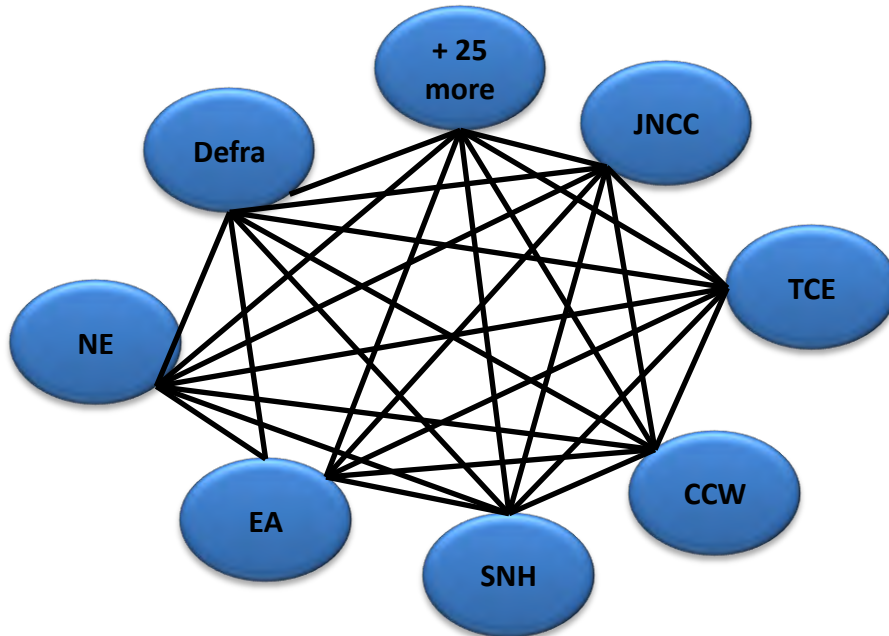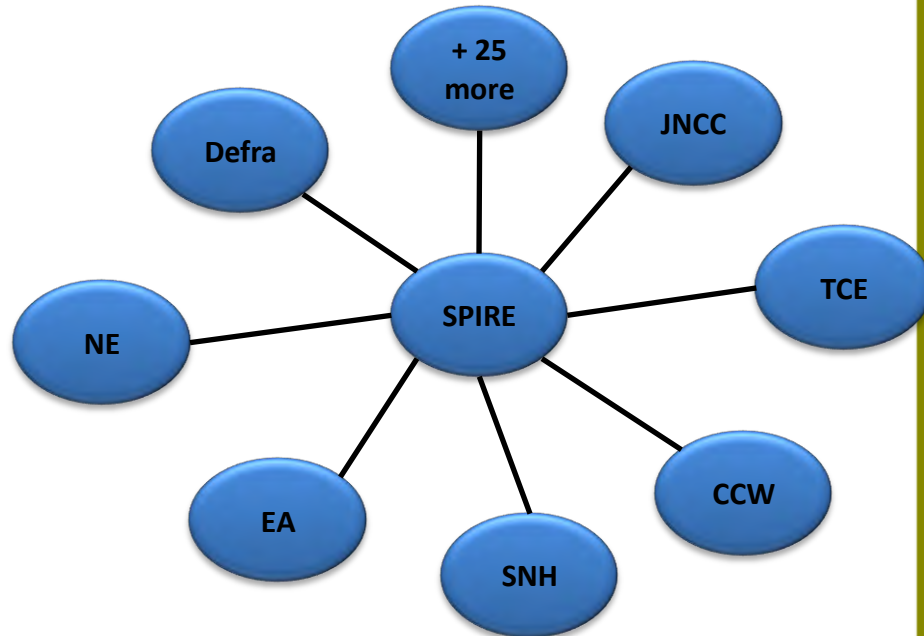
- Goal - data to be provided once via the hub and then to other authorised users under terms and conditions agreed by all participants

Making Data Available

Metadata

http://www.marinemanagement.org.uk/evidence/mdr.htm

Intranet webGIS tool

External Marine Planning Consultation

- Workshops, web portal, analysis of policy, extensive stakeholder consultation and commissioning of evidence to fill gaps.

- http://planningportal.marinemanagement.org.uk

Challenges we face

- Marine data ownership is complex in the UK
- Not all data is owned by public authorities
- Data quality is not uniform
- There is no single repository for marine spatial data 'products'
- Data protection restricts the sharing of personal data
- Socio-economic data is disparate
- Data maintenance and strengthening is time consuming and costly
- Agreement on trans-boundary data sharing is still in early stages

Progress and Opportunities

- We work with the UK's Marine Environmental Data Information Network (MEDIN) to:
    - maintain a UK marine metadata standard (both ISO and INSPIRE compliant)
    - develop a UK database of UK marine metadata
    - archive raw data and where permitted provide direct access
    - develop data guidelines which ensure standardised data recording and analysis.

    http://www.oceannet.org/

- We now publish 40 MMO GIS data layers to INSPIRE standards :

    http://www.geostore.com/environment-agency/

- We are involved in a number of trans-boundary projects (e.g. M.P.E.) and are keen to reach agreement with bordering nations on data sharing

Thank you

Future updates at:

www.marinemanagement.org.uk/marineplanning &

www.marinemanagement.org.uk/evidence

Contact us

Email: duncan.hume@marinemanagement.org.uk

Telephone: 0191 376 2577