Finding and Using Data -
MEDIN Latest Developments and Vision

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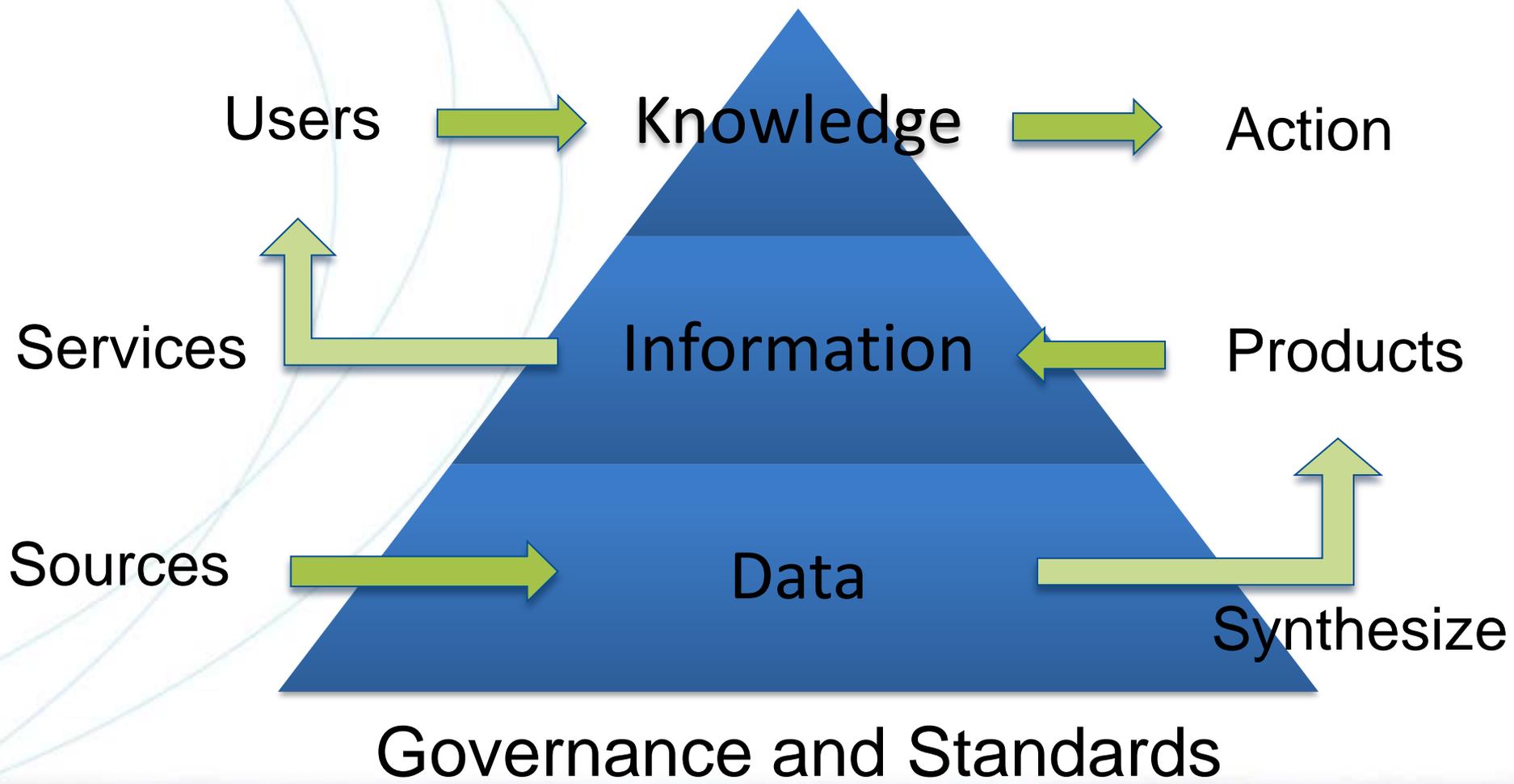Invited Expert / Co-Founder International Hydrographic Organisation MSDI WG
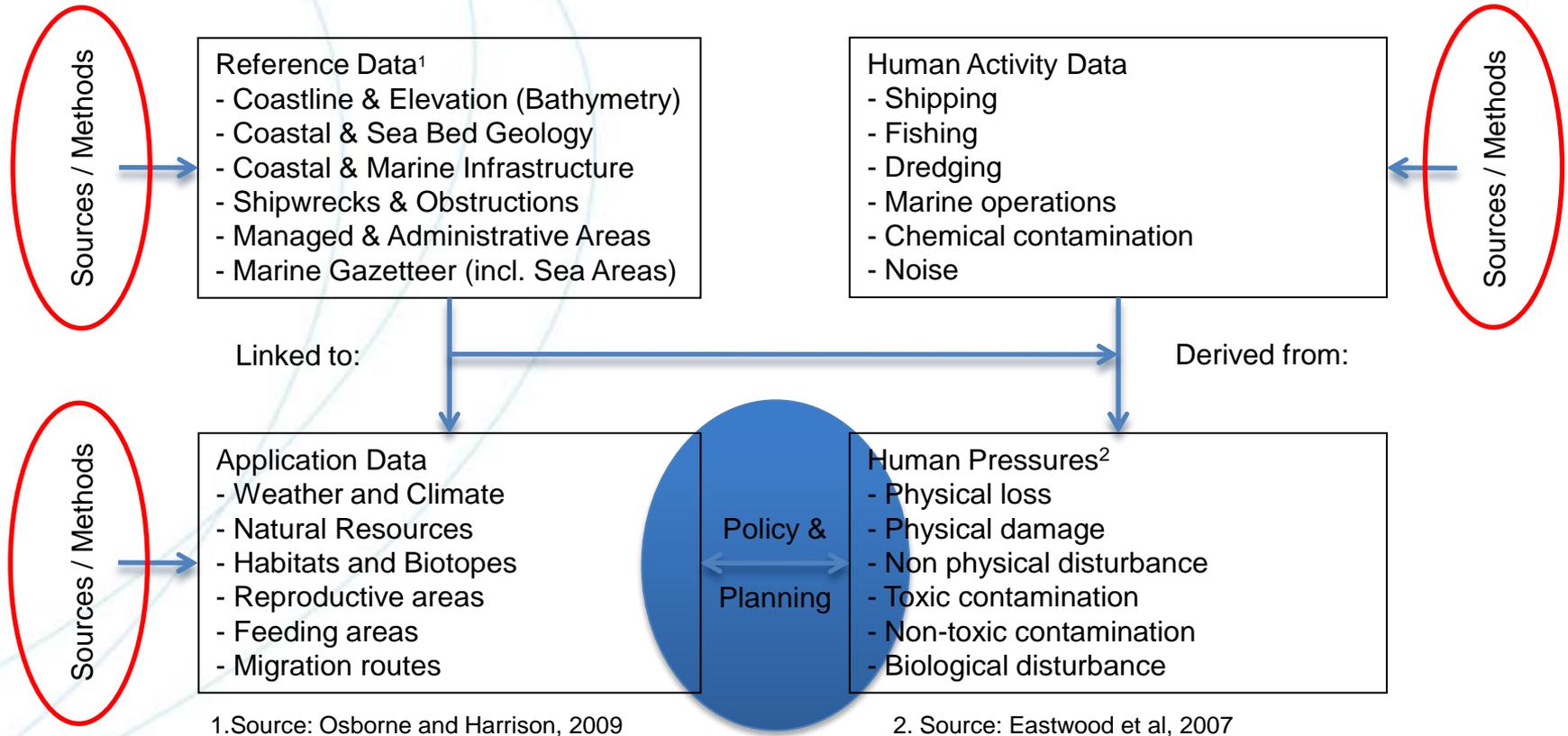
Member NERC MAREMAP and EC VALMER Steering Groups

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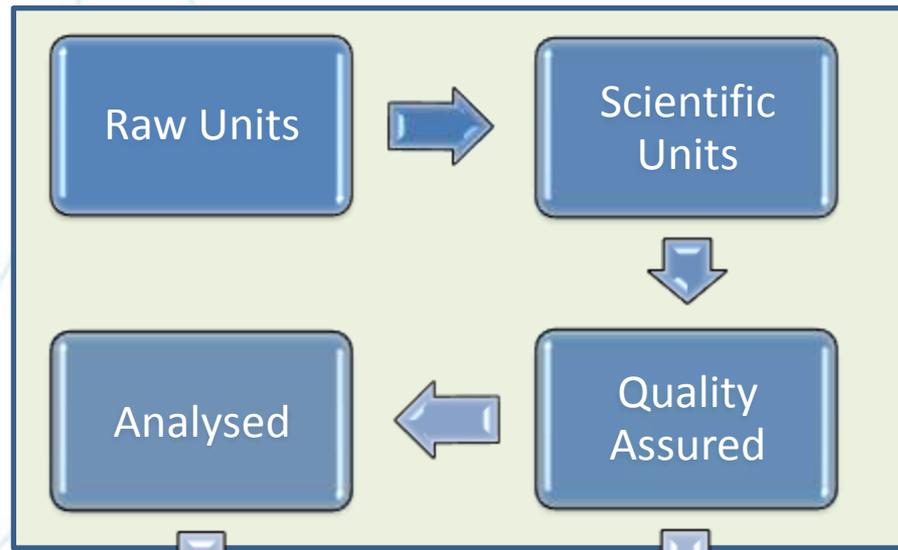
Data - Information - Knowledge

Users → Knowledge → Action

Services → Information ← Products

Sources → Data → Synthesize

Governance and Standards

Reference Model – Linked Data

Sources / Methods

Reference Data[1]
- Coastline & Elevation (Bathymetry)
- Coastal & Sea Bed Geology
- Coastal & Marine Infrastructure
- Shipwrecks & Obstructions
- Managed & Administrative Areas
- Marine Gazetteer (incl. Sea Areas)

Human Activity Data
- Shipping
- Fishing
- Dredging
- Marine operations
- Chemical contamination
- Noise

Sources / Methods

Linked to:

Derived from:

Sources / Methods

Application Data
- Weather and Climate
- Natural Resources
- Habitats and Biotopes
- Reproductive areas
- Feeding areas
- Migration routes

Policy & Planning

Human Pressures[2]
- Physical loss
- Physical damage
- Non physical disturbance
- Toxic contamination
- Non-toxic contamination
- Biological disturbance

1.Source: Osborne and Harrison, 2009

2. Source: Eastwood et al, 2007

The Data Value Chain - MEDIN's Role?



Enabling consistent and efficient data 'flow':

- Standards for acquisition and analysis ✓

- Controlled vocabularies ✓

- Metadata profile and tools ✓

- Dataset exchange protocols ✓

- Guidelines for quality control ✓
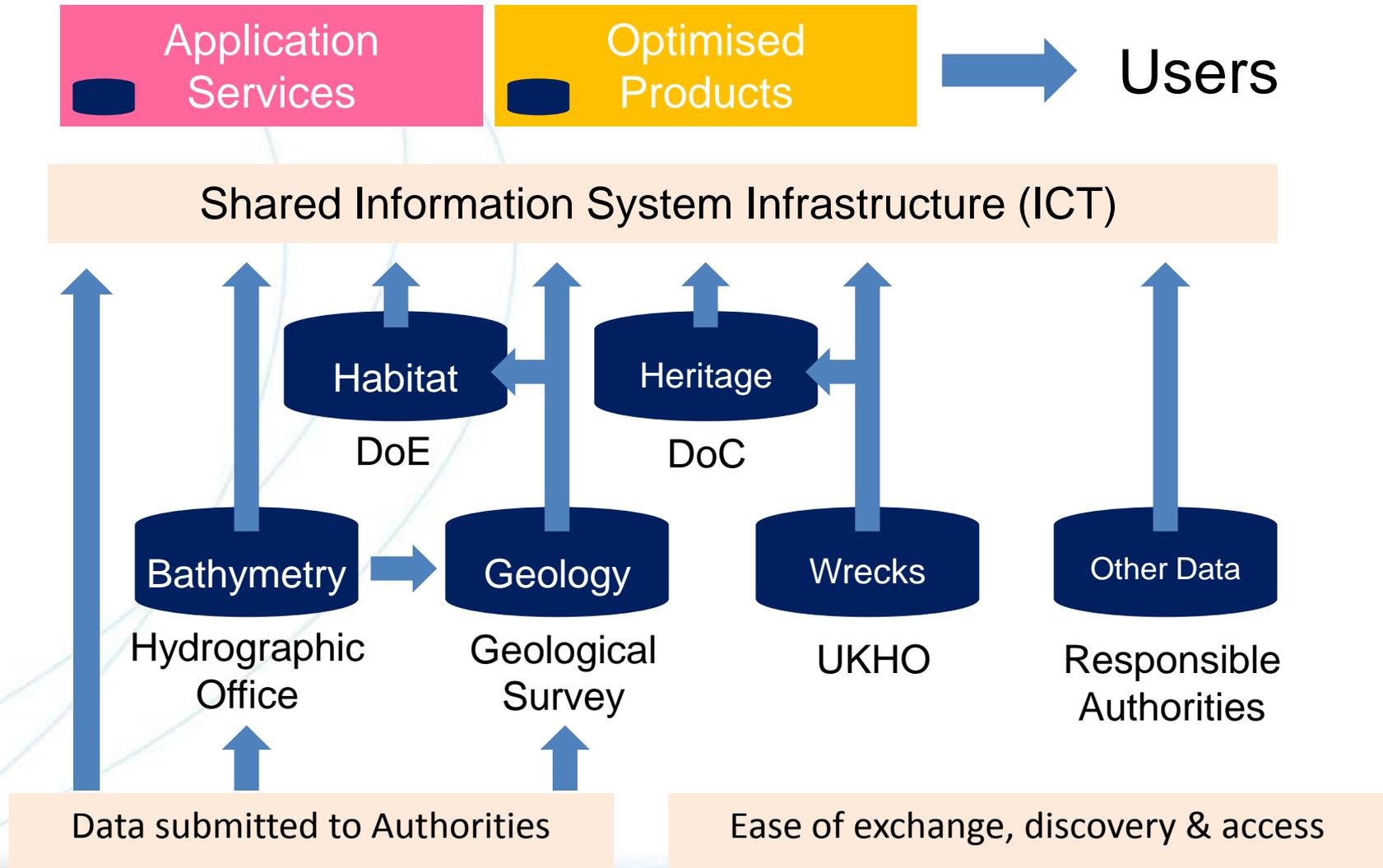
- Thematic Data Archive Centres (DACs) ✓
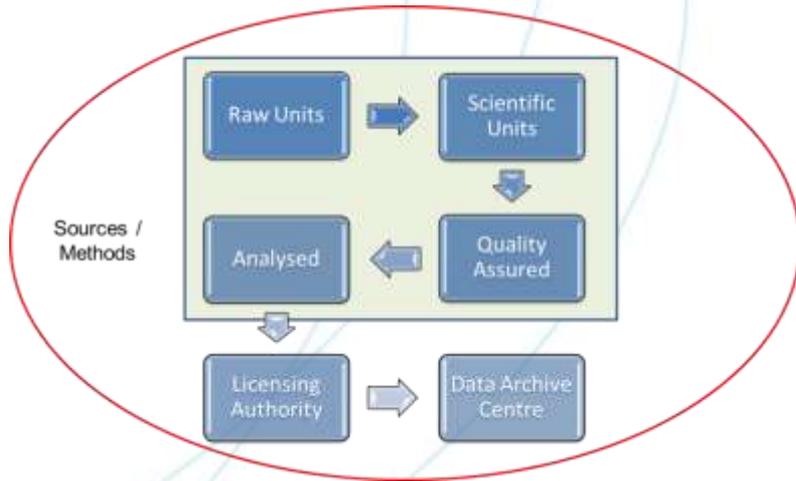
Data to Information - MEDIN's Role?

What about outputs?

- Discovery ✓

- Access to value added datasets (via DACs) ✓

- User created products **?**

- Predefined products **?**

- Product and/or service mix **?**

- Access to wider datasets e.g. socio economic data **?**
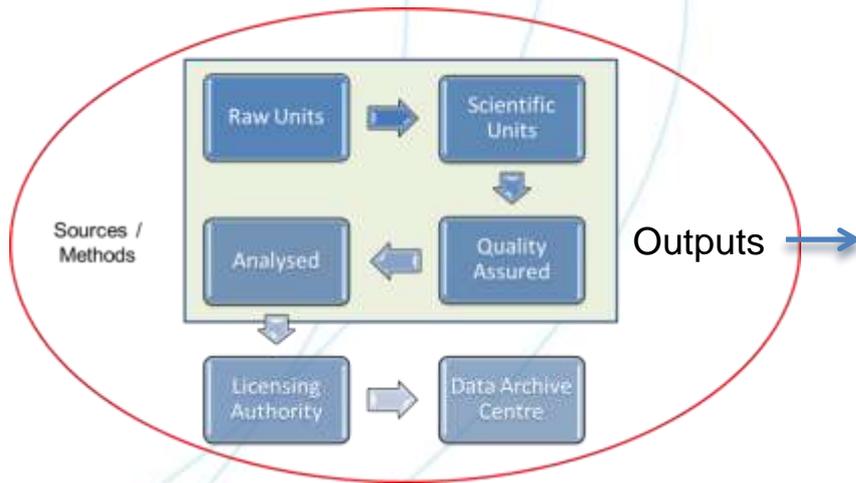
MEDIN's Vision – A Step too Far?

Products and Services

The MEDIN Review:

- Recommended a stronger focus on datasets, services and products [which would be] of substantial benefit to users

Marine Science Coordinating Committee:

- MEDIN to consider the demand for products created after analysing data in its future business plan

- MEDIN to involve itself in the creation and maintenance of "usable products"

Issues

- Data holders ability to make their data available to users beyond their core 'market'

- Lack of fitness of data and the need for it to be improved or strengthened to meet a wider need e.g. its OK for charting

- Availability of resources contrasted with obligations under INSPIRE and Government 'transparency' and data sharing agenda

- Predefined versus user defined. Latter encourages innovation but could lead to duplication of effort or inconsistency essential for planning and reporting

- No over arching strategic drivers – marine science strategy highlights importance but avoids specific direction

Status

- The MEDIN portal is improving …

- Datasets are easier to discover and access

- UKDMOS web service to view monitoring sites (for example) directly in GIS

- Portal catalogue is making the discovery and access to reference datasets easier

- Action Plan is facilitating data strengthening and fitness of purpose for wider use

MEDIN - Where next? E.g.

- Acquisition standards and exchange protocols
- Quality Assurance
- Data rescue
- Ease of discovery and access (minimum clicks)
- Reference dataset development and access
- Predefined datasets for common applications
- Help users mine, link and tailor data to create their own products and services

Have your say in the breakout session later

Thank You!

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All comments and ideas welcome