

# MARINE RESEARCH INFRASTRUCTURES AS BIG DATA PRODUCERS

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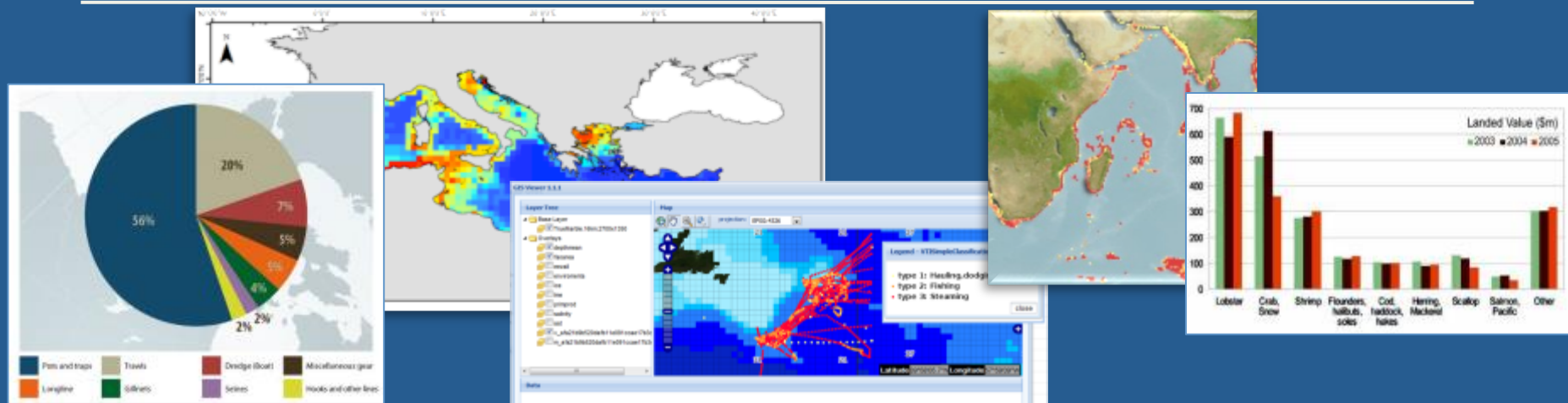
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*Environment (Focus on Marine Research  
Infrastructures) Parallel Session*

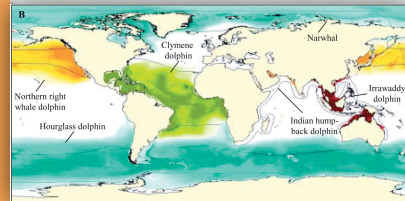
Defining appropriate conservation and policy measures for the sustainable exploitation of natural resources in the marine environment requires

**comprehensive, multi-domain and good quality knowledge on the status of biodiversity and ecosystems and on marine resources exploitation and management**



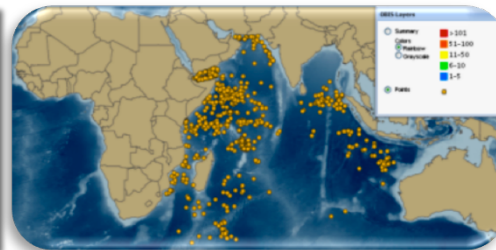
# Few examples

Monitoring ecosystem health and trends



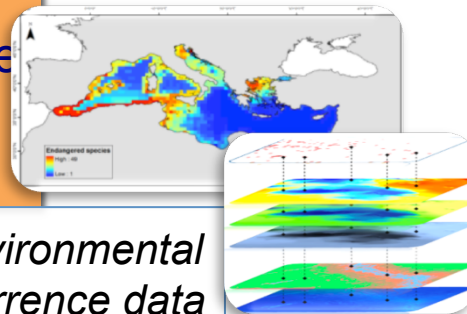
*Species predictive maps*

Reducing ecosystem impacts of Deep sea fishing on fragile ecosystems



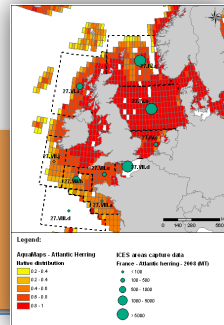
*Maps of sensitive or fragile habitats*

Identification of Sensitive or fragile habitats



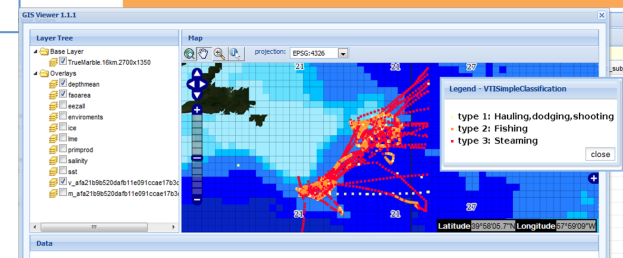
*Biodiversity models and Environmental Enrichment of species occurrence data*

Fisheries management and policy making



*VMS and e-LogBook data*

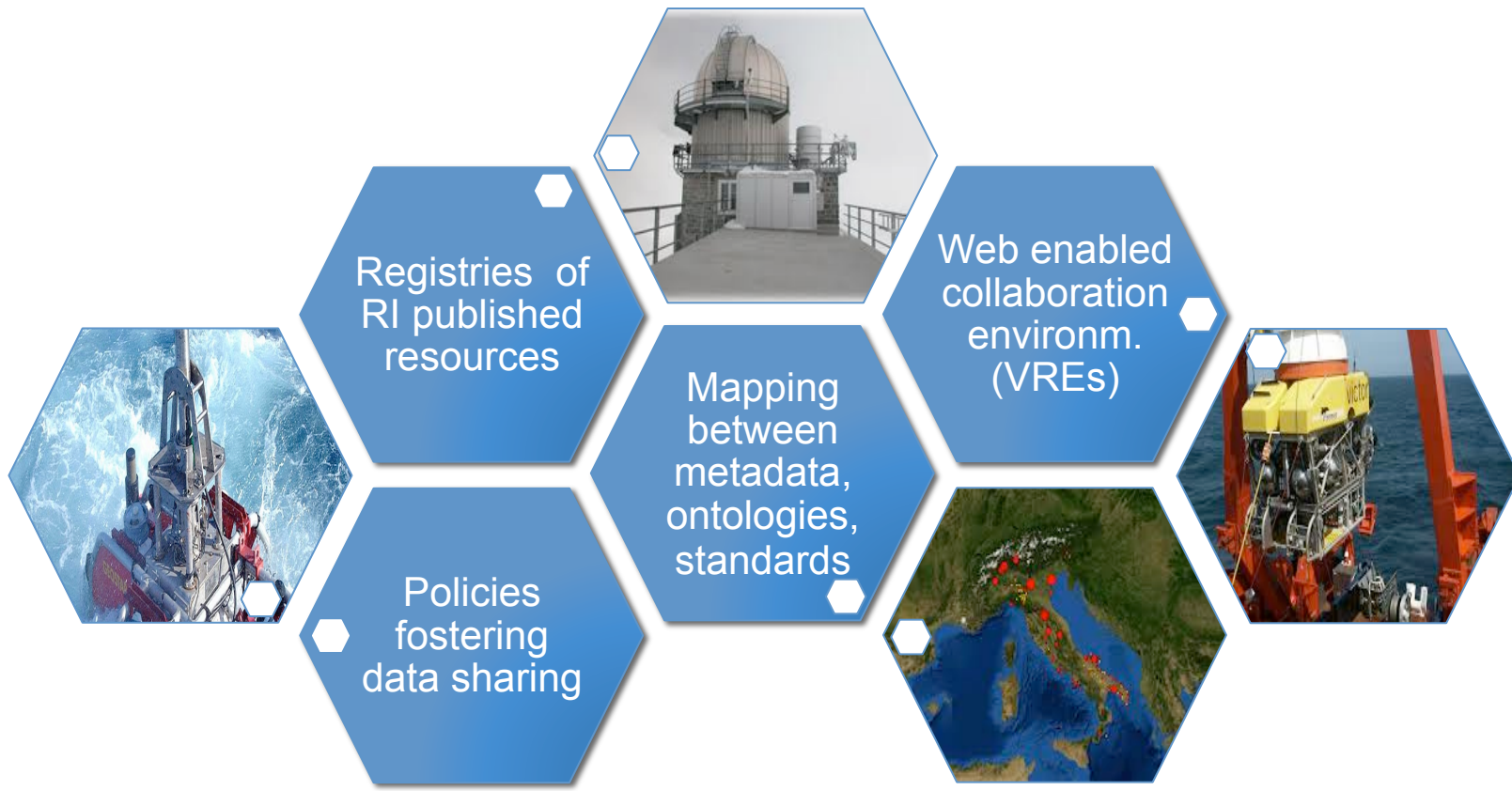
Reducing ecosystem impacts of Fishing on by-catch species



*Scientific data collected on fishing vessels*

# 1. Operating across RIs

Facilitate data access and multidisciplinary scientific collaboration across multiple international Research Infrastructures



# From data to knowledge

Data acquisition and recording



Description and aggregation



Selection, cleaning, integration and  
generation of working datasets



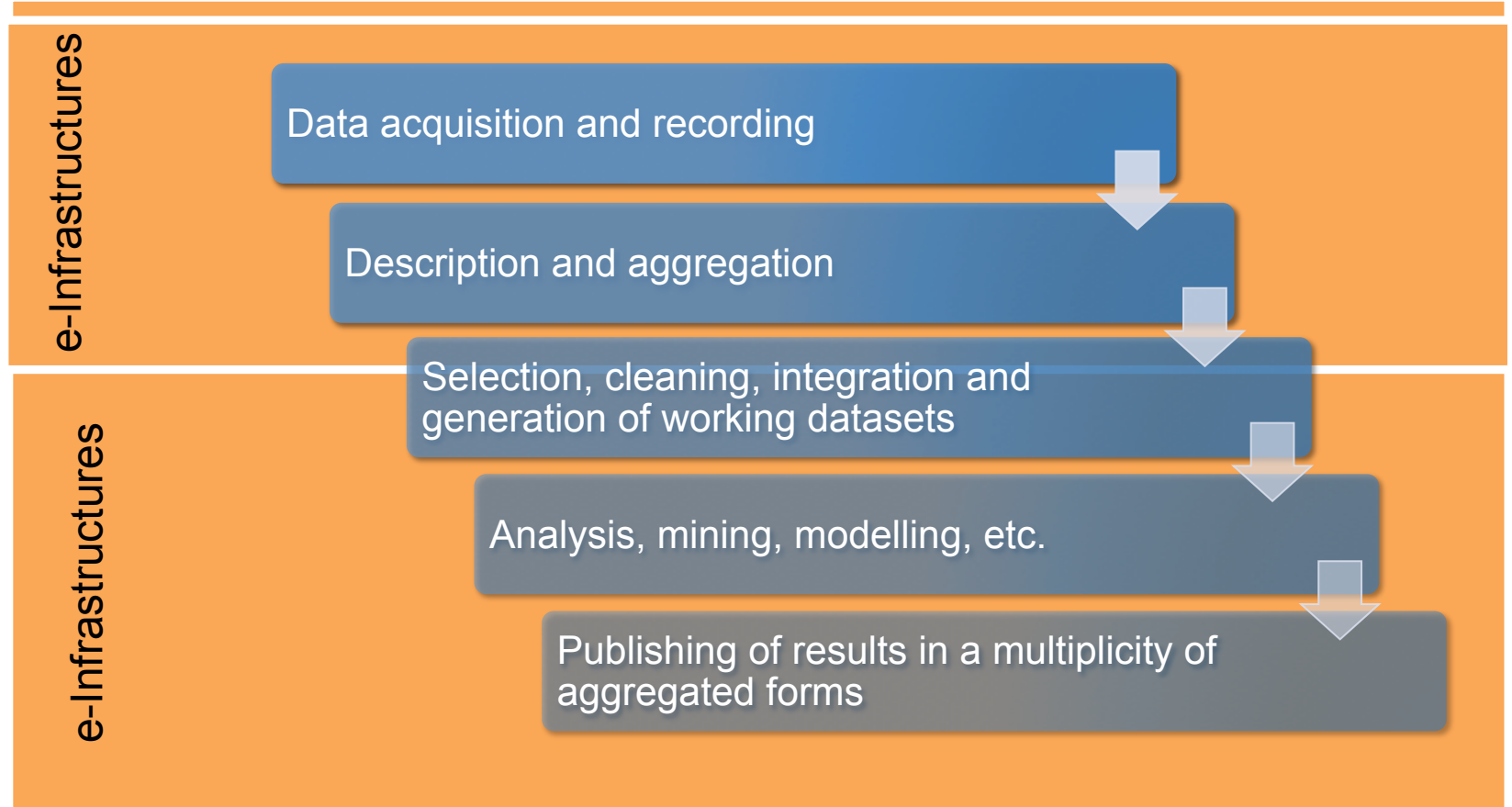
Analysis, mining, modelling, etc.



Publishing of results in a multiplicity  
of aggregated forms

## 2. Exploiting (data) e-Infrastructure facilities

On-demand provision of higher level e-services tailored to the needs and skill of the researchers



### 3. Contributing to Open Data fostered innovation

Increase awareness and facilitate use of marine RIs  
open data to companies to enable the delivery of  
new products and services

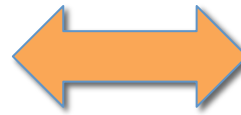


- Clear access and usage policies
- Facilitated retrieval and access
- Standard data and metadata formats
- ....



# Cross-fertilization between specific and generic solutions

Inter-RI



RESEARCH DATA ALLIANCE



GROUP ON  
EARTH OBSERVATIONS



ICSU

WORLD DATA SYSTEM

Intra-thematic RIs



Intra-multidisciplinary  
RIs

