

**Multi-use of infrastructure for monitoring:
experiences from the JPI Oceans pilot action**
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E00S Conference

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<http://www.jpi-oceans.eu/>

JPI Oceans – An intergovernmental process

20 member countries

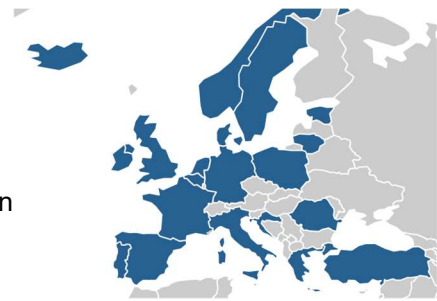
Established in 2011 by decision of Council of European Union, implemented by its member countries

Management Board of national ministries and agencies responsible for **marine and maritime research funding**, incl. European Commission (DG RTD)

International Partners invited to participate in actions on case-by-case basis

Mission:

Providing a strategic platform for long-term alignment and cooperation in marine and maritime research and innovation funding to increase impact of investments.



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Joint Actions

Joint Actions are initiated to implement the Strategic Research and innovation Agenda.

Actions are proposed by a lead country or countries – at least 4 member countries need to be involved for it to be considered as a JPI Oceans action

The size and scope of each action varies depending on the research needs,
The methods/tools used depend on the objective to be achieved.

- Tools include:
 - National research funding (alignment/joint calls)
 - Institutional investments (in kind)
 - Sharing Existing infrastructure/new investments
 - Drawing on H2020 tools and activities supported by Structural funds
 - Research alliances/hubs
 - Capacity building
 - Etc...

Exchanging information, best practices, methodologies and guidelines;

RESOURCES

JPI Oceans and its supporting projects have developed a number of resources to facilitate joint programming.



Developing appropriate science / policy interfaces



Promoting interdisciplinary approaches & stimulating exchanges across the marine and maritime sectors



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Background

- Disparate and costly monitoring programmes
- Infrastructure (vessels) with efficiency potential
- Test an approach for cost savings and better efficiency through:
 - Simultaneously collect data for **EUs Common Fishery Policy** (monitoring of fish stocks), and
 - the **Marine Strategic Framework Directive** (monitoring of ecological/environmental status)

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JPI Oceans' multiuse of infrastructure

- Initiated in 2013
- Led by NL, seven participating countries
- Assumption of available funding by involved partners
- Link to DG ENV's project on a framework for indicators for MSFD
- Key idea: Use an existing monitoring programme for expansion to cover additional indicators in a flexible and cost-efficient way
- Not very successful, and why?

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Aims

- Increasing the value of each Euro spent nationally on marine infrastructure and research by smart coordination and collaboration;
- Jointly collecting data required by European and national legal obligations;
- Jointly collecting data for research purposes
- Increasing experience with joint data collection.

- In short: "Sharing" infrastructure through multiuse

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Implementation

- Each Member State (in JPI) involved agreed to lead one additional monitoring topic
- Cooperation with ICES (International Council for the Exploration of the Sea)
- Implementation via the IBTS (International Bottom Trawl Survey for EUs Fishery Policy)
 - Long standing time series
- IBTS revised early proposal

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Implementation continued

- Adding indicators for MSFD:
 - Fish and shellfish: stomach sampling for foodweb information, additional biological data
 - Physical and chemical oceanography: continuous and station sampling of e.g. conductivity, temperature, depth, chlorophyll, oxygen, nutrients, turbidity etc.
 - Biological oceanography: continuous phytoplankton sampling, station zooplankton samples
 - Invertebrates: record all species caught during fishery survey; epifauna video, pelagic invertebrates
 - Megafauna: birds, mammals during fish larvae sampling
 - Habitat description: camera, side scan sonar, multibeam
 - Pollution: plastic and other litter from bottom trawls, floating litter
 - Environmental conditions: weather, sea state
- IBTS could remain with its mandate and take up additional tasks through international organization with «lead Member State for each indicator»
- In sum: A complex survey

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Many challenges

- IBTSWG sceptical, did not know much about JPI Oceans
- No additional funding was available: Funders assumed scientists could use existing funds
- The DG ENV framework project not in time, indicators not fit for field work
- Complex and time-consuming work to develop indicators, measurement models, fact sheets, distribution of labour, etc
- Several institutional and management gaps and disconnects

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Continued

- Additional issues
 - Scientists often tired of requests for added work with no funding
 - Incentives!
 - More contact should have been with ICES WGISUR (Working Group on Integrating Surveys for the Ecosystem Approach)
 - Fleet operators to be brought in (ships are uneven in size and equipment, diverse potential across participants)
 - Underdeveloped coordination and readiness among national ministries/agencies

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Deep Sea Mining action as contrast

- Another pilot action by JPI Oceans
- Also focused on «sharing» infrastructure
- RV SONNE, a modern, large research vessel offered by Germany
- One international group of researchers was organised to conduct an integrated project
- On ecological effects of deep sea mining
- Driven by International Seabed Authority (developing mining code for international waters)
- The action considered as a great success

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Comparing with Deep Sea Mining

Infrastructure

	Distributed	Integrated
Integrated		Deep Sea Mining
Diverse	Multi-use of infrastructure	

Activities



Conclusions

- Great idea and great potential
- Parameters for equipment, cost savings and efficiencies not visible, and were not drivers
- Many loose ends and disconnected actors
- Different steering and governance needed for **systemic change**
 - Distributed infrastructure and activities need **strong policy drive** and hands on management
 - Transformative management for infrastructural change
 - Need to revamp national platforms for coordinated/concerted action/funding
- New effort possible?
 - But with better focus on cost issues, infrastructure (including ship operators) and policy drive

A large, stylized logo for JPI OCEANS. "JPI" is in a serif font, and "OCEANS" is in a bold, sans-serif font with a wave graphic under the "S".

THANK YOU
For your attention

Website: www.jpi-oceans.eu

Twitter: [@jpioceans](https://twitter.com/jpioceans)