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Managing fisheries in the context of an integrated marine policy: the importance of spatial issues

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Context

Fisheries management is now impacted by a variety of policies (MSP, MSFD, …)

1. Fishing impacts fish stocks and other ecosystem compartments, which have now also management objectives

2. Fishing has conflicting interests with other sectors, in terms of space or use of resources

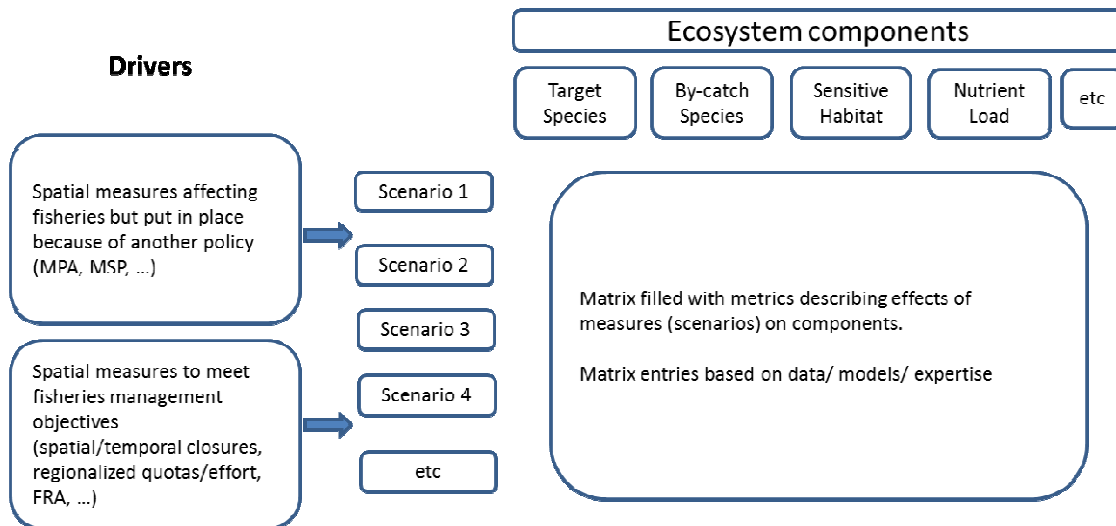3. Many regulations now affect directly or indirectly fishing activity.

'Integrated' Fisheries management has multiple objectives, requires trade-offs, is place-based and implies other sectorial activities

Spatial management is perceived as a way forward:

1. An ecosystem approach is place-based and calls for a regionalisation of management strategies

2. Spatial management has the potential for being multi-purpose

Challenge

Design and evaluate spatial management strategies that address trade-offs between multiple objectives and sectors

Research needs

1. Management Strategy Evaluation (MSE) for multi-objectives, multi-sectors, spatial management

2. Knowledge on and Evaluation of functional habitats

3. Spatially-explicit end-to-end models with appropriate complexity

Novelty

MSE for Ocean Management in a spatially-explicit context

Trade-offs (not optimality) between management objectives, sectors, spatial scales

Habitats : Understand their ecological functionalities (not just habitat mapping)

    How these contribute to diversity and productivity of ecosystem components

Models : Adapt model complexity to operationalize models (end-to-end spatially-explicit)

    Realistic movement models

Gaps/ Bottlenecks : spatial issues

Habitat functionalities and scaling to fish populations; Fishing impacts on functionalities

Movement models for the fish and fishing fleets

Acknowledgements