

# Spatial modelling of multiple pressures to support the implementation of the Marine Strategy Framework Directive and Marine Spatial Planning

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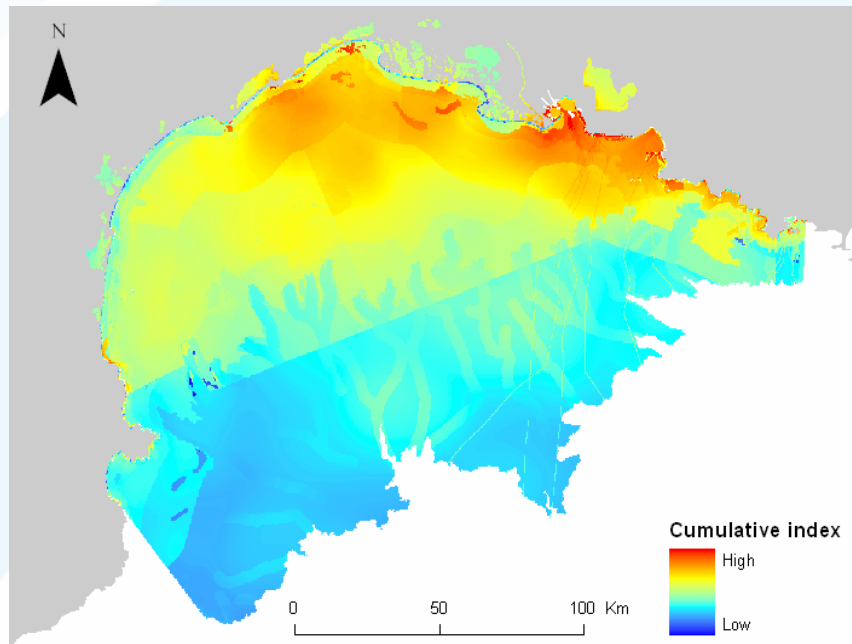
## ONE DRIVER, MULTIPLE PRESSURES: MARITIME TRAFFIC

- Maritime transport is related to most of the descriptors targeted by the MSFD
- We use data of automated identification systems (AIS) to generate maps of multiple pressures
- We developed a system to store, manage, analyse and visualize AIS data based on open-source components (PostGIS, R).

Mapas finales del trabajo de cumulative: noise, passenger, aliens, density

# MULTIPLE DRIVERS, ONE INDEX: CUMULATIVE PRESSURE MAPPING

- The acquisition of a holistic approach is essential for the management of marine areas
- We conducted a high-resolution cumulative pressure analysis based on:
  - 35 pressures
  - 16 ecosystem types
  - Vulnerability assessment based on expert survey



## Implications for the MSFD and MSP

- Data and results can be incorporated into Decision Support Systems (DSS)
- Support the MSFD (Initial assessment, monitoring programs, mitigation measures)
- Overcome issues of trans-boundary areas