

## **PADDLE**

### Planning in **A liquiD** world with tropical **L StakEs**: solutions from an EU-Africa-Brazil perspective

PADDLE is a RISE type (Research and Innovation Staff Exchange Scheme) European project Marie Skłodowska-Curie focusing on Marine Spatial Planning (MSP). "Marine spatial planning (MSP) currently offers an increasing number of opportunities to combine different uses of marine resources in a single area" (Craig, 2012, Koehn et al, 2013, Ehler, 2014). To achieve this objective of optimization, governance and management institutions rely on spatially explicit decision support tools (DST) that (i) incorporate data describing ecological, economic and social systems, (ii) transparently assess management alternatives and compromises, (iii) involve different actors intervening in marine ecosystems, and (iv) assess progress towards management and governance objectives.

After initial applications in northern countries, MSP is now spreading to tropical environments as part of a wider process whose aim is to organize the exploitation of marine environments and to design the necessary new forms of governance. MSP targets the joint organization of activities such as seabed mining and oil extraction, fishing, tourism, environmental protection, and the development of renewable energies. However, MSP could also open the way for ocean grabbing that is «the dispossession or appropriation of use, control or access to ocean space or resources from prior resource users, rights holders or inhabitants» (Bennett et al., 2015).

The main study area of the Paddle project will be the State of Pernambuco in Brazil, which is one of the most densely populated coastal regions, benefiting from a wide variety of interconnected coastal ecosystems (mangroves, coral reefs, sandy beaches, rocky coasts and estuaries) and hosting 34 fishing communities (12,000 fishermen). There are more and more conflicts of use, with the development of port, tourism or extractive activities, for example. We are therefore dealing with a case study in a tropical environment where the issues of governance, management of human activities and conservation are particularly important.

PADDLE will be organized over 4 work packages:

**Table : Paddle project organization**

| WP  | Work Package Title                                 | Activity Type  | Start Month | End month |
|---|--|--|-------------|-----------|
| 1    | Coordination, training and dissemination           | Coordination, training and dissemination                       | 1           | 48        |
| 2    | Key ecosystem dynamics for MSP                     | Research, data collection and analysis                         | 1           | 36        |
| 3    | Policy and Governance Dynamics in MSP              | Research, data collection and analysis                         | 1           | 36        |
| 4    | Challenges and Solutions for Tropical Atlantic MSP | Research in interaction with civil society, building a network | 1           | 36        |
| 5  | Collaborative platform for innovative MSP          | Knowledge exchange and valorization, building a network        | 6           | 48        |

Creocean is heavily involved in this project, since it plans the work of several engineers from the Languedoc-Roussillon agency, a 3-year PhD thesis on the creation of the collaborative platform (WP5), and of an International Volunteer Internships during 12 months.

The different partners of the Paddle project, coordinated by IRD, are the following :

- France : UMR-AMURE (UBO), IRD / UMR MARBEC, University of Nantes
- Research Center: MARE (Portugal), ZMT (Germany), NDP (Cape Verde).
- Universities of Pernambuco (UFPE and URFPE -Brazil), Azores (Portugal), Seville (Spain), Wageningen (Netherlands), Cheikh Anta Diop (UCAD - Senegal).
- Two parliamentary networks in Senegal and Cape Verde : REPES and RPALCDP.
- Private companies (France) : Creocean, Terra Maris, PESC'ART