

## Strategic Plan of CENTEC 2015-2017

CENTEC aims at continuing to be one of the world's leading research centres in the area of Marine Technology and Ocean Engineering, specifically in the subject areas of Marine Environment, Marine Dynamics and Hydrodynamics, Marine Structures and Safety and Logistics of Maritime Transportation. In all those areas, the work of CENTEC has an important content of uncertainty modelling and risk assessment.

The proposed plan for strategic development of CENTEC aims at consolidating its core areas and in developing new research areas that will allow it to continue in the forefront of research in the area of Marine Technology and Ocean Engineering worldwide.

The consolidation of the **core research areas** is done through the research lines of the existing research groups, which include more than 40 PhD researchers:

- 1 **Marine Environment.**
- 2 **Marine Dynamics and Hydrodynamics.**
- 3 **Marine Structures.**
- 4 **Safety and Logistics of Maritime Transportation.**

The plan for strategic development of **new research areas** is done through a series of thematic lines, involving from one to all four groups:

- **Renewable Energies Offshore.**
- **Impact of Climate Change on Maritime Activities.**
- **Energy efficiency in the design and operation of ships.**
- **Logistics of Maritime Transportation and Ports.**

The renewable energies will be addressed including resource evaluation, dynamics, strength, safety and maintenance of the equipment.

The climate changes will impact the marine environment, influencing ship routes, and safety, leading to new design targets.

The study on energy efficiency in the operation of ships will concentrate on energy efficiency during operation without compromising safety in storm conditions.

Maritime transportation will be addressed both from the component of the shipping companies and of the ports as well as from the perspective of logistics and supply chains, also addressing their impact on the overall economy as reflected in maritime clusters.

It is envisaged to give continuity to the education through research, providing training to PhD students and experience to post-doctorate researchers, in an environment of wide international research cooperation. Dissemination will also be one of the main directions through the publication of journal papers and participation in conferences as well as organizing international conferences and seminars.