**Interdisciplinary Challenges and Solutions for the deployment of Marine Renewable Energies (MRE)**

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Marine renewable energy (MRE) can help to reduce future carbon emissions and meet the increasing demand for energy by a growing world population. Several technologies have been and are being developed to produce marine energy from wind, wave and currents. For example, France aims to install 6000 MW of floating offshore wind farms in the horizon 2030 in areas where water depths are greater than 40 m.

The development and deployment of these new technologies pose several technical, economical, social and environmental challenges. Therefore, a multidisciplinary overview of the problem becomes essential to develop solutions technically and economically viable, environmentally friendly and socially accepted.

This special session aims to bring several actors from industry and academia involved in the field of MRE (including electro-mechanical systems, foundations, etc.). Some examples of topics included in the session (list not exhaustive):

* Case studies for the development, deployment and maintenance of MRE solutions;
* Methodologies and/or case studies for design, life-cycle assessment, maintenance, lifetime extension and deconstruction of MRE in using deterministic or probabilistic approaches;
* Human, environmental and technical risks during sea operations and service lifetime in a multi-usage area;
* Electrical grid optimization and asset management;
* Legal, societal and environmental issues for the deployment of MRE.