

PORTOS Project

Facility Guidelines for the Testing of Marine Renewable Energy Devices and Technologies



Wave flume at the Universidade de Santiago de Compostela





Project Details	
Project acronym	PORTOS
Project title	Ports Towards Self-Sufficiency

Introduction

Sea ports have high-energy requirements which are normally catered for by fossil fuels and are a source of air pollution, two environmental problems that can be minimised by using renewable energy. Considering the convergence of resources, infrastructures and facilities in ports, marine renewable energy (MRE) has the potential to be a promising alternative.

PORTOS aims to assess, develop and promote the integrated use of renewable energy resources in Atlantic Area ports and increase their energy efficiency, establishing a roadmap to a more competitive and sustainable sector. Although there are proven technologies to harness MRE, new concepts are continuously being invented by academic, non-academic and industry inventors and entrepreneurs, who may not have enough resources and expertise to develop their ideas further.

In that regard applicants are invited to submit an application for the testing of their MRE device or technology to an independent Selection Panel (SP) comprising of experts in this sector. The SP positively appreciates solutions that can be integrated into ports.

Successful applicants will have access to one of the following facilities for two weeks;

- Universidade de Santiago de Compostela – USC (ES) wave/current flume;
- Ecole d'Ingenieurs en Genie des Systemes Industriels – EIGSI (FR) technical assessment of novel technologies;
- Universidad de Oviedo – UNIOVI (ES) – numerical modelling of novel technologies.

The institutions have various facilities. The maximum access that will be granted is two weeks. The researchers at each facility have vast experience and knowledge on MRE which will prove invaluable during the test. Applicants are required to contact the test facility prior to applying to ensure they can facilitate the campaign. Please read the Application Guidelines before applying. Applicants are required to contact the test facility prior to applying to ensure they can facilitate the device. The following are guidelines test facilities should adhere to during PORTOS testing projects.





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Key principles that all PORTOS test facilities will endeavour to work towards:

- 1.** The work carried out by the test infrastructure shall be based on accepted scientific approaches, preferably consensus-based, and any deviations from accepted scientific approaches will be substantiated in a manner considered generally acceptable by experts in the Ocean Energy field.
- 2.** The test will produce objective results, within accepted deviations during subsequent testing, and within the constraints of using the same procedures, equipment and persons used during a previous execution of the test.
- 3.** The results produced within the scope of work of the test infrastructure, will primarily be based on measurable or derived quantities.
- 4.** The results produced, within the scope of work of the test facility, are based on a recognised system of measurement that derives from accepted, known quantities (SI system) or other intrinsic or well-characterised devices or quantities.
- 5.** The processes within the PORTOS facility will produce objective results that are open to internal and external scrutiny, so that factors which may adversely affect the facilities pursuit of objective results based on scientific method, can be readily identified and mitigated.
- 6.** The pursuit of competent results through the use of generally accepted scientific approaches is the primary and overriding influence on the work of persons executing tests, all other influences being considered secondary and not permitted to take precedence.
- 7.** The PORTOS facility has the resources (people with the required skills and knowledge, the environment with the required facilities and equipment, the quality control, and the procedures) in order to undertake the work and produce competent results.
- 8.** Applicant must be able to set up the device within the test facility in good time, whilst complying with all the health and safety guidelines.
- 9.** Staff in the organisation have the authority to execute specific functions within the overall scope of work – and that the organization can demonstrate accountability for the results of the work.
- 10.** PORTOS facilities will work towards a common report style which presents a consistent and credible summary of the test outcomes for an external audience.





A summary of the Access Requirements regarding the Access Provider.

1. The Access Provider shall provide access free of charge to the selected user groups to the infrastructure managed by it, including all the logistical, technological and scientific support as well as specific training, that is normally provided to external researchers using the infrastructure.
2. The test setup will remain the property of the party that provided it, unless otherwise agreed upon.
3. Before accessing the Infrastructure, the User may (at the discretion and following normal procedures of the Access Provider) be requested to sign a contract with the access provider outlining:
 - a. Access terms to the Infrastructure,
 - b. Agreement to be bound by the provisions of the Grant Agreement,
 - c. Liabilities of the access provider and the User towards each other, rights with regards to Foreground (information and results generated under PORTOS) and Background (information held prior to PORTOS).
 - d. Consequences of a breach of these obligations by the User.
4. The Access Provider shall ensure that the users enjoy, on a royalty-free basis, access rights to the Background of the Access Provider and to the foreground, if needed to carry out their own work under the project. The Access Provider shall inform, as soon as possible, the Users of any restriction which might substantially affect the granting of access rights.
5. In addition to these agreements, it is important to consider some safety issues as the transnational access entails external people working in Lab/workshop environments. Each Member State may have their own national rules regarding safety standards. The Access Provider is responsible for knowing and enforcing the applicable rules.
6. Visitors must comply with test facility protocol concerning health and safety, security and insurance. Identification and all the necessary certificates and documentation must be provided before testing commences.
7. Local regulations could also require a commitment regarding medical capability, qualification and training on risk prevention, etc.
8. Prior to the access, the Access Provider must supply the User Group with Documentation on prevention of occupational risks: risk prevention manuals, safety standards, technical guidelines, emergency, etc.

