Interreg Atlantic Area
European Regional Development Fund
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PORTOS PROJECT
PORTS TOWARDS ENERGY SELF-SUFFICIENCY
PUERTOS HACIA LA AUTOSUFICIENCIA ENERGÉTICA
PORTS VERS UNE AUTOSUFFISANCE ÉNERGÉTIQUE
AUTOSSUFICIÊNCIA ENERGÉTICA EM PORTOS

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PORT COMPANY

Report on OpenLabs at Universities and R&D Institutions

University College Cork

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DISCLAIMER

EXECUTIVE SUMMARY

An open day was held as required by the PORTOS Project to highlight the project to the general public, and other interested parties. The MaREI centre provided an overview of the PORTOS Project to participants followed by demonstrations and experiments in Lir-National ocean test facility. The open day occurred during the holidays, facilitating third level students. Refreshments were provided before the end of the open day.

GENERAL INDEX

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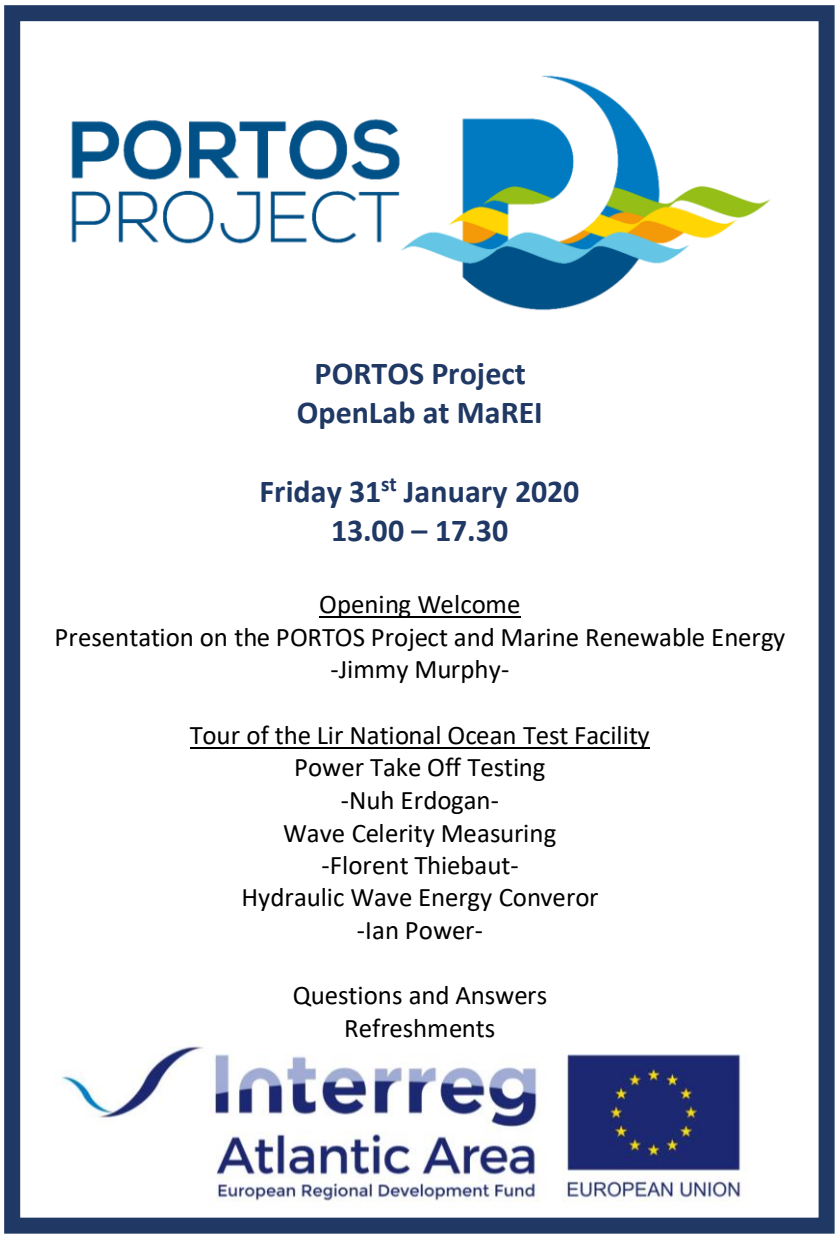
1. INTRODUCTION

On Friday January 31st, MaREI held an open day as part of the PORTOS Project. The objective was to advertise the PORTOS Project to the general public and interested stakeholders.

An open day was held as required by the PORTOS Project to highlight the project to the general public, and other interested parties. The MaREI centre provided an overview of the PORTOS Project to participants followed by demonstrations and experiments in Lir-National ocean test facility. Refreshments were provided before the end of the open day. Over 150 persons attended from the local community.

This event was advertised to schools, youth groups and the general public through MaREI website and social media channels and LinkedIn. The success of the open day resulted in a better understanding of the PORTOS Project, opened up links and improved communication to the local community.

2. DETAILED PROGRAMME



3. PARTICIPANTS

3.1. ORGANIZERS

The event was organised by MaREI employees.
Jimmy Murphy; Funded Investigator
Ian Power; Research Support Officer
Florent Thiebaut; Research Support Officer
Nuh Erdogan; Post-Doctoral Researcher
Nathan Kirwan; Researcher Assistant

3.2. GUESTS

There was not any guest speaker in attendance, however, Jimmy Murphy gave a comprehensive presentation on the PORTOS Project and the renewable energy associated with it.

3.3. NUMBER AND TYPE OF ATTENDEES

While some members of the public did attend, most visitors were young engineering students from two of the city's third level Institutions, University Collage Cork and Cork Institute of Technology. A total of 150 people visited during the day.

4. SUMMARY OF THE ACTIVITIES PERFORMED

Visitors were welcomed on site by Ian Power. After a few words about the building and health and safety, the attendees were guided to the conference room on the fourth floor. Jimmy Murphy gave a comprehensive presentation on the PORTOS Project and the renewable energy associated with it. The informative presentation lasted 40 minutes including some question and answers.

The visit continued on to the state-of-the-art scaled model testing facility, the Lir National Ocean Test Facility, with a tour of the electrical lab and wave basin. Visitors took part in some wave energy experiments to further their knowledge in wave energy convertors. Experiments included power take off testing of offshore renewable energy technology and wave celerity measuring by chasing waves between two fixed points in the wave flume. These demonstrations took 50 minutes to conduct with visitors interacting positively.

The visit can to a close in the lobby where the attendees enjoyed some refreshments. There was also time for questions and answers at this stage.

4.1. POWER TAKE OFF TEST

Nuh Erdogan demonstrated power take off measuring in our electrical lab. Visitors were able to get involved and learn more about transforming wave energy into useable electricity.

4.2. WAVE CELERITY MEASURING

Wave celerity measuring was carried out in the wave flume. Visitors timed the movement of a wave between two fixed points. Florent Thiebaut orchestrated this experiment and gave a detailed explanation.

Figure 1; Wave Celerity Measuring carried out in the wave flume.
Visitors timed the movement of a wave between two fixed points.

4.3. HYDRAULIC WAVE ENERGY CONVERTOR

This activity was demonstrated by Ian Power. Attendees were able to understand the effect different wave heights and different wave frequencies have on the efficiency of a hydraulic wave energy convertor. Activities included timing the flow rate of the pumped water during different sea states and pump outlet heights.

Figure 2; Pump theory being demonstrated with the aid of a wave energy device. Head, flow rate, friction and wave energy were shown to attendees.

5. MEDIA IMPACT

The event was advertised on MaREI social media platforms, Linkedin and local newspapers. Local schools and universities were also contacted informing them about the open day. An increase in online activity was recognised on MaREI social media platforms during the time of advertising.