



# Wave Energy Center Annual Seminar

# Work Developed

## Geophysical Characterization of the Pilot Zone:

- Realized by *Instituto Hidrográfico*, it comprises aspects such as:

✓ Bathymetry and morphology	✓ Sedimentary structures	✓ Cartography of the sedimentary cover
✓ Establishment of a baseline for water quality and sediment	✓ Object detection	✓ Oceanography
✓ Sediment dynamics in coastal areas and corridors	✓ Safety of navigation	✓ Data integration and presentation

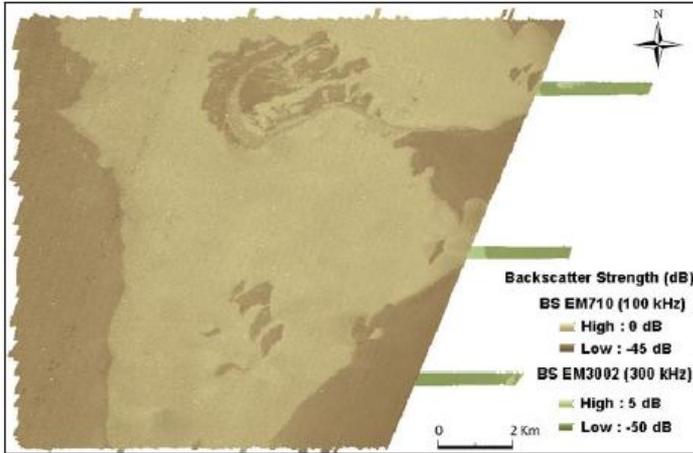
- According to preliminary data, the Pilot Zone has a **great energetic potential**, with great exposure to the oceanographic elements, especially winds and waves.
- All the information collected is **free and fully available** to the general public (please contact OceanPlug for further information)



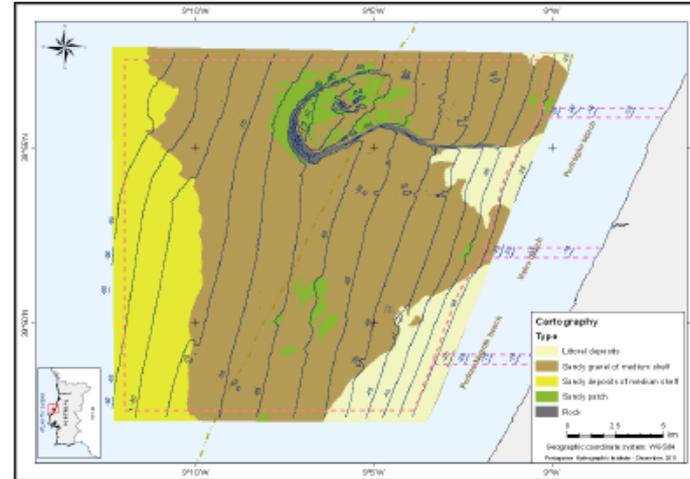
# Some Geophysical Data

## Geophysical Characterization of the Pilot Zone:

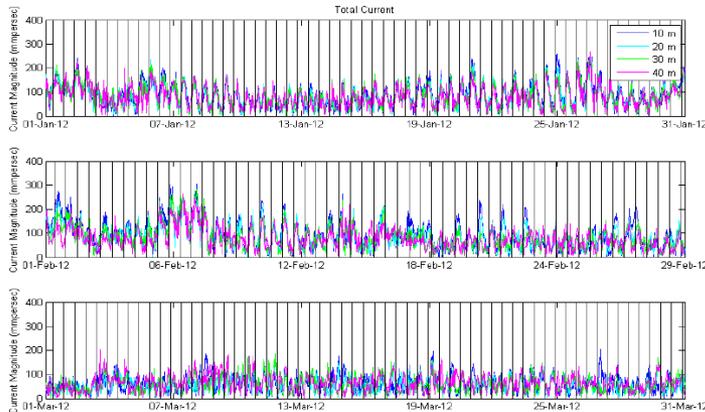
Backscatter variation due to the presence or proximity of gravel deposits



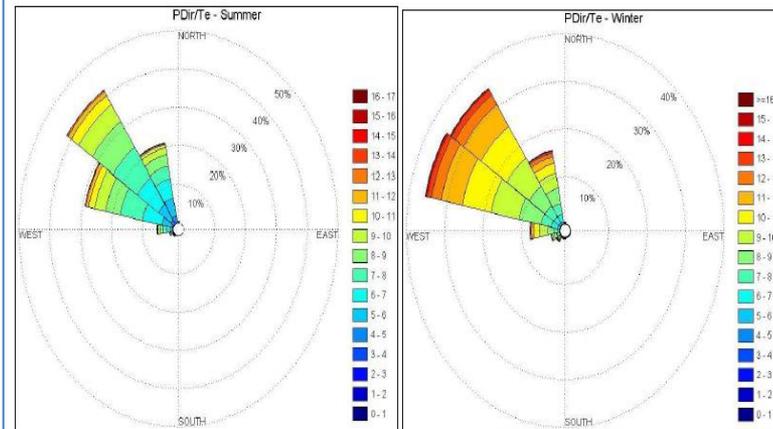
Sedimentary Deposits



Total Current for 10, 20, 30 and 40m of depth



Peak wave Direction and Energy Distribution (Summer and Winter)



# Animal Survey - Birds

## Abundant Species



Cagarra



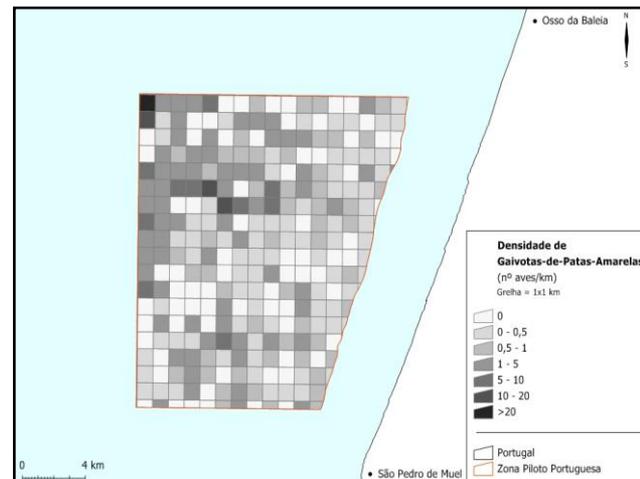
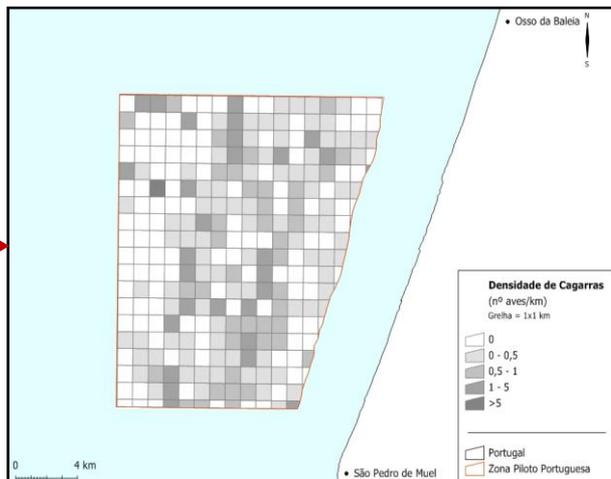
Fura-bucho



Alcatraz



Gaivota -de-patas- amarelas



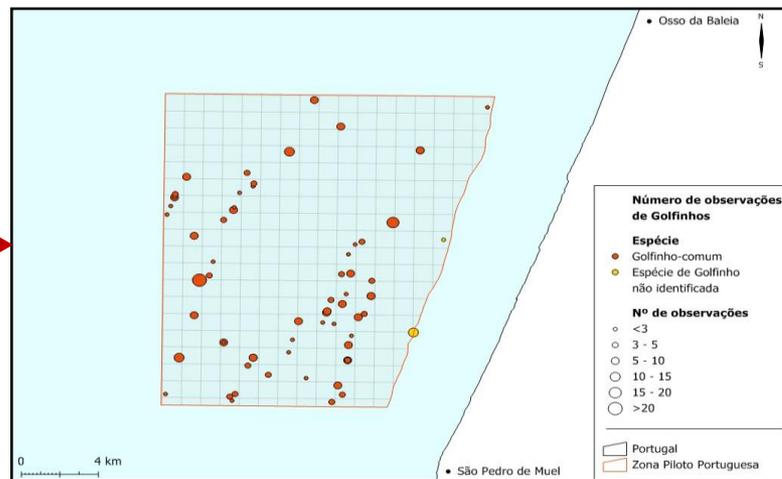
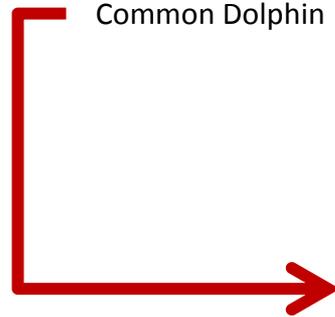
# Animal Survey – Maritime Mammals



Common Dolphin



Common Turtle



# Promotors – Economic Impacts

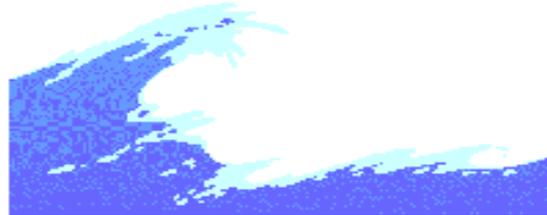
With their coming to Portuguese Pilot Zone, promoters will need to use certain types of equipment and services that can be provided by the national supply chain.

As an example, it is probably economically more advantageous that a promoter builds his machine in domestic shipyards, near the area of deployment, rather than transport it directly from his country of origin.



## Concluding...

- ✓ Portugal presents the ideal conditions for the development of oceanic energies.
- ✓ There are several Test Sites in Europe but none of them have the geophysical characteristics nor the access conditions that vigor in the Portuguese Pilot Zone.
- ✓ The Portuguese Pilot Zone has a good energetic resource, without having too many destructive storms. Also, a promoter can develop its project from the concept demonstration all the way to commercial in the same place.
- ✓ Portugal will benefit from the development of oceanic energies, including the attraction of foreign investment, revitalization of the maritime sector and creation of direct and indirect jobs.
- ✓ With the development of such projects, the possibility of bigger initiatives such as an Atlantic SuperGrid or the transport of energy in DC is latent. If they become real, Portugal will not only have energetic independence from foreign countries but it will probably become an exporter of energy.





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