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## **Toward Best Practices for Public Acceptability in Wave Energy**

*Issues Developers Need to Address*

Petrova, Maria Stefanovich; Chozas, Julia Fernandez

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# Toward Best Practices for Public Acceptability in Wave Energy: Issues Developers Need to Address



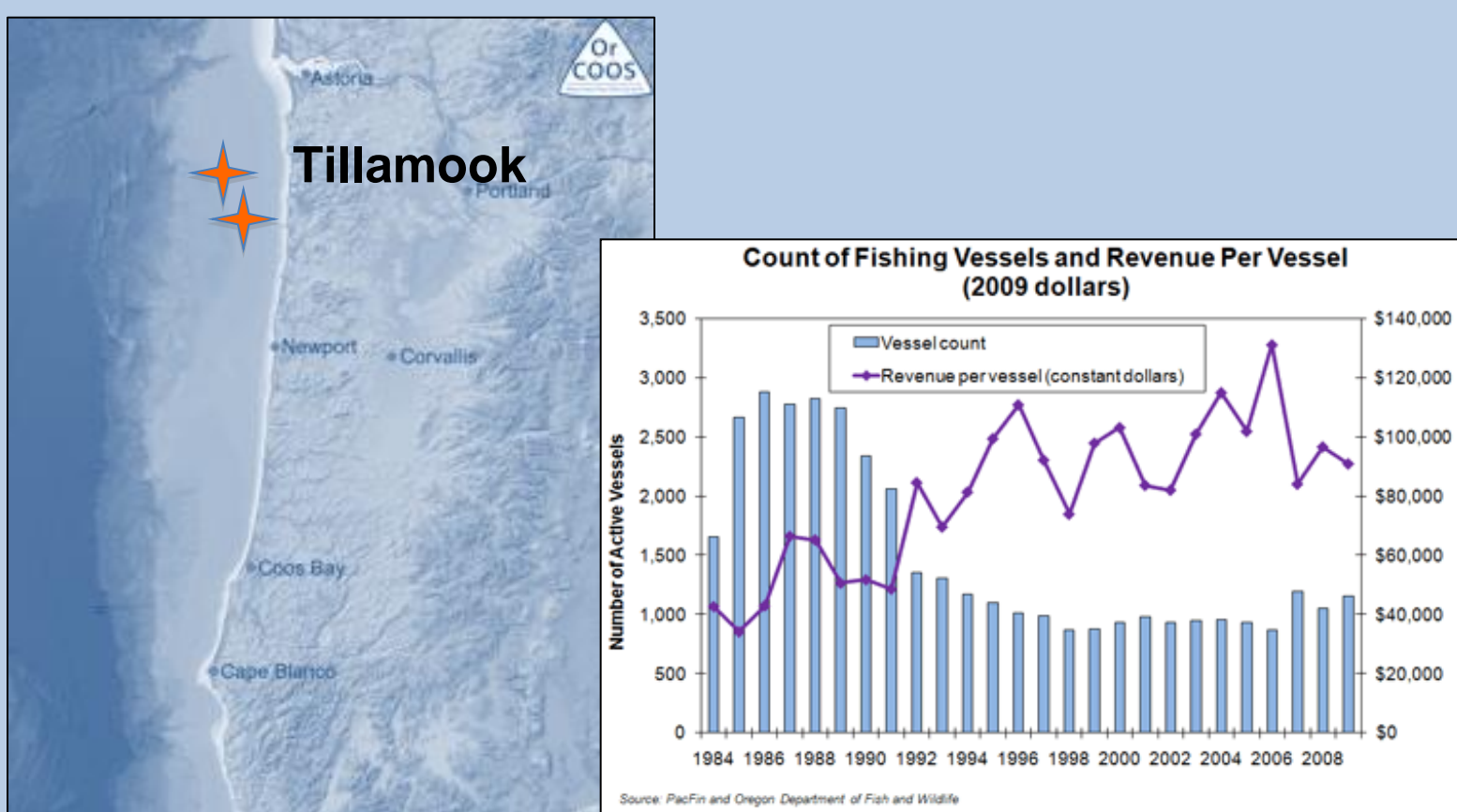
Mussels growth in Wave Dragon scale 1:4.5



Wave Star 1:50 and 500 kW wind turbine, Hanstholm, DK



Wave Dragon public meeting in Wales, 2006



ISSUES TO ADDRESS	DESCRIPTION
CONFLICTS OF USE	<ul style="list-style-type: none"> <li>Commercial fishing</li> <li>Recreational fishing &amp; boating</li> <li>Surfing</li> </ul>
ENVIRONMENTAL IMPACT CONCERNS	<ul style="list-style-type: none"> <li>Bottom species habitat</li> <li>Marine mammals &amp; other species, including birds</li> <li>Entanglement</li> <li>Reproduction</li> <li>Migration</li> </ul>
NIMBY ISSUES	<ul style="list-style-type: none"> <li>Visual impact</li> <li>Noise impact</li> <li>Aesthetic impact</li> </ul>
COMMUNITY WELL-BEING CONCERNS	<ul style="list-style-type: none"> <li>Employment</li> <li>Income</li> <li>Benefits / costs</li> <li>Tourism</li> </ul>



Commercial fishing boats, Newport, Oregon



<http://www.waveplam.eu/page/default.asp?id=428>



Organised visit to Mutriku pilot plant, 2009

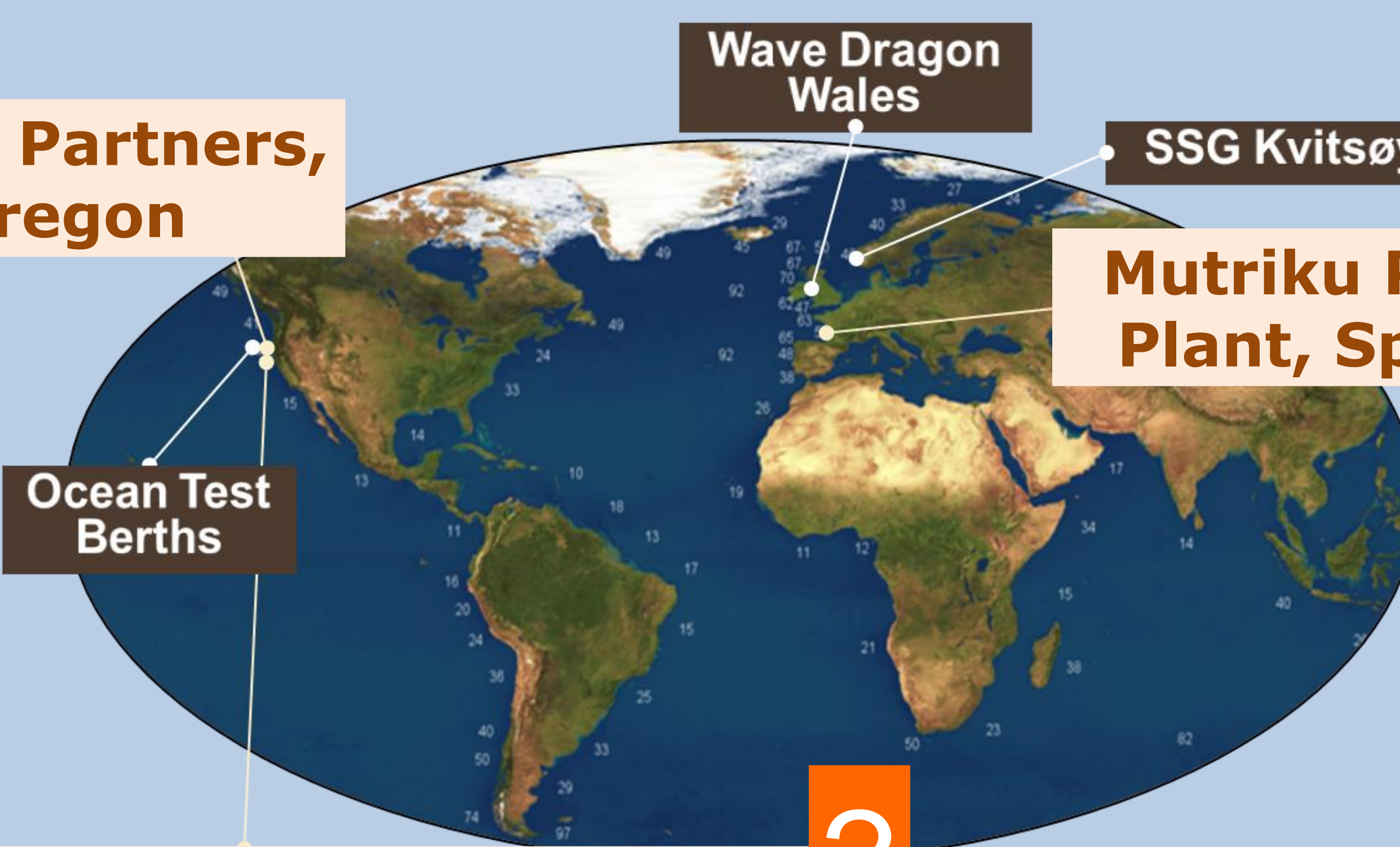
**BEST PRACTICES**

"Achieving a positive endorsement of wave energy projects among stakeholders without alienating key members of the local to the project communities."

## 3 CASE STUDIES

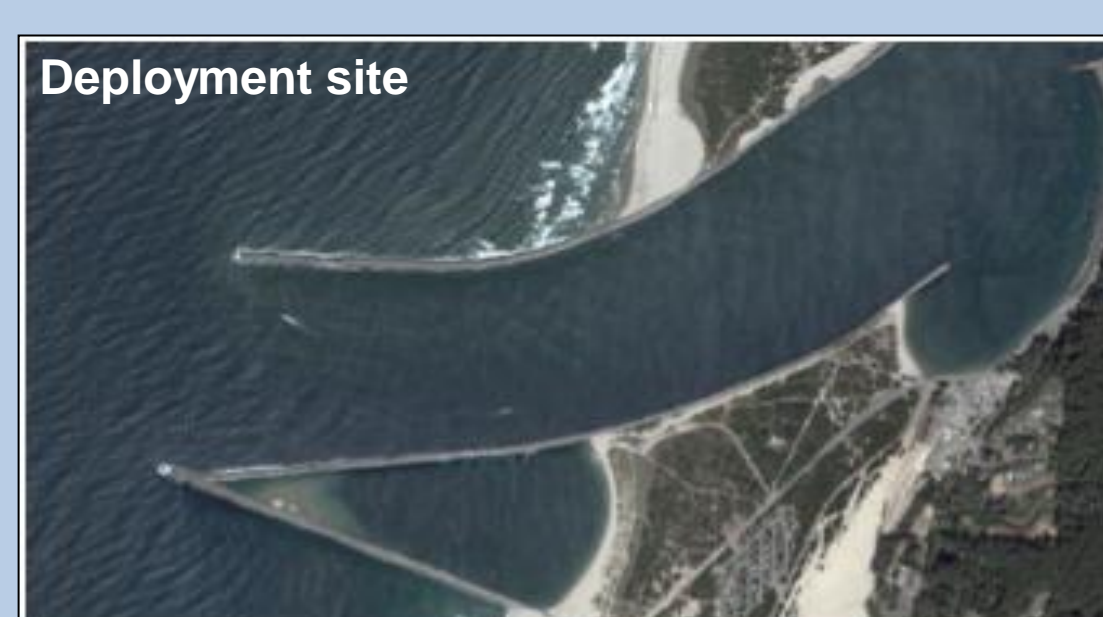
### 1 Columbia Energy Partners, Tillamook, Oregon

- County obtained preliminary permit
- Early meetings with TIDE & FACT members
- Fishermen objections: lost fishing & crabbing grounds; block transit routes & crowd North Coast waters with displaced fishermen; aesthetic concerns; concerns on heat of undersea cables reducing fish stocks.
- Agreement terminated



### 2 Douglas County, Winchester Bay, Oregon

- Integrating a wave energy plant into an existing jetty
- Great surfing spot
- Public meetings held early on to identify info gaps and research areas
- Active participation from the surfing community
- Plans for license application in 3 years



Deployment site



Columns of water through Mutriku OWC in construction

- Integrating a wave energy plant into a breakwater
- Few engagement practices
- Major event after a storm producing loud noise that could be heard 3-10 km away
- Main opposition from the Green Party
- Fishermen support
- Increased tourism flow
- To be operational by mid Oct. 2010

## LESSONS LEARNED

1. Public involvement should be a combined effort by the developer and the local authorities
1. Acceptance increases after construction
2. Explore the issues in an open environment and identify them early; be flexible in communicating
3. In the presence of strong fishermen opposition – reconsider

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