



FINAVERA
RENEWABLES Ltd.

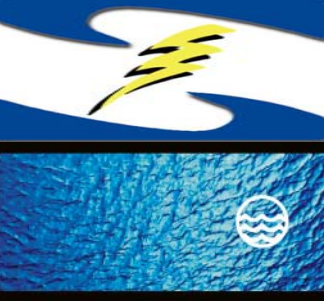


Harvesting the Motion of the Ocean

AquaEnergy Group Ltd.
An Ocean Energy division



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Overview

- Formation / merger / business model
- AquaBuOY product development
- Wave energy projects
- Ocean Energy Industry





AquaEnergy Group Ltd.

- **Formed on February 1, 2001**
 - A U.S. corporation
 - Headquarters in Seattle
- **Business approach:**
 - Product development – AquaBuOY
 - Projects development & generation
 - Independent Power Producer (IPP)
- **On June 9, 2006 merged with Finavera Renewables Limited (IE)**
 - Generation from Wind and Wave
 - Is now an Ocean Energy division of Finavera Renewables





Market Drivers

LEGISLATIVE

Renewables
Obligation/EU
Renewables Directive
Kyoto Accord
Climate Change Levy

ECONOMIC

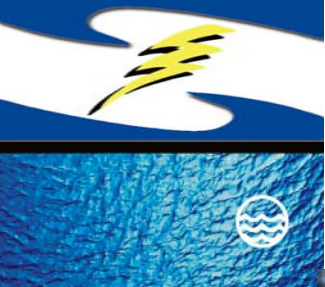
Reducing cost of
producing green energy
Increasing reliability of
renewables
technologies
Global energy demand
and cost forecast to
continue to grow rapidly
Historically high energy
prices over medium to
long-term

CULTURAL

Awareness of
importance of
environmental
sustainability
Increasing number of
governments/companie
s adopting 'green'
policies
Green/SRI funds rapidly
increasing

**Finavera Renewables Limited will capitalise opportunities
created by these trends**

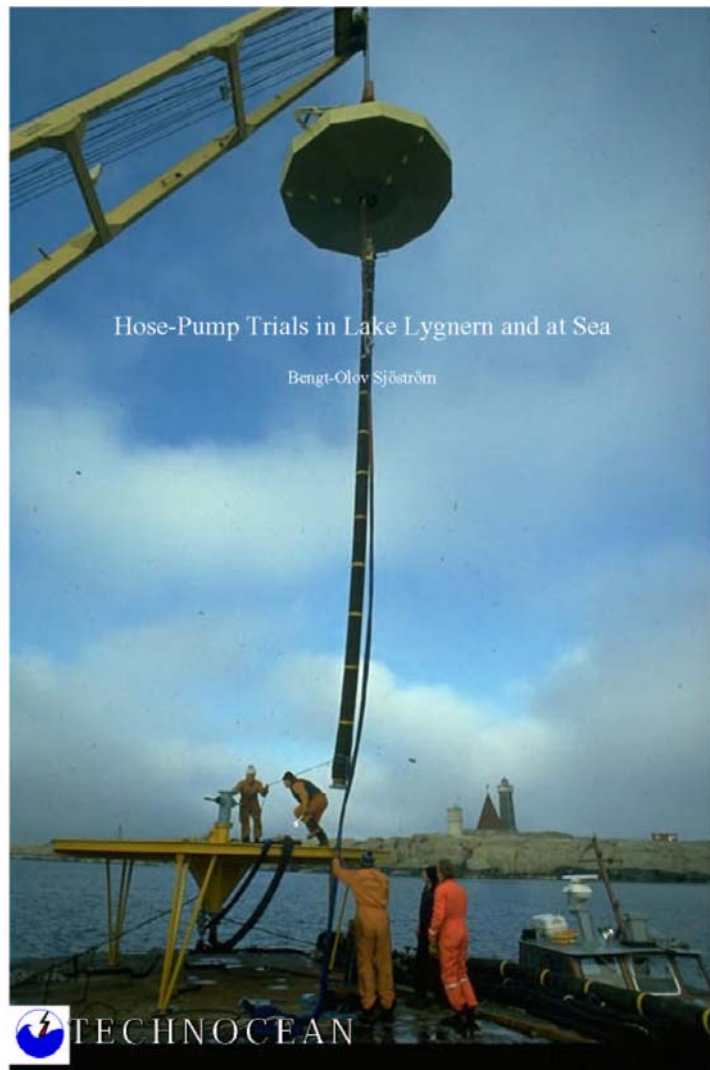




Predecessor Technologies



IPS Buoy

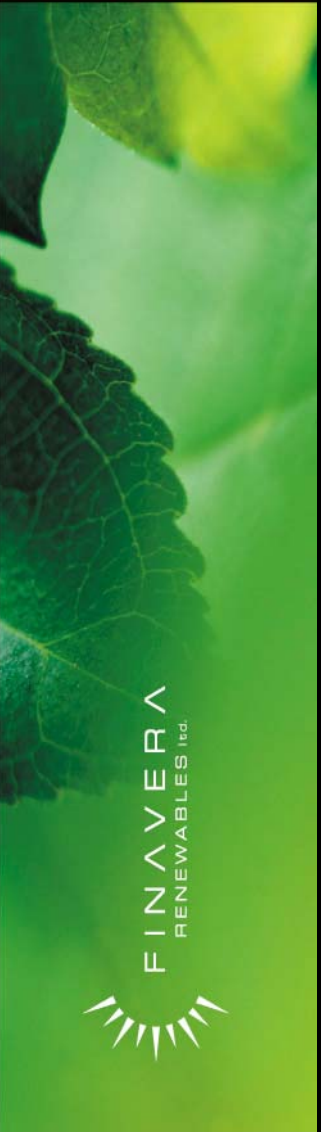


Hose-Pump Trials in Lake Lygnern and at Sea
Bengt-Olov Sjöström

 **TECHNOCEAN**

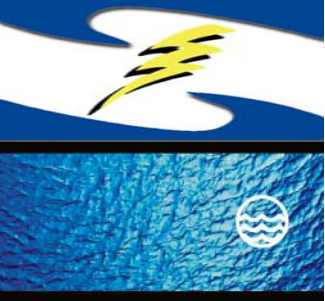


IPS Buoy

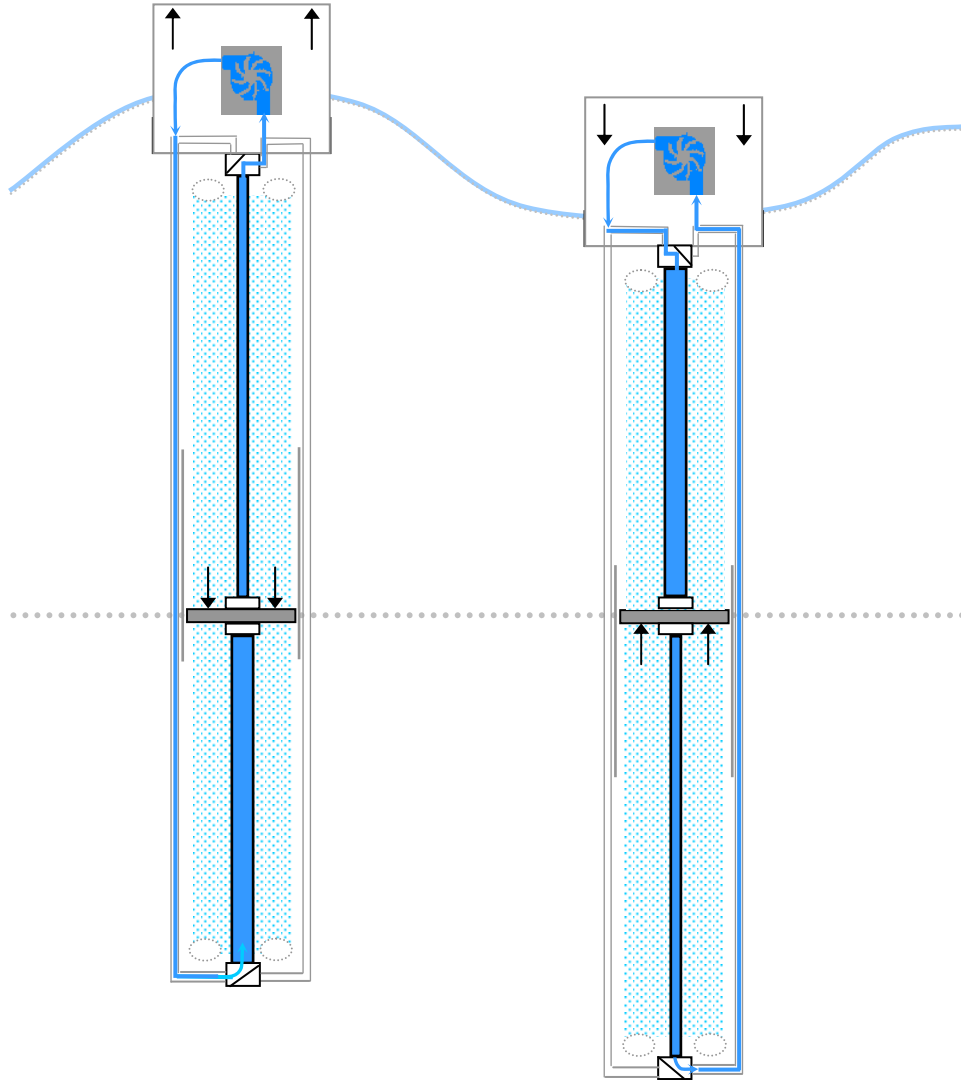


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RENEWABLES Ltd.





AquaBuOY – Operating Principle

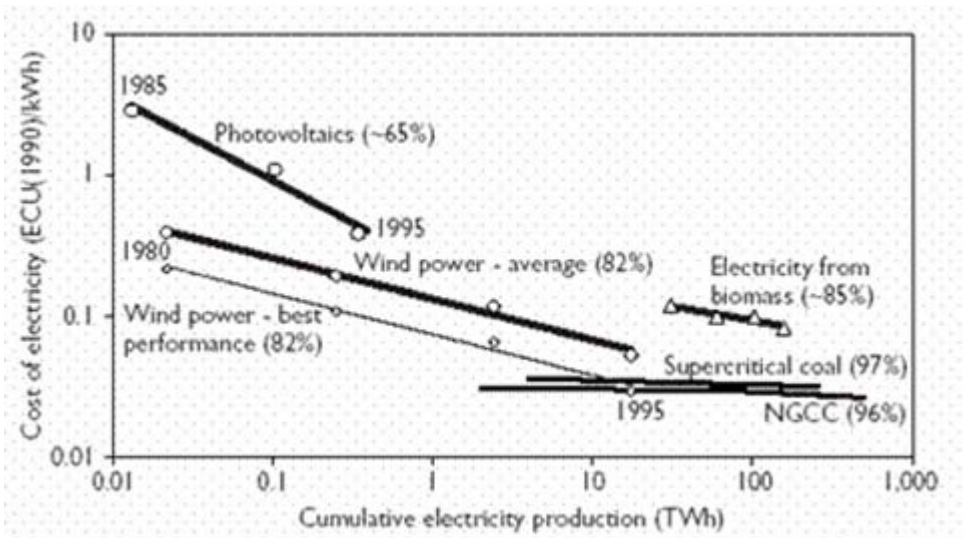


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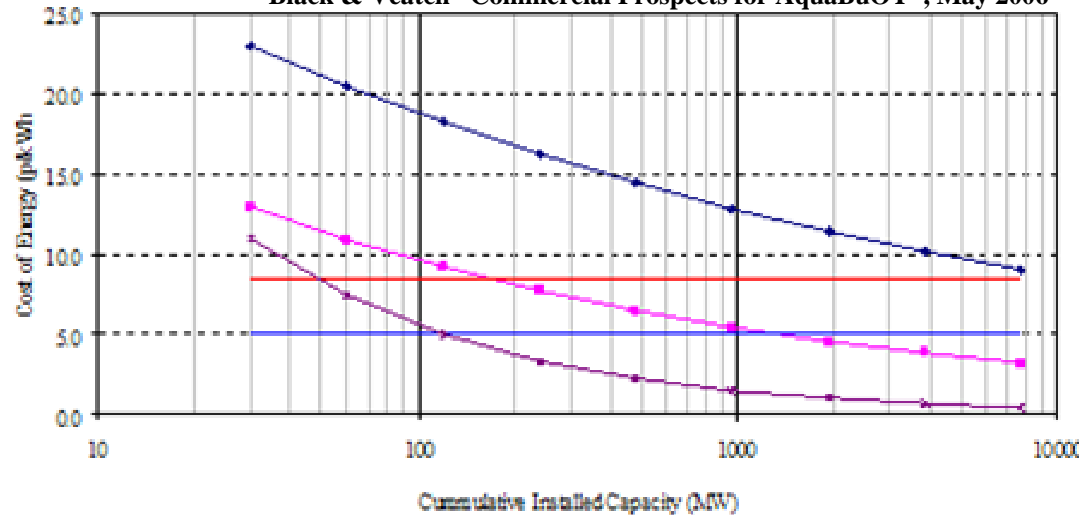




Value Proposition



Black & Veatch "Commercial Prospects for AquaBuOY", May 2006



Wave Energy @ market rates



Projects

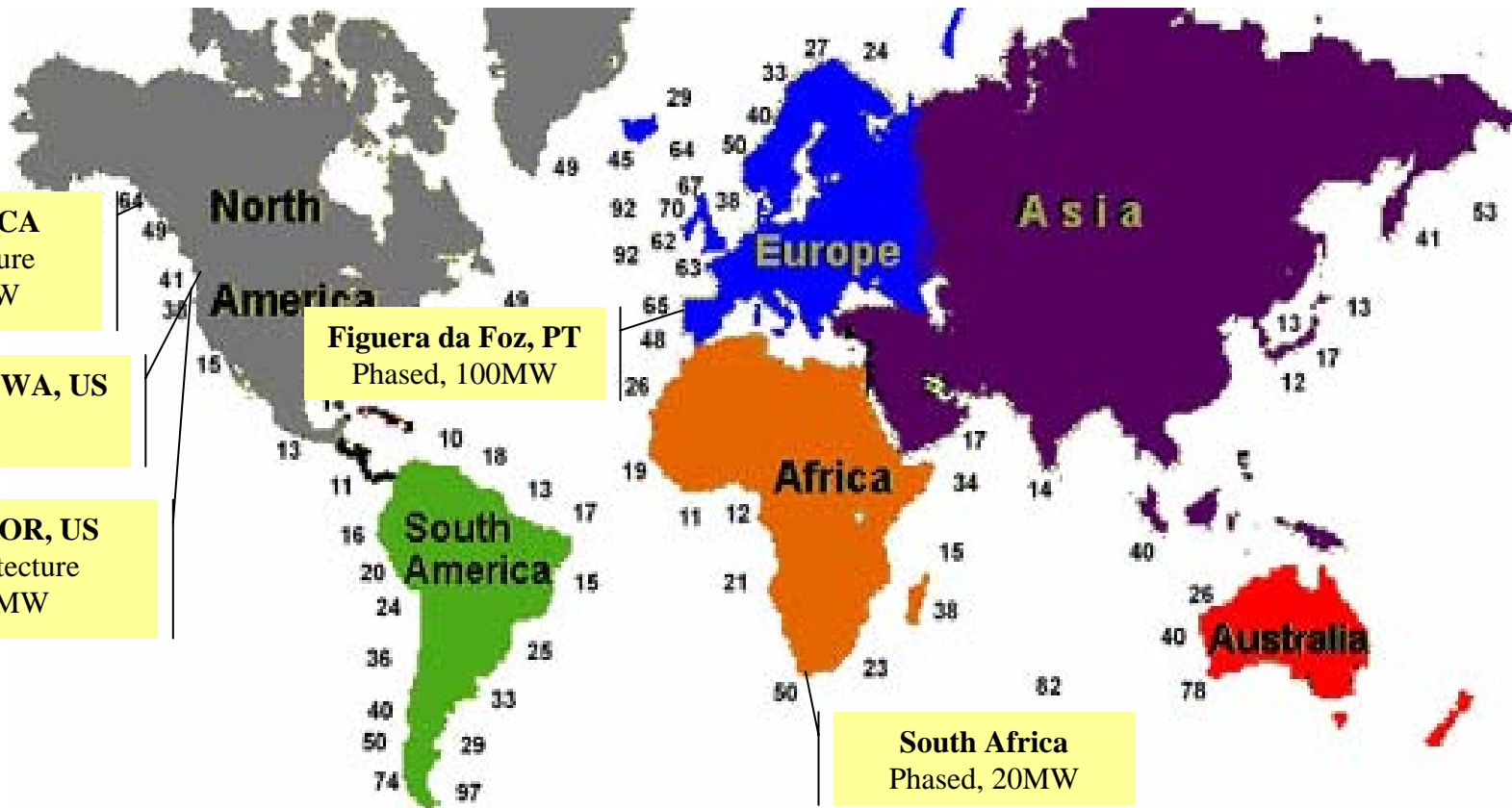
Ucluelet, BC, CA
Open architecture
Phased, 100MW

Makah Bay, WA, US
Demo, 1MW

Coos Bay, OR, US
Open architecture
Phased, 50MW

Figuera da Foz, PT
Phased, 100MW

South Africa
Phased, 20MW





USA – Makah Bay/Demo

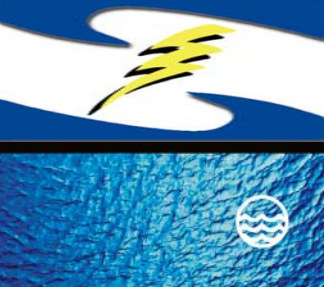
- **Partners**
 - Clallum County PUD
 - Makah Indian Nation
 - AquaEnergy Group
 - NW Energy Innovation Center
- **Demo – 1 MW (2007 – 2009)**
 - PPA with CCPUD
 - Land Lease with Makah
 - Earmark request submitted for FY '07
 - EA – completing this month
 - Grants from PSE & SnoPUD
 - Permits in hand ~ 2nd qrtr. 2007
- **Project Supporters**
 - WA PUS Association
 - CCEDC
 - SAIC, OIW, Todds Ship Yard





Environmental Assessment

- **Scope of Work**
 - Jointly developed and agreed to with the OCNMS
- **Technical Advisors**
 - Battelle Marine Science Lab
- **Geophysical Survey**
 - Analyzed sea floor
 - Determined cable route
- **Oceanographic Survey**
 - Wave energy resource
 - Ocean currents
 - Sedimentation rates
- **Tribal Cultural and Historical Perspective**
 - Impact on tribal cultural and environmental resources
- **Marine and Land Impact**
 - Marine Mammal
 - Fish and Wildlife



Required Permits - Federal

Participant/Agency	Permit/Document
Federal Energy and Regulatory Commission (FERC)	Hydropower license NEPA document lead agency
Makah Indian Nation – Makah Tribal Council	Land Lease
Tribal Historical Preservation Office (THPO)	Section 106 Review
U.S. Bureau of Indian Affairs	NEPA Review
National Oceanic and Atmospheric Association (NOAA)/OCNMS	Olympic Coast National Marine Sanctuary (OCNMS) Permit
National Marine Fisheries Service	Threatened and Endangered Species Review
U.S. Army Corps of Engineers (USACE)	Section 10 or 404 – for buoys
U.S. Coast Guard	Aids to Navigation Permit
U.S. Fish and Wildlife Service	Threatened and Endangered Species Review



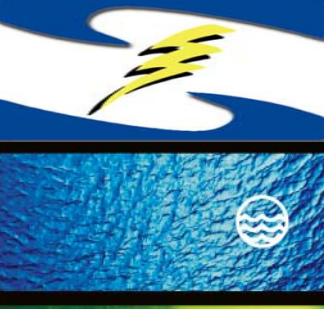


Pilot Plant Permits – Local/State

Agency	Permit
WA State Ecology	Section 401
WA State Office of Archeological and Historical Perspective	Section 106 Review
WA State Department of Fish and Wildlife	No Hydraulic Project Approval required with FERC license.
WA State	SEPA Checklist
WA State Department of Natural Resources (WDNR)	Land Lease – for cable/shore connection and plant footprint

Status:
PDEA – completed

FERC license application submitted – 7/11/06



Canada - Ucluelet

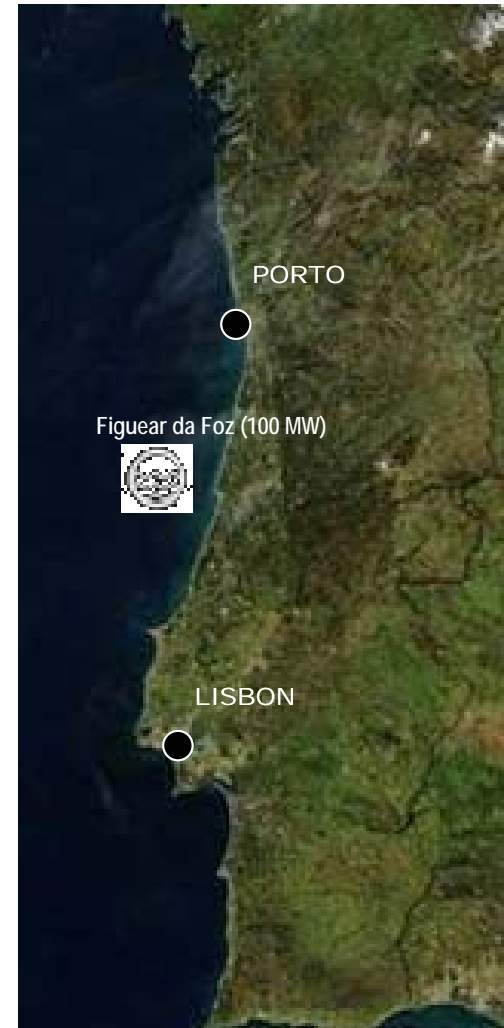
Phase 1 - 5MW - Start 2007





Portugal - Figuera da Foz

- **JV partners**
 - EDP/Labelec
 - Finavera Renewables/AquaEnergy
 - Kymaner
 - JV registration completion – 2006
- **Phase 1 – 2 MW (2007 – 2009)**
 - Obtained € 1.3M grant from EC
 - Remainder financed by JV partners
- **Phase 2/3 – 100 MW Expansion (2010 – 2012)**
 - Commercial expansion
 - Debt/Equity financing





South Africa

- **Commitment under Clinton Global Initiative**
- **A 20 MW plant in 5 years**
- **Schedule**
 - Site selection - 2006/2007
 - Permitting - 2007/2008
 - Phase 1 ~ 2 MW - 2009/2010
 - Phase 2 - expansion - 20011





USA – Coos Bay, OR

- **Open Source architecture**
 - Multiple principles of ocean energy conversion
- **Phase 1 - Permitting**
 - Preliminary application to FERC submitted 23/11/2006
- **Phase 2 - 2 MW installation**
 - PPA planned to be in place 2007
 - Permits - 2009





Ocean Energy Industry

- **USA**
 - Starting to develop
 - AquaEnergy created foundation
 - Sen. Cantwell (WA, D) included Ocean Energy language in the Energy Policy bill since 2002
 - Brought all permitting agencies to address Wave energy impacts – PDEA created under the ALP, a condensates based process
 - EPRI assessment -2004
 - OREC formed - 2005
 - Worked with Rep. Jay Inslee since 2002
 - Allowed OREC to push for a \$4M appropriation for DOE through Inslee's amendment
 - 2005 National Energy Policy bill now includes Ocean Energy
 - MMS is to develop leasing approach
 - DoE to establish an Ocean Energy program
 - DoE to perform US resource assessment





Ocean Energy Industry

- **CANADA**

- In 2003, PNWER passed resolution co-authored by AquaEnergy and OREG
- OREG is working on a number of government support initiatives
- AquaEnergy/Finavera lobbying CA government for ocean energy project tax incentives

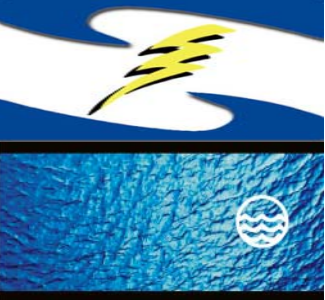




Ocean Energy Industry

- **Europe**
 - Public funding support
 - UK, Portugal, Ireland, European Commission
 - Coordinated Action of Ocean Systems
 - EC funded collaboration
 - Market incentives
 - Portugal, UK, Spain, Ireland
- **European Ocean Energy Association**
 - Formed 2006
 - A. Weinstein – the first Chair
 - Received Euro 450K from EC
 - Main objective – public awareness





Summary

**It's all about the motion
in the ocean**

