

# Harnessing Natural Capital to Deliver Blue Growth:

## Lessons Learned from the Ecosystem Approach

**Michalis Skourtos**

**On behalf of STAGES, MISIS and PERSEUS Projects**

European Maritime Day,  
Malta, 21-22 May 2013

YOUR ATTENTION PLEASE!

This is (should be) an **interactive presentation**

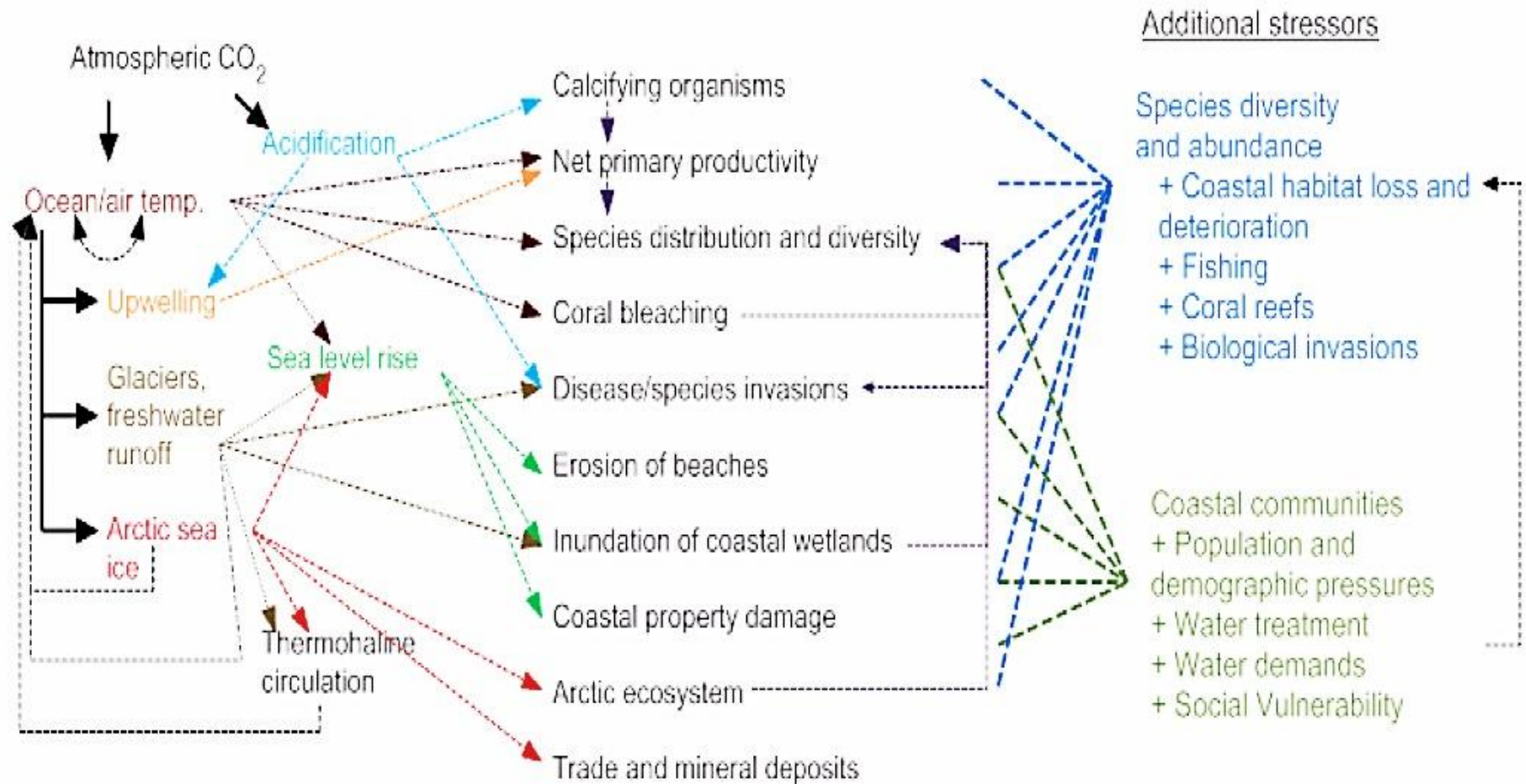
You are welcome to interrupt, intervene,  
ask or criticize along the talk!

# World Marine Industry Sector 2005–2009 (€ billion)

	200	400	600	800	1,000	1,200	1,400	Value € Billion	Annual Growth %	Total Growth %
Shipping & Transport								1,437	1.8%	7%
Marine Tourism								928	3.3%	14%
Offshore Oil & Gas								476	1.7%	12%
Seafood Processing								385	-0.4%	3%
Marine Equipment								358	-0.6%	-1%
Fishing								250	-2.5%	-4%
Shipbuilding								155	-4.0%	-10%
Ports								136	3.2%	18%
Marine Aquaculture								134	4.0%	17%
Cruise Industry								67	4.4%	24%
Research & Develop								54	1.4%	10%
Seaweed								33	3.0%	13%
Marine Commerce								29	-1.8%	7%
Marine IT								16	-0.9%	7%
Minerals & Aggregates								15	2.7%	11%
Renewable Energy								13	131.4%	987%
Marine Biotechnology								12	3.8%	24%
Submarine Telecoms								12	21.8%	97%
Ocean Survey								10	1.3%	11%
Education & Training								8	1.5%	14%

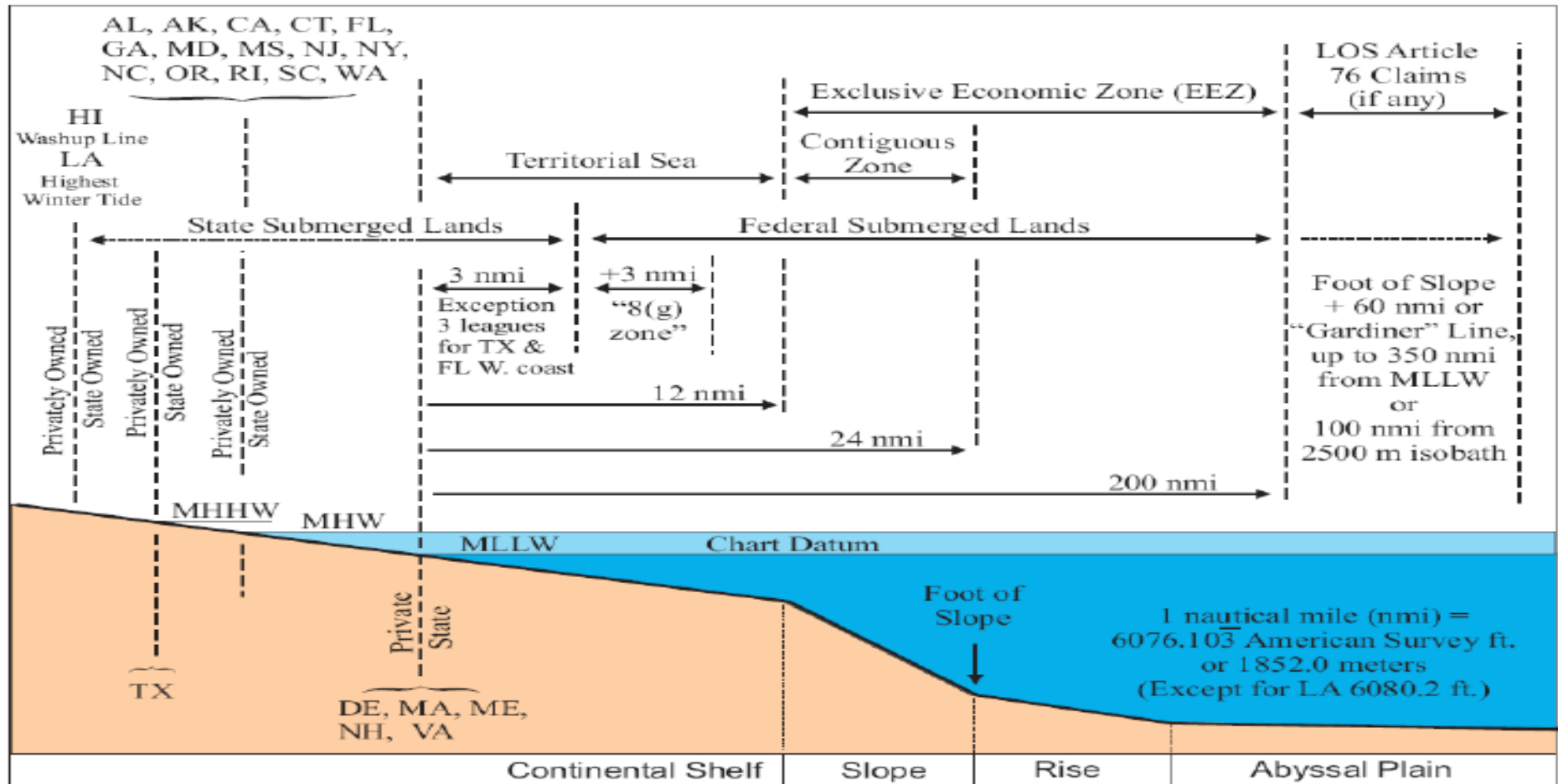
Source: Douglas-Westwood Ltd (2005).

# Stressors of Coastal and Marine Ecosystems



Source: Kling and Sanchirico (2009)

# The web of property rights: Private, State, & Federal Rights to Coastal & Marine Resources



Notes: LOS=Law of the Sea, MHW=Mean High Water, MHHW=Mean High High-Water, MLLW=Mean Lower Low-Water Mark

# **Stakeholder Dialogue:**

## **We give you the facts, you give us the ideas!**

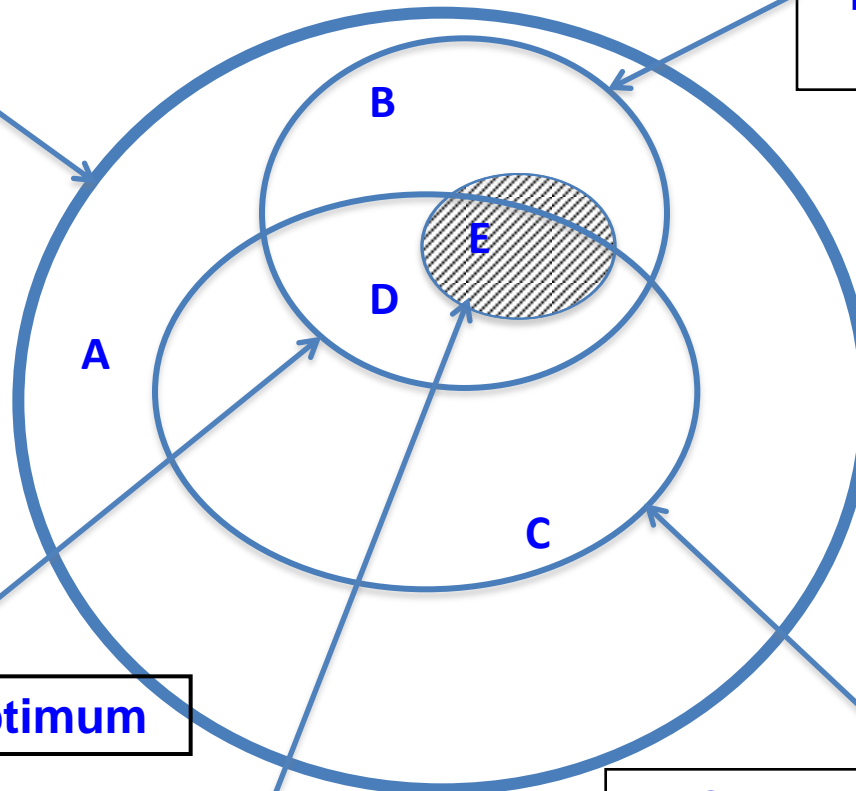
- EBM is a complicated task
- The voice of society
- The role of science

**Share control over research!**

# The Policy Space

**A: All that should be done**

**B: All that is technically feasible**



**D: The social optimum**

**C: All that is socially desirable**

**E: What will be done in a second-best world**

# STAGES (FP7 ENV 2012) - Science and Technology Advancing Governance of GES

**Improve the current scientific knowledge base and connect science to policy to help achieve GES in marine waters and support MSFD implementation**

## THE PARTNERSHIP

Name
Centro Tecnológico del Mar – CETMAR
Fundacao Eurocean
Institut Francais de Recherche pour l'exploitation de la Mer-IFREMER
Fondation Europeenne de la Science EU-MB
AquaTT UETP Ltd
International Council for the Exploitation of the Sea-ICES
JRC-Joint Research Centre-European Commission
Institute of Marine Reserach – IMR

## THE BOARD

Organisation
DG ENV
EEA
OSPAR
HELCOM
BONUS
Black Sea Commission
Ministry Agriculture, Food and Environment-SP
MINISTÉRIO DA AGRICULTURA, DO MAR, DO AMBIENTE E DO ORDENAMENTO DO TERRITÓRIO-PO
JPI Oceans
SEASERA
PERSEUS

## For more information:

Project Coordinator  
 Marisa Fernandez Cañamero  
 CETMAR  
[mfernandez@cetmar.org](mailto:mfernandez@cetmar.org)  
 Tel. +34 986 247 047 Ext. 102

**THE BUDGET: €999.692.00**



# Objectives:

**Key Objective 1:** Identify, extract and synthesise existing knowledge

**Key Objective 2:** Establish research needs and gaps

**Key Objective 3:** Provide recommendations to establish an European science-policy platform to support implementation of MSFD.



# **MISIS - MSFD Guiding Improvements in the Black Sea Integrated Monitoring System**

## **Partners:**

**Romania:**

**NIMRD “Grigore Antipa”**

**GeoEcoMar**

**Ovidius University**

**Bulgaria - IO-BAS**

**Turkey - SNUFF Sinop**

## **Project Coordinator:**

**Laura Boicenco**

**NIMRD**

**lboicenco@alpha.rmri.ro**

**Period of implementation: March 2012 – February 2014**



**[www.misisproject.eu](http://www.misisproject.eu)**



**Overall goal:** Support efforts to protect and restore the environmental quality of the Black Sea toward sustainable development of the region.

## **Specific objectives:**

- Improve availability and quality of chemical and biological data
- Increase number and size of protected areas in the Black Sea
- Enhance stakeholders participation and public awareness

- 21 countries
- 53 partners
- 2 Subcontractors
- More than 300 scientists
- Project Duration: 48 months
- Start: 1st of January 2012
- Budget EC: 12,973,124.40 €
- Coordinator: E. Papathanassiou (HCMR)





# PERSEUS Targets










1. Identify patterns of natural and human-derived pressures and assess their impact on marine ecosystems
2. Design an innovative, small research vessel to serve as a scientific survey tool in very shallow areas.
3. Use scenarios to explore interactions between projected human-derived and natural pressures.
4. Develop a framework of adaptive policies and management schemes to help in reaching GES.
5. Define and rank feasible and realistic policies

# How can Stakeholders inform Research?

- ✓ By providing a justification / rationale for targets!
- ✓ By supplying new facts and data
- ✓ By reminding us what we still have to accomplish!

# A first 'Go' on a Joint Science/Stakeholder Dialogue: Describe the Problem and Define Policy Goals

*Environmental risks selected for adaptive policy framework case studies*

Sub-regions	Western Mediterranean		Central Mediterranean		Eastern Mediterranean		Black Sea	
Main Risk	Coastal	Basin	Coastal	Basin	Coastal	Basin	Coastal	Basin
 Alteration of hydrographical conditions (D7)		✗	✗	✗		✗	✗	✗
 Chemical pollution (D8, D9)	✗	✗	✗	✗	✗	✗	✗	✗
 Nutrient and organic enrichment (D5)			✗		✗		✗	
 Physical damage and loss of habitats (D6)	✗	✗	✗	✗	✗	✗	✗	
 Introduction of non-indigenous species (D2)	✗	✗	✗	✗	✗	✗	✗	✗
 Overfishing (D3)	✗	✗	✗	✗	✗	✗		✗
 Marine litter (D10)	✗	✗	✗	✗	✗	✗	✗	✗
 Underwater noise (D11)		✗		✗		✗		
 Jelly blooms (D1, D4)			✗					

✗ Risks found

 Risks selected for APF case studies

# Let's debate!

1. Is EBM feasible in terms of scientific knowledge?
2. Which aspects of blue growth need answers from the scientific community?
3. Who should drive the policy agenda?
4. How do we share information when nobody wants to share?
5. Is popularizing science enough to reach consensus?
6. Other?





Thank you for listening!