Ocean Industry Leadership and Collaboration in Achieving the Optimal Use of Marine Resources

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Sustainability: New Risks for Ocean Industries

Converging Marine Environmental Megatrends

Precautionary Approach
  + Marine Protected Areas
    + Ecosystem Based Management
      + Marine Spatial Planning
        + Marine Biodiversity
          + High Seas Concerns

= an increasingly complex and challenging business environment for ocean industries

Smart companies will realize the policy, planning and operational risks and opportunities these trends create
The Multiple Use Ocean
The diverse “Ocean Business Community”

1. **Direct Ocean Users**
   Industries that depend on the ocean for the extraction or production of goods (living, non-living, energy) and the provision of services (transport, tourism, etc.)

2. **Ocean User Support Industries**
   Industries that depend on direct users for their existence (e.g. shipbuilders) or drive ocean industry growth (e.g. extractors, manufacturers, retailers that transport materials or products by sea)

3. **Essential Ocean Use “Infrastructure”**
   Insurance, finance, legal and other essential services that enable ocean industries to operate
Growing Ocean Use

- Cruise and coastal tourism
- Shipping
- Offshore oil and gas
- Fisheries
- Aquaculture
- Mining
- Dredging
- Submarine cables/pipelines
- Offshore wind energy
- Wave/tidal energy
- Ports/marinas
- Recreational/sport boating
- Desalination
- Carbon sequestration
- Navy/military use

Expanding
- Kinds of use
- Levels of activity
  - Duration
  - Intensity
  - Frequency
- Location of activity
  - Geographical Extent
  - Frequency
Ocean View: Stakeholder Perception
Ocean View: Marine Ecosystem Impacts

- Very Low Impact (<1.4)
- Low Impact (1.4–4.95)
- Medium Impact (4.95–8.47)
- Medium High Impact (8.47–12)
- High Impact (12–15.52)
- Very High Impact (>15.52)
Ocean View: Non-Industry Values/Vision

- Species diversity
- Marine ecoregions
- Biodiversity hotspots
- Ocean protected area network
The Ocean Business Community Challenge

- Ocean industries require access and the social license to use ocean space and resources.
- Many of the critical issues affecting access and social license are cross-cutting or cumulative.
- Sustaining ocean health and productivity requires responsible use and stewardship by all users.
- The best efforts by a single company, or an entire industry sector, are not enough to secure the future health and productivity of the ocean.
- Ocean industries will benefit from collaboration with other sectors to develop synergies and economies of scale to address the issues and ensure access and social license.
Ocean Business-Driven Solutions

Ocean Business Community need and opportunity to:

Create the structure and process for progressive companies in the broad range of ocean industries to collaborate in a leadership alliance

Identify cross-cutting issues for which there are business benefits to collaboration

Form cross-sectoral working groups and platforms that focus multi-industry efforts on these issues with targeted action plans and outputs
International, Cross-Sectoral *Business* Leadership Alliance

- Bringing ocean industries together, e.g. shipping, oil/gas, fisheries, aquaculture, tourism, offshore renewables, etc.
- Catalyzing leadership and collaboration in addressing ocean sustainability - “Corporate Ocean Responsibility”

**Goal**  A healthy and productive global ocean and its sustainable use, development and stewardship by a responsible ocean business community

**Creating business value for responsible companies**
- Access and social license for responsible ocean use
- Synergies and economies of scale in addressing issues
- Stability and predictability in ocean operations
# World Ocean Council: Members

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Sustainable Ocean Economy Leadership

1. Ocean Governance
   o Convention on Biological Diversity (CBD); Law of the Sea

2. Marine Spatial Planning (MSP)
   o EU; US; Australia, etc.

3. Operational Environmental Issues
   o Marine Invasive Species – ballast water, biofouling
   o Sound and Marine Life; Marine Mammal / Vessel Interactions
   o Port Reception Facilities / Marine Debris
   o Water Pollution/Waste Discharge

4. Regional Ocean Business Councils
   o Arctic; Mediterranean; Coral Triangle; Benguela?

5. Smart Ocean / Smart Industries
   o Data from Industry Ships/Platforms

6. Sea Level Rise/Extreme Weather Events
   o Port/coastal infrastructure adaptation
2. Marine Spatial Planning (MSP)

- Allows a more strategic, pro-active approach to planning
- Promotes rational use of marine space and resources and sustainable development of maritime regions
- Involves all stakeholders and maps their interests and uses
- Coordinates among sectors/users to achieve agreed upon goals and objectives
- Seeks to balance economic use and conservation
- Enables early identification of potential conflicts before considerable investment or damage has occurred
- Provides greater certainty in acceptable locations for different types of use
- Improves understanding and consideration of the cumulative effects of different activities
MSP in the US

- Implement coastal and marine spatial planning (CMSP)
- Create of nine regional planning areas/programs
WOC National Business Forum on MSP

Washington D.C., July 2011

- Create a clear industry understanding about MSP
- Examine how MSP has worked in the US and elsewhere and review the role of industry
- Define and examine the potential business impacts and benefits of MSP
- Determine how industry can optimize potential MSP benefits and minimize the impacts
- Ensure the ocean business community is fully informed of US CMSP process and plans
- Develop a coordinated business community strategy and action plan for engaging in US CMSP
- Ensure that US CMSP takes into account the viability of responsible ocean economic activities
3. Operational Environmental Issues

- Waste Discharge/Marine Debris/Water Pollution
  - Port Reception Facilities Working Group
  - Solid waste

- Marine Invasive Species
  - Biofouling Working Group
  - Ballast water

- Marine Sound
  - Marine Sound Working Group

- Marine Mammal Interactions
  - Ship strikes
Cross-sectoral business collaboration to bring together the range of marine industries in at a regional scale to address shared marine environmental challenges and opportunities

**Priority areas:**
- Arctic, Mediterranean, Coral Triangle
- *Benguela Current region?*

**Priority issues** may include:
- Improving marine science and monitoring
- Reducing inter-industry conflicts
- Reducing water pollution
- Preventing maritime accidents
- Avoiding the introduction of invasive species
- Reducing marine debris
WOC Arctic Business Leadership Council

- Create cross-sectoral business alliance on marine and coastal sustainable development in the Arctic
- Bring together the range of marine industries in region
- Build on initial industry contacts and network developed by Arctic Council and its working groups
- Develop ocean business community dialogue with AC Sustainable Development Working Group (SDWG)
- Tackle priority Arctic issues that can benefit from private sector engagement

WOC-Arctic Business Meetings (Reykjavik, Sept 2012)
- Arctic Business Leadership Council workshop (16 Sept)
- Business Dialogue with AC-SDWG (17 Sept)
5. Smart Ocean / Smart Industries

Ensure a wide range of industry vessels and platforms are:
• Providing routine, sustained, standardized information on the ocean and atmosphere
• Contributing to describing the status, trends and variability of oceanographic and atmospheric conditions
• Improving the understanding, modeling and forecasting of oceanic ecosystems, resources, weather, climate variability and climate change

Establish a program to:
• Expand the number of vessels and platforms that collect standardized ocean, weather and climate data
• Improve the coordination and efficiency of data sharing and input to national/international systems
• Build on “ships/platforms of opportunity” programs
International Ship/Platform Data Collection

Comprehensive
• Incorporates needs and opportunities from different industries
• Addresses ocean, weather and climate data needs

Scaleable
• Within industries
• Across industries
• Upgradeable over time

Entry Options
• Retrofit – existing vessels and platforms
• Newbuild

Cost-Efficient
• Synergies – within and between industries
• Economies of scale
Opportunities of Ships

Number of ships - by total and trade
as of October 2010

Bulk Carriers: 8,687
Container ships: 4,831
Tankers: 13,175
Passenger ships: 6,597

TOTAL: 50,054

Figures in brackets are numbers of ships, by sector.
Source: IHS Fairplay October 2010
Opportunities of Platforms

Number of oil/gas wells and rigs

Wells drilled in Gulf of Mexico: ~ 40,000
Deepwater wells drilled internationally: ~ 14000
Number of rigs internationally: ~ 8,000
US rigs/platforms: ~ 3,500; including 79 deepwater wells
Other Ship and Platform Opportunities

- Fisheries
- Offshore wind energy
- Ferries
- Aquaculture
- Wave/tidal energy
Smart Fishing Vessels

Workshop, 29 Sept, St John’s, World Seafood Congress

• Assemble fisheries industry data gathering experience.

• Develop common understanding of opportunities and constraints for fishing vessel data collection.

• Facilitate fishing industry learning from/collaborating with other ocean industries in data collection.

• Develop shared information on the technology and instrumentation available for use on fishing vessels.

• Identify priorities and quality assurance for fishing industry data collection.
Smart Ocean/Smart Industries: Next Steps

• Develop joint Industry/Science Steering Committee
• Define value proposition, rationale and feasibility for both industry and science community
• Inventory of existing ships/platforms of opportunity programs
• Define the “menu of options” for voluntary observations
• Define interface requirements for platforms / payload
• Explore and explain the principles and practice of open data access and the telemetry issues
• Develop Advisory Group for input from broader range of industry / science representatives
Thank You!

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