

# EMODnet for the BLUE ECONOMY

## SMART Ocean – SMART Industries

Ocean Observations from Commercial Vessels and Infrastructure

**Paul Holthus, CEO**  
**World Ocean Council**  
[paul.holthus@oceancouncil.org](mailto:paul.holthus@oceancouncil.org)  
[www.oceancouncil.org](http://www.oceancouncil.org)



The International Business Alliance  
for Corporate Ocean Responsibility

**10<sup>th</sup> Sustainable Ocean Summit**  
**(SOS 2024)**  
**Dates/Location TBD**

**2<sup>nd</sup> Global Blue Finance Summit**  
**(BlueFIN 2024)**  
**Dates/Location TBD**

WOC Global Headquarters: BARCELONA - WORLD LEADING INTERNATIONAL BLUE ECONOMY HUB

**WOC – the Global “Blue Economy” Business and Investment Organization**

# World Ocean Council (WOC)



## International, Cross-Sectoral Business Leadership Alliance, with HQ in Barcelona

- **Bringing together the global ocean private sector**, e.g. shipping, tourism, fisheries, aquaculture, offshore energy, ports, legal, insurance, investment, etc.
- **Catalyzing leadership, collaboration and action** for “Corporate Ocean Responsibility”  
Formal recognition by UN and business entities, e.g. UNESCO IOC, WMO, IHO, ISA, ICC
- **35,000+ in global network, 75+ members globally; 100’s of actively engaged companies**
- **Sustainable Ocean Summit (SOS)** - Only annual global, multi-industry gathering developed by and for the business community, focused on sustainable development
- **Global Blue Finance Summit** - Bringing industry, investors and innovators together

**Goal:** Healthy, productive global ocean and its sustainable use and stewardship by 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

**WOC – the Global “Blue Economy” Business and Investment Organization**

# WOC Partnerships and Formal Recognition



WORLD OCEAN COUNCIL

The International Business Alliance  
for Corporate Ocean Responsibility

**UNESCO Intergovernmental Oceanographic Commission (IOC) – Partnership Agreement**

**UN World Meteorological Organization (WMO) – MOU**

**Group on Earth Observations (GEO) – Accredited Partner**

**International Hydrographic Organization (IHO) – Official Observer**

**UN International Seabed Authority (ISA) – Accredited Observer**

**UN Convention on Biological Diversity (CBD) – Accredited to SBSTTAs and COPs**

**International Whaling Commission (IWC) – Accredited Observer**

**UN Framework Convention on Climate Change (UNFCCC) – Accredited to COPs**

**Ocean Climate Platform – Accredited Partner**

**China Belt and Road Network – Partner**

**International Standards Organization (ISO) – Underwater Acoustics Sub-Committee**

**Global Business Alliance for Sustainable Dev't, Int'l Chamber of Commerce (ICC) – Member**

**Federation of Indian Chambers of Commerce and Industry (FICCI) – MOU**

**UN Office on Least Developed Countries, Landlocked Developing Countries and SIDS (UN-OHRLLS) – Working Partner**



***WOC: Only ocean industry organization invited to address UN General Assembly***

# Global Ocean Industry Leadership:

## 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

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 existing “ships/platforms of opportunity” programs



# Opportunities of Ships

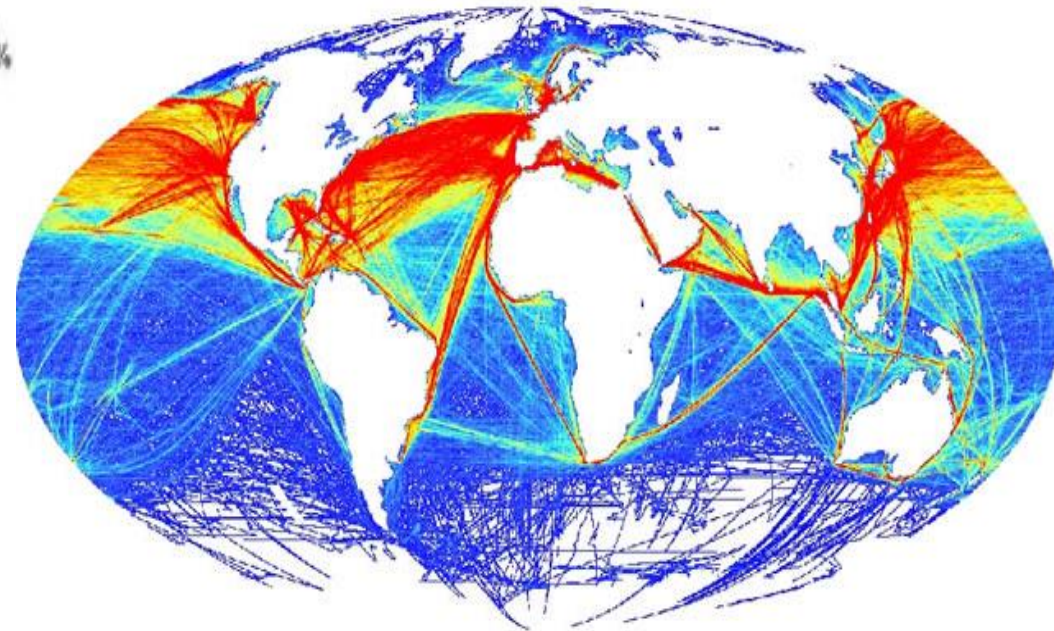
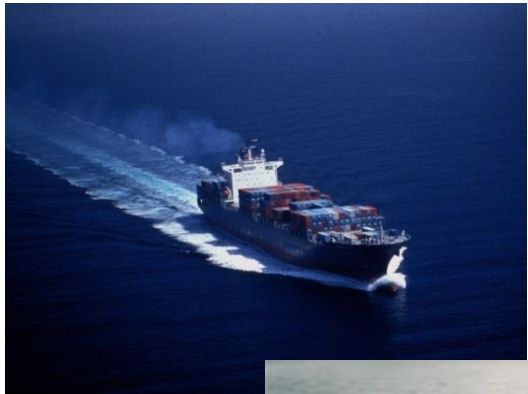
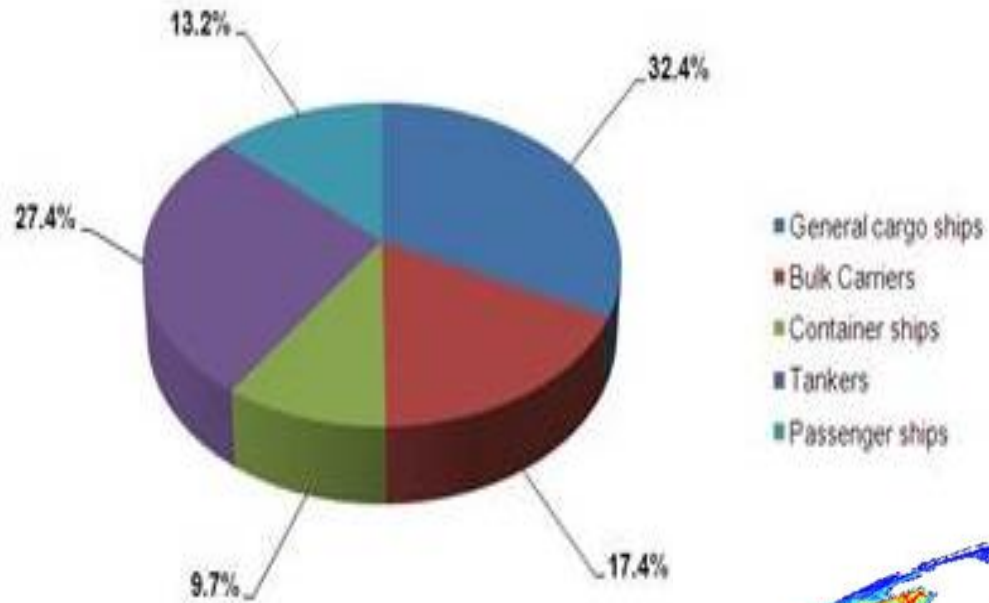


WORLD OCEAN COUNCIL

The International Business Alliance  
for Corporate Ocean Responsibility

## 50,054 ships (Oct 2010)

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

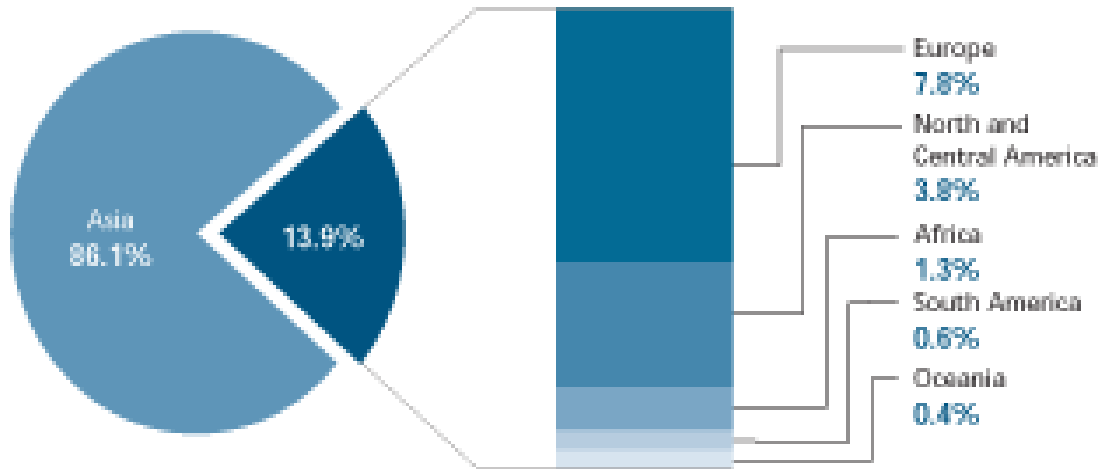


# Opportunities of Fishing Vessels

- 3-4 million vessels
- Many operating in less well know ocean areas, e.g. Southern Ocean
- Over 85% of world fishing fleet is in Asia



Distribution of decked fishing vessels by continent.



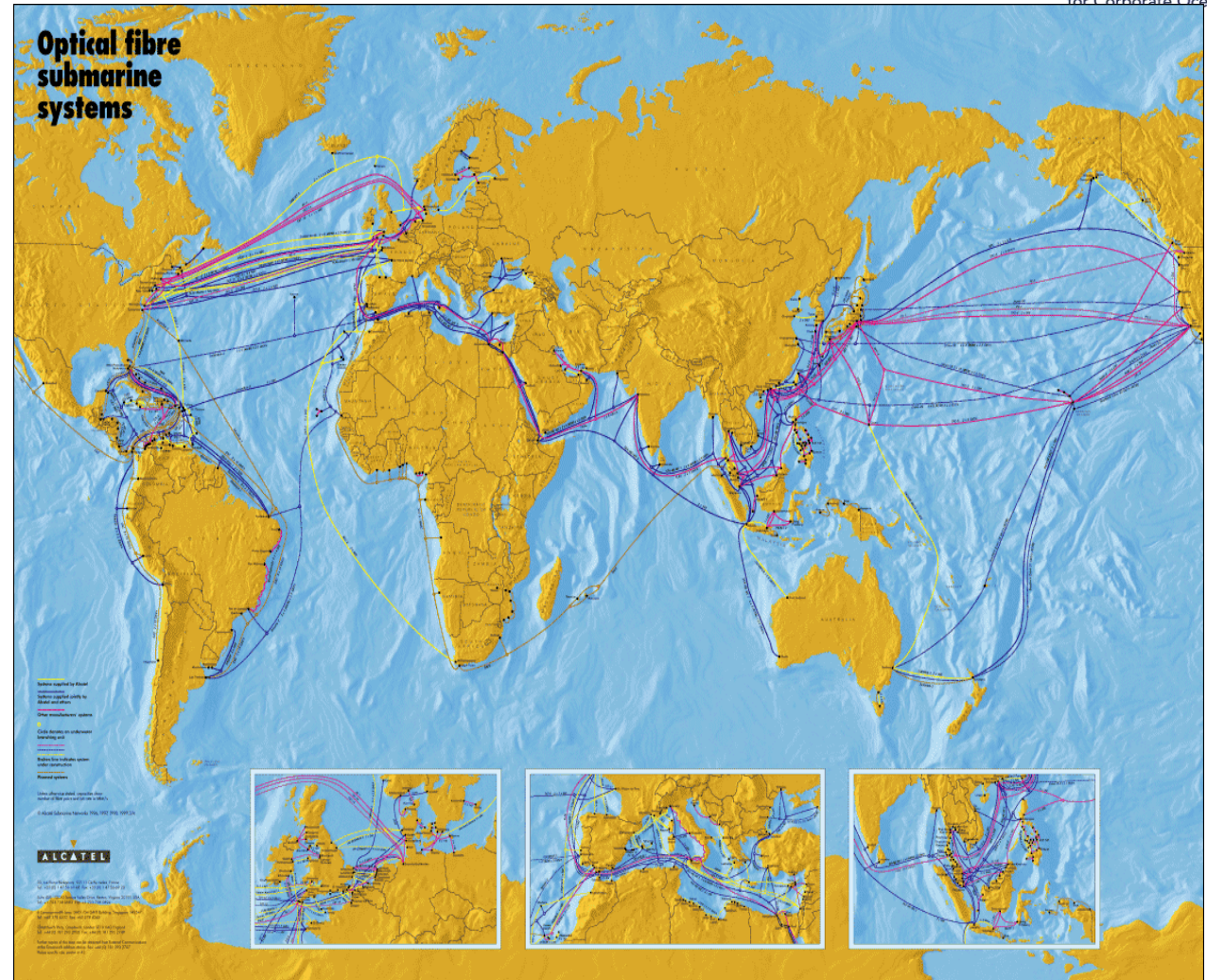


# Opportunities of Submarine Cables



The International Business Alliance  
for Corporate Ocean Responsibility

- More than 1.2 million km of telecom cables
- Subsea power cables increasing for grids, platforms and renewables



# Other Ship and Platform Opportunities



WORLD OCEAN COUNCIL

The International Business Alliance  
for Corporate Ocean Responsibility

## Oil and gas



## Aquaculture



## Ferries



## Offshore wind energy



## Wave/tidal energy





# International Ship/Platform Data Collection



The International Business Alliance  
for Corporate Ocean Responsibility

## **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
- New builds

## **Cost-Efficient**

- Synergies – within and between industries
- Economies of scale

# SMART Ocean-SMART Industries: How it works



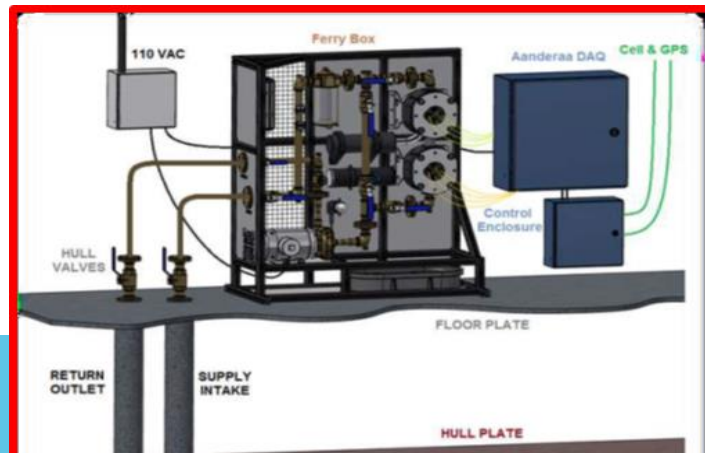
- **WOC engages scientific institutions to identify:**
  - Priority data collection needs and areas and appropriate technology
- **WOC identifies and recruits companies:**
  - With vessels/platforms operating in the priority areas
  - Interested/capable of hosting/deploying instruments or hosting scientists
- **WOC engages with the technology developers/providers to:**
  - Verify the appropriate technology, costs, deployment considerations, etc.
  - Identify technology/business development opportunities
- **WOC instigates and facilitates working relationship** between the company, the scientific institution and the technology provider
- **WOC monitors, coordinates and supports** interaction among the parties
- **WOC ensures industry data collection efforts are efficient, cost effective and contribute to national and international public science programs**

# How Companies Participate

- Engage in the WOC SMART Ocean-SMART Industries program
- Evaluate the information collecting/sharing that would be a good fit for the company, e.g. ocean, weather or climate data

There are options to participate, e.g.:

- Deploying instruments
- Hosting sensors on vessels
- Installing instruments to test water from engine intake
- Storing and sharing bathymetric data
- Sharing data from previous studies, EIAs, permits, etc.

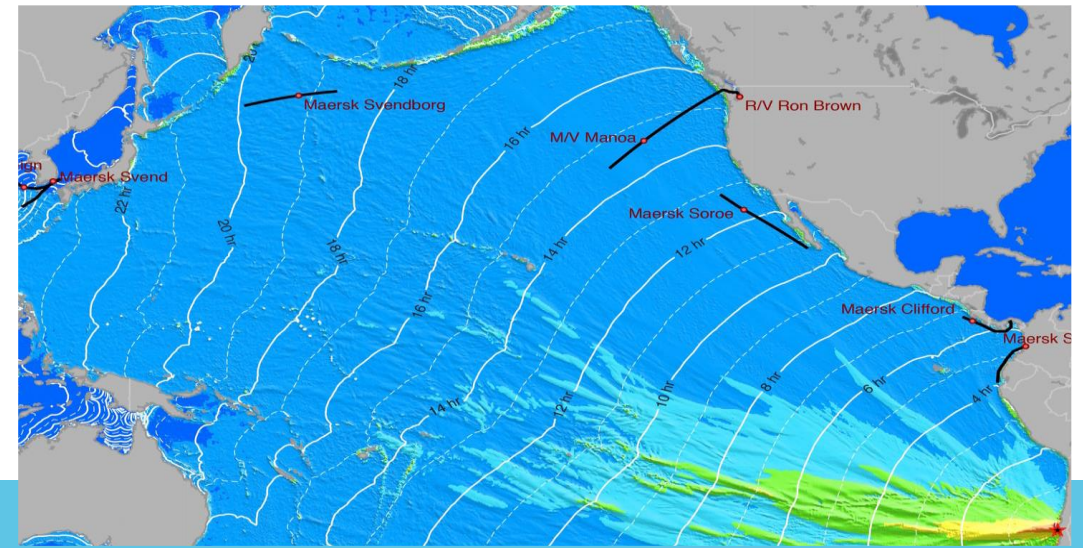




# SMART Ocean-SMART Industries example

## *Project: Installing Tsunami Detection Instruments on Ships Traversing Pacific*

- University of Hawaii scientists approach WOC SO-SI program for help
- WOC reaches out to shipping industry with information and call to assist
- Within weeks, Maersk and Matson volunteer 8 ships for an initial 2 year project
- Within a few months, ships are equipped with prototype real-time geodetic GPS systems and satellite communications links
- Data begins streaming via satellite to a land-based data center for processing and analysis for tsunami signals in a ground-breaking, far-reaching pilot project



# SMART Ocean-SMART Industries: Priorities (1)



## WOC Continues engaging leadership companies

- **Facilitate company's making a commitment to:**
  - **SDG 14.a – “Increase ocean knowledge”**
  - **U.N. Decade of Ocean Science for Sustainable Development**
- **Identify startup level participation**, e.g. on one vessel, less complicated data types
- **Evaluate fleet level potential to participate in data collection**

## Develop pilot projects to put “SMART Industries” to work with companies

- Key parameters, e.g. ocean pH, bathymetry, microplastics, ocean CO2 removal
- Extreme weather or ocean events, e.g. tsunamis
- **Regional scaling up, e.g. Pacific, Caribbean, Arctic, Southern Ocean**

## Continue to build overall SMART Ocean-SMART Industries program

- Inventory existing ships / platforms of opportunity programs
- Define the “menu of options” for voluntary observations
- Develop principles, practice and platform for industry data sharing

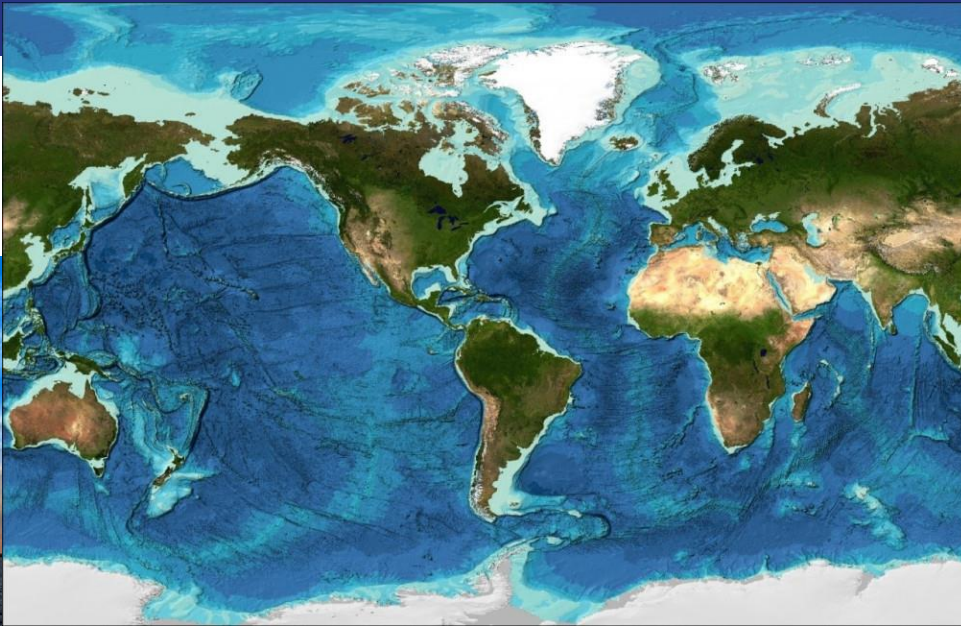
## Develop technology packages and options

- Make it easy for companies to get involved ('plug and play')
- Create more standardized instrumentation to facilitate scaling up within a company fleet and among companies and sectors
- Improve the instrumentation's efficiency in energy use, data transmission, space requirements, maintenance needs, etc.

## Continue to build overall SMART Ocean-SMART Industries program

- Inventory existing ships / platforms of opportunity programs
- Define the "menu of options" for voluntary observations
- Develop principles, practice and platform for industry data sharing





**Paul Holthus, CEO**  
**World Ocean Council**  
**paul.holthus@oceancouncil.org**  
**www.oceancouncil.org**

**Thank You !**



The International Business Alliance  
for Corporate Ocean Responsibility

**10th Sustainable Ocean Summit**  
**(SOS 2024)**  
**Dates/Location TBD**

**2nd Global Blue Finance Summit**  
**(BlueFIN 2024)**  
**Dates/Location TBD**

**WOC Global Headquarters: BARCELONA - WORLD-LEADING INTERNATIONAL BLUE ECONOMY HUB**

**WOC – the Global “Blue Economy” Business and Investment Organization**