

# Blue Growth Data Challenge: Engaging Industry – **WORLD OCEAN COUNCIL** *Smart Ocean-Smart Industries*

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WORLD OCEAN COUNCIL  
The International Business Alliance  
for Corporate Ocean Responsibility



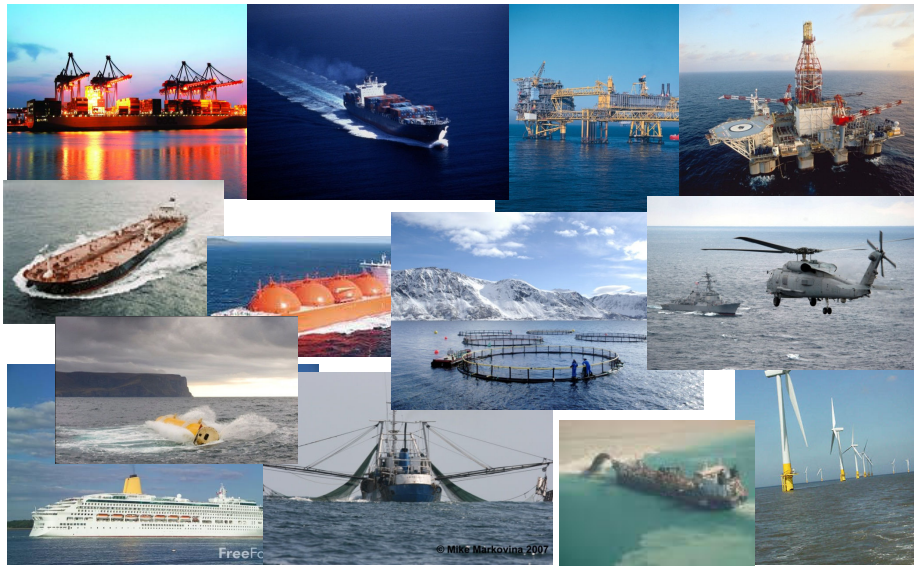
## Global Ocean Business Community

### Leadership and Collaboration in Sustainable Development, Science and Stewardship

- Private sector is a fundamental, essential partner in ocean sustainable development
- Ocean sustainable development and cannot succeed without constructive collaboration with those undertaking ocean economic activities, i.e. ocean business community
- Many companies are making significant efforts and progress in responsible ocean economic activity
- Leadership companies are increasingly working on international, multi-sectoral ocean sustainability leadership through the World Ocean Council



## The Multiple Use Ocean



## Growing Ocean Use

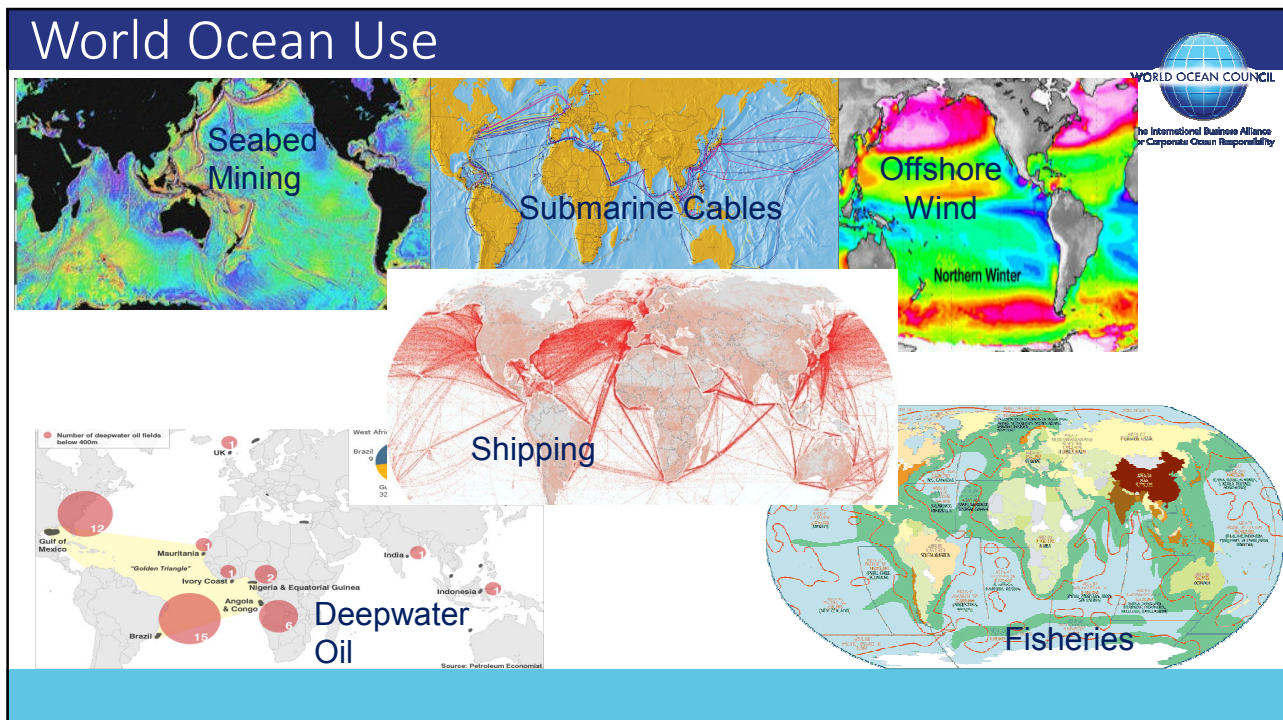


- Shipping
- Mariculture/Aquaculture
- Offshore oil and gas
- Mining / Seabed mining
- Fisheries
- Cruise and coastal tourism
- Dredging
- Submarine cables/pipelines
- Offshore wind energy
- Wave/tidal energy
- Ports/marinas
- Recreational boating/use
- Desalination
- Navy/military use
- Carbon sequestration

### Expanding

- Kinds of use
- Levels of activity
  - Duration
  - Intensity
  - Frequency
- Location of activity
  - Geographical Extent
  - Frequency

- Finance/Investment
- Insurance
- Maritime Legal



## The Ocean Business Community Challenge

- **Ocean industries require access and social license** to use ocean space and resources
  - Many of the **critical issues** creating impacts and affecting access and social license are **cross-cutting or cumulative**
  - Sustaining ocean health and productivity requires **responsible use** and stewardship **by all users**
  - Best **efforts by a single company**, or an entire industry sector, are **not enough** to secure ocean health
  - Ocean **industries will benefit from collaboration** with other sectors to **create synergies** and **economies of scale** to address impacts and ensure access and social license
  - **Need structure/process for leadership and collaboration**
- WORLD OCEAN COUNCIL  
The International Business Alliance for Corporate Ocean Responsibility

# World Ocean Council



## International, Cross-Sectoral Business Leadership Alliance

- **Bringing ocean industries together**, e.g. shipping, oil/gas, fisheries, aquaculture, tourism, offshore renewables, etc.
- **Catalyzing private sector leadership and collaboration**
  - Advancing “Corporate Ocean Responsibility”
  - Communicating responsible ocean industry/economy
- 70+ members globally; 100’s of actively engaged companies; 35,000+ in global network
- Research, scientific and academic institution members as well

**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

# World Ocean Council: Members



|   |   |   |
|---|---|---|
| A.P. Moller-Maersk A/S                          | Heidmar, Inc.                                 | Oldendorff Shipping GmbH & Co. KG       |
| Agawa Partners                                  | Helix Media                                   | OLRAC SPS                               |
| Almi Tankers S.A.                               | Hepburn BioCare                               | Orange Marine                           |
| Arctia Shipping                                 | Holman Fenwick Willan LLP                     | Planet OS (formerly Marinexplore)       |
| ANCORS  | HR Wallingford                                | Principle Power                         |
| Aquarium de Paris - Cinéaqua                    | IHC Mining                                    | Qikiqtaaluk Corporation                 |
| Baird Publications                              | Inmarsat                                      | Resolute Marine Energy                  |
| BHM Penlaw                                      | Int’l Ass’n of Geophysical Contractors (IAGC) | RightShip                               |
| Blank Rome                                      | Int’l Chamber of Shipping (ICS)               | Royal Greenland A/S                     |
| Cape Breton University                          | JASCO Applied Sciences                        | Sanford Limited                         |
| CESI- Engineering & Environment Division        | L3 MariPro                                    | Scottish Marine Institute (SAMS)        |
| China Navigation Company/Swire Pacific Offshore | Liquid Robotics                               | Southall Environmental Associates (SEA) |
| Class NK  | Lloyd’s Register                              | Stena Bulk AB                           |
| Cruise Lines International Association (CLIA)   | Louisbourg Seafoods                           | SubCtech GmbH                           |
| CSA Ocean Sciences Inc.                         | Marine Acoustics, Inc.                        | Sunburst Sensors                        |
| DHI   | Marine Assets Corporation                     | Tai Chong Cheang (TCC) Steamship Co. HK |
| exactEarth                                      | Maritime Executive                            | Technip                                 |
| ESRI  | Memorial University – Marine Institute        | Thordon Bearings Inc.                   |
| FCG ANZDEC                                      | Mitsubishi Heavy Industries                   | TierraMar Consulting                    |
| FOB   | Nautical Institute                            | Twin Dolphins                           |
| Global Ocean Consulting, LLC                    | Nautilus Minerals, Inc.                       | University of Texas Marine Science Inst |
| Gulf Agency Company Ltd (GAC)                   | N America Marine Envi’t Protection Ass’n      | Vieira de Almeida & Associates (VdA)    |
| Heerema Marine Contractors Nederland SE         | Ocean Nourishment                             | Windward Ltd.                           |
|   |   | Woodside Energy                         |

## WOC Partnerships and Formal Recognition



- **UNESCO Intergovernmental Oceanographic Commission (IOC)** – MOU
- **International Hydrographic Organization (IHO)** – Official Observer
- **Group on Earth Observations (GEO)** – Accredited Partner
- **International Seabed Authority (ISA)** – Accredited Observer
- **Convention on Biological Diversity (CBD)** – Accredited to attend SBSTTAs and COPs
- **International Whaling Commission (IWC)** – Accredited Observer
- **UN Framework Convention on Climate Change (UNFCCC)** – Accredited to attend COPs
- **International Standards Organization (ISO)** – Underwater acoustics Sub-Committee
- **Global Business Alliance for Sustainable Dev't of Int'l Chamber of Commerce (ICC)** – Member
- **Ocean Climate Platform** – Accredited Partner
- **China Belt and Road Network** – Partner

## WOC: Global Ocean Industry Leadership



### Major Cross-Cutting Framework Areas:

- **Sustainable Development Goals (SDGs)** for the Ocean Business Community
- Ocean Investment Platform
- Young Ocean Professionals Network
- Sustainable Ocean Summit
- Regional Ocean Leadership Groups

## WOC Program and Theme Areas



- **Improving Ocean Knowledge**

- Smart Ocean / Smart Industries:

- Data from Industry Vessels/Platforms of Opportunity

- **Food Security**

- Sustainable fisheries/reduced IUU fishing
  - Sustainable aquaculture

- **Disaster Risk Reduction**

- Port/coastal infrastructure adaptation and resilience

- **Energy Decarbonization**

- Ocean renewable energy

## WOC Program and Theme Areas (cont.)



- **Marine Pollution Reduction**

- Plastics/Port Reception Facilities
  - Biofouling/invasive species, Marine sound

- **Marine Biodiversity Conservation**

- Marine protected areas

- **Ocean Governance, Policy and Planning**

- UNCLOS/BBNJ, Convention on Biological Diversity ...
  - Marine Spatial Planning, Ocean zoning

- **Climate Change**

- Ocean acidification

## 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

Establish a program to:

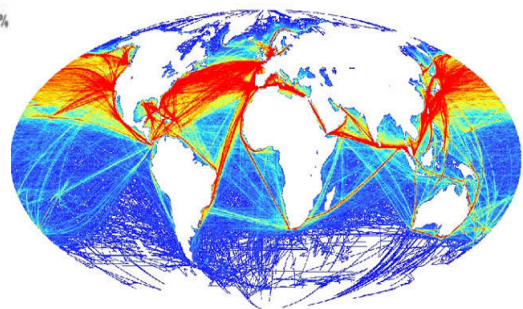
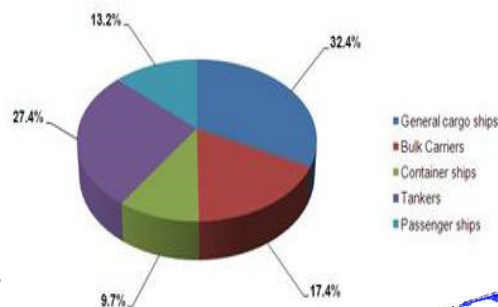
- **Expand the number of vessels and platforms** that collect standardized ocean, weather and climate data
- **Improve the coordination and efficiency of data sharing** and input to national/international systems
- Build on “ships/platforms of opportunity” programs

## Opportunities of Ships



**50,054 ships (Oct 2010)**

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



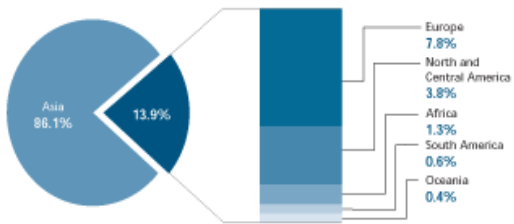
# Opportunities of Fishing Vessels



- ~1.3 million vessels
- Over 85% of world's fishing fleet is in Asia



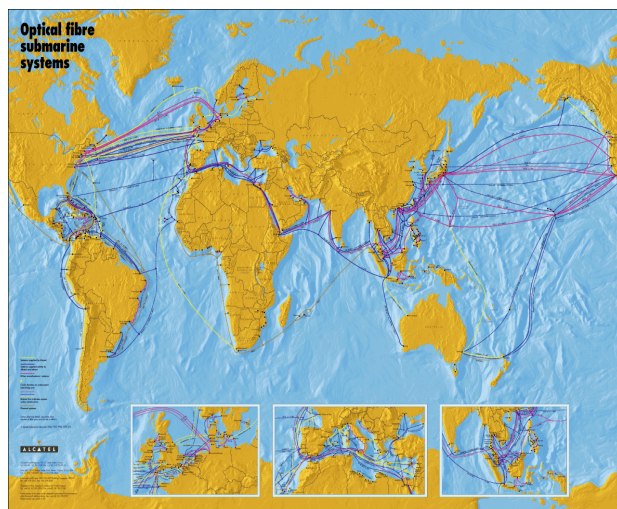
Distribution of decked fishing vessels by continent



# Opportunities of Submarine Cables



- More than 1 million km of telecom cables
- Subsea power cables increasing for grids, platforms and renewables





## Other Ship and Platform Opportunities



Oil and gas



Aquaculture



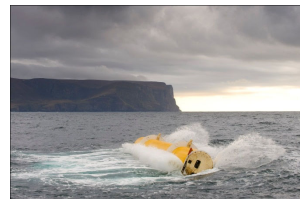
Ferries



Offshore wind energy



Wave/tidal energy



## 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
- New builds

### Cost-Efficient

- Synergies – within and between industries
- Economies of scale

## Smart Ocean-Smart Industries: How it works



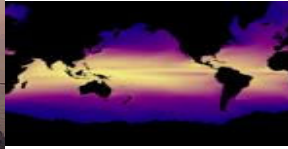
### WOC...

- Engages scientific institutions to identify:
  - Priority data collection needs and areas
  - Appropriate, cost-effective, ship-suitable technology
- Identifies and recruits companies:
  - With vessels/platforms operating in the priority areas
  - Interested/capable of hosting/deploying instruments or hosting scientists
- Instigates and facilitates working relationship between the company and the scientific institution
- Monitors, coordinates and supports interaction between company and scientific institution
- Ensures industry data collection efforts are efficient, cost effective and contribute to national and international public science programs

## Smart Ocean-Smart Industries: Next Steps



- **Develop pilot projects to put “Smart Ocean-Smart Industries” to work**
  - Country or company level focus, e.g. fleet level
  - Regional, e.g. Arctic
  - Parameters, e.g. ocean acidity, bathymetry
  - Extreme weather or ocean events, e.g. tsunamis
- Define value proposition / rationale for industry and science
- Inventory existing ships / platforms of opportunity programs
- Define the “menu of options” for voluntary observations
- Define interface requirements for platforms / payload
- Develop the principles, practice and platform for industry data sharing and access
- Increase investment on ocean observations technology through the WOC Ocean Investment Platform



*Thank you*



## **WOC 5th Sustainable Ocean Summit (SOS) 29 Nov-1 Dec 2017, Halifax, Canada**

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