

SMART Ocean-SMART Industries: Ocean Industry Opportunities for Seabed Data Collection



The International Business Alliance
for Corporate Ocean Responsibility

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WOC 8th
Sustainable Ocean
Summit (SOS)
2020 Dates and
Location TBD

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

World Ocean Council: Leadership & Collaboration



The International Business Alliance
for Corporate Ocean Responsibility

World Ocean Council: International, Cross-Sectoral Business Leadership Alliance

- **WOC: Bringing ocean industries together**, e.g. shipping, fisheries, aquaculture, tourism, oil/gas, offshore renewables, ports, investment, etc.
- **WOC: Catalyzing private sector leadership and collaboration in...**
 - Advancing “Corporate Ocean Responsibility”
 - Implementing responsible, sustainable ocean development
- **WOC: 75+ members worldwide; 35,000+ in global network**

WOC Goal: Healthy, productive global ocean and its sustainable use and stewardship by responsible ocean business community

WOC: 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 Partnerships and Formal Recognition



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



WOC: First ocean industry organization invited to address UN General Assembly

Cross-Cutting Framework for Leadership, Collaboration and Action:

Sustainable Development Goals (SDGs)

- Coordinated, proactive business community efforts to develop ocean industry SDG targets and indicators

Ocean Investment Platform

- A forum for industries, innovators, investors to accelerate investment in ocean sustainable development

Young Ocean Professionals Network

- Bringing together future leaders in Corporate Ocean Responsibility from across the sectors worldwide

Regional Ocean Industry Leadership and Collaboration

- Arctic, Mediterranean, W. Indian Ocean, etc.

Sustainable Ocean Summit (SOS)

- The only annual global, multi-industry gathering developed by and for the business community, focused on sustainable development
(7th SOS, Paris, 20-22 Nov, 2019)



SDG 14: The Ocean SDG

“Conserve and sustainably use the oceans, seas and marine resources for sustainable development”



Targets:

- Preventing and significantly reducing marine pollution of all kinds – by 2025
- Sustainably managing and protecting marine and coastal ecosystems to avoid significant adverse impacts – by 2020
- Conserving at least 10% of coastal and marine areas – by 2020.
- Minimizing and addressing the impacts of ocean acidification – no target date
- Restoring fish stocks by regulating harvesting, ending overfishing, illegal, unreported and unregulated (IUU) fishing – by 2020.
- Prohibiting fisheries subsidies which contribute to overcapacity, overfishing, and IUU fishing, and refraining new subsidies – by 2020.
- Increasing the economic benefits to small island developing states and least developed countries from the sustainable use of marine resources – by 2030.
- **Increase scientific knowledge, develop research and transfer marine technology**

World Ocean Council Programs (1)

- **Improving Ocean Governance, Policy and Planning**
 - UNCLOS/BBNJ, UNFCCC, SDGs, Convention on Biological Diversity ...
 - Marine Spatial Planning
 - Inter-industry Conflicts/Synergies
- **Reducing Anthropogenic Impacts**
 - Biofouling/Invasive species
 - Marine sound
 - Plastics/Port Reception Facilities
- **Conserving Marine Biodiversity**
 - Marine protected areas
 - Marine mammal 'Ship strikes'
- **Ensuring Food Security**
 - Sustainable fisheries/reduced IUU fishing
 - Sustainable aquaculture



World Ocean Council Programs (2)

- **Improving Ocean Knowledge (SDG14a)**

- SMART Ocean - SMART Industries:

- Data collection from Industry “Ships/Platforms of Opportunity”

- **Reducing Disaster Risk**

- Port/coastal infrastructure adaptation and resilience

- **Addressing Climate Change**

- Ocean NETs: Negative Emissions Technologies in the ocean
 - Ocean acidification

- **Advancing Low Carbon Energy from the Sea**

- Ocean-based renewable energy



Increase Ocean Knowledge

WOC SMART Ocean-SMART Industries (SO-SI) Program



Ensure a **wide range of industry vessels and platforms** are:

- **Providing routine, sustained, standardized information** on 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

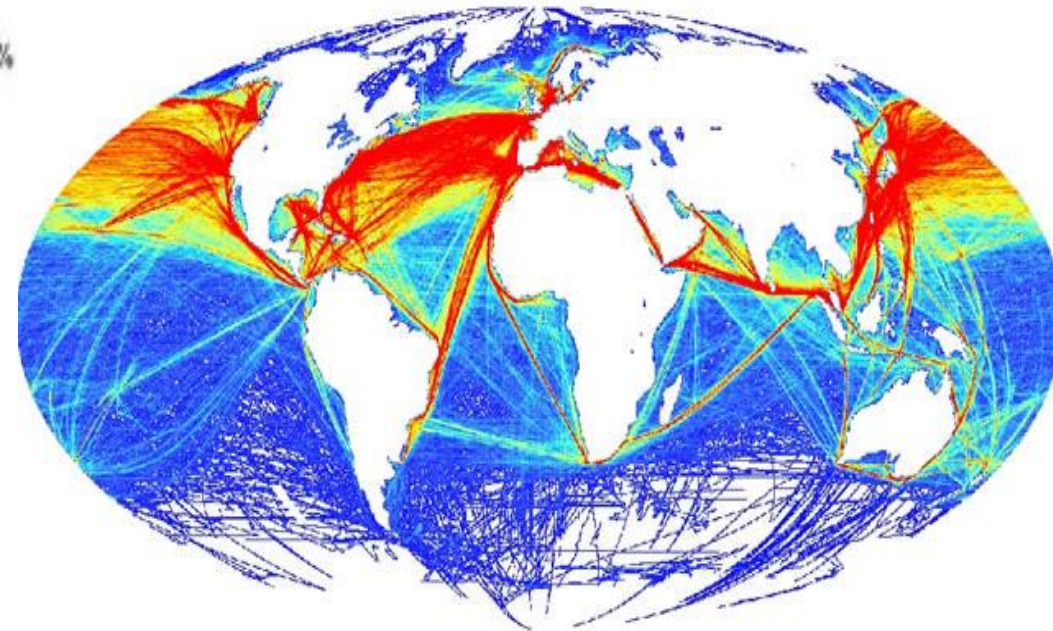
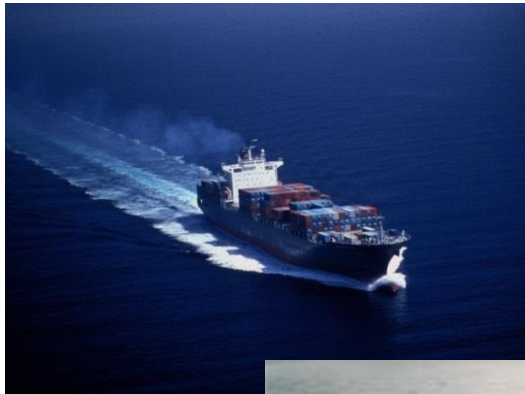
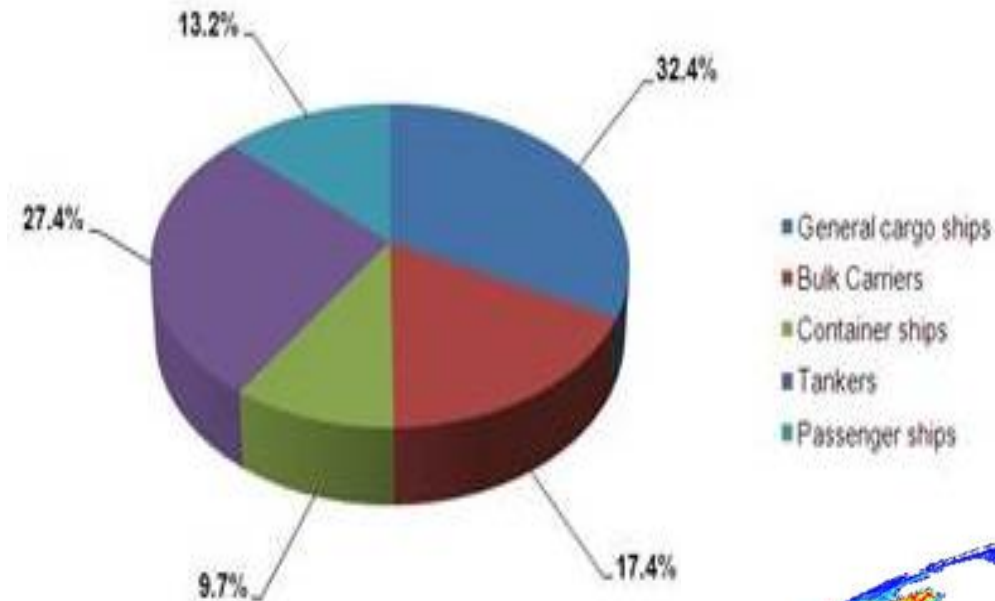
The SO-SI program is working to:

- **Foster, facilitate and broker interaction between scientists needing data and companies with vessels and platforms** that could collect data
- **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 and existing programs

Opportunities of Ships

50,054 ships (Oct 2010)

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



Other Ship and Platform Opportunities

Oil and gas



Fisheries



Aquaculture



Ferries



Offshore wind energy



Wave/tidal energy



SMART Ocean-SMART Industries: How it works



WOC...

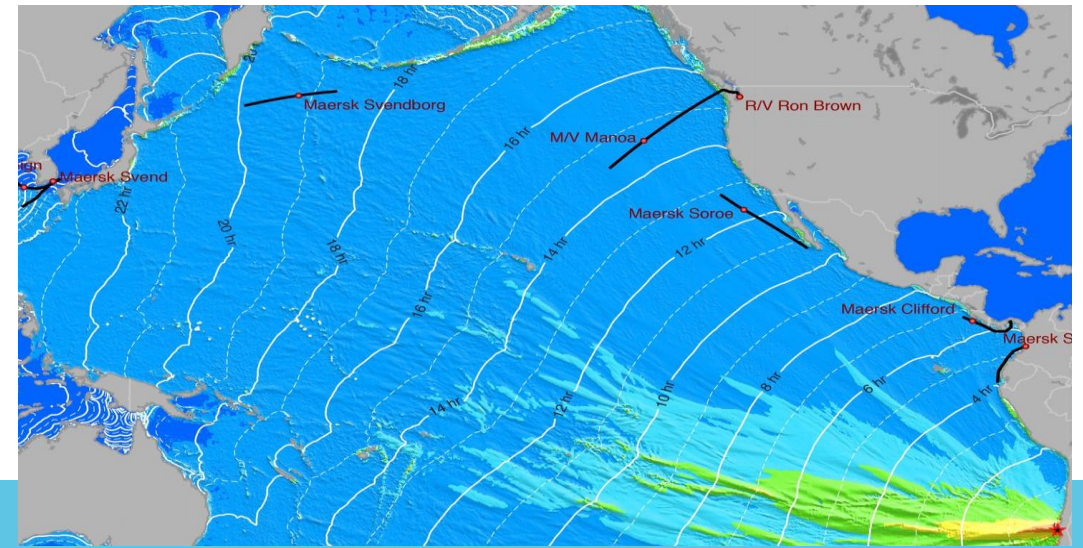
- Engages scientific institutions/organizations to identify:
 - Priority data collection needs and areas
 - Appropriate, cost-effective, ship-suitable technology
- Identifies and recruits companies:
 - With vessels/platforms operating in the priority areas
 - Interested/capable of hosting instruments
- 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

WOC SMART Ocean-SMART Industries at work



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: Next Steps

- **Continue to develop pilot projects to put “Smart Industries” to work**
 - Country or company level focus, e.g. coastal resort company
 - Regional, e.g. Arctic
 - **Parameters, e.g. bathymetry**
 - Extreme weather or ocean events, e.g. hurricanes, tsunamis
- Define value proposition / rationale for industry and science
- Inventory existing facilities, ships or 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
- Continue convening SMART Ocean - SMART Industries sessions at annual Sustainable Ocean Summit

WOC and IHO/GEBCO/CSBWG/Seabed 2030



Overall:

- Communications with IHO/GEBCO/CSBWG/Seabed 2030 for many years
- Participation in key IHO/GEBCO/CSBWG/Seabed 2030 events
- Meetings with key individuals to develop basis and priorities for collaboration
- IHO Observer Accreditation 2016
- MOU with Seabed 2019

Areas for collaboration:

- Include CSB in WOC SMART Ocean-SMART Industries program development
- Develop seabed mapping outreach presentation for industry
- Include CSB as part of broader in WOC presentations to industry
- Identify industry events for:
 - WOC to make dedicated CSB presentation
 - WOC and partners to organize CSB seminars or workshops
- Develop sector specific awareness raising and guidance materials
- Include CSB sessions in annual Sustainable Ocean Summit (at per SOS 2019)

WOC SOS 2019: Seabed 2030 Session

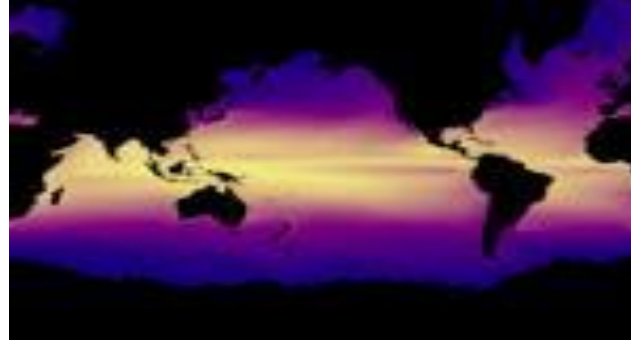


Seabed 2030: Accelerating Ocean Industry Leadership on Global Seafloor Mapping

- ***What is Seabed 2030, how is it important to the Ocean Business Community and sustainable development and how does it relate to the World Ocean Council's Smart Oceans – Smart Industries Ocean Platform?***
- ***How can ocean industry operators share existing bathymetric data to support improving seabed knowledge and mapping and/or collect and contribute crowdsourced bathymetry data to Seabed 2030?***
- ***What are the technologies, procedures and practices for collecting new bathymetric data that can contribute to Seabed 2030?***

Chair: Rob Adams, Senior Vice President, New Ventures, PGS

Panel: - Helen Snaith, Head, Seabed 2030 Global Centre, British Oceanographic Data Centre, National Oceanography Centre, UK
- Evert Flier, Norwegian Mapping Authority Hydrographic Service; Member, CSBWG, IHO
- David Millar, Government Accounts Director, Americas, Fugro
- Paul Holthus, CEO, World Ocean Council (WOC)



WOC 8th Sustainable Ocean Summit (SOS)

Dates and Location to be Determined

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