

Strengthening SIDS- Private Sector Partnerships: Advancing the SIDS GBN through an OHRLLS-WOC Partnership

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The International Business Alliance
for Corporate Ocean Responsibility

HOW ? By working with and through a global ocean/coasts/islands business leadership organization that...

- Is a unique, private sector boundary/intermediary organization
- Brings together a global, multi-industry leadership alliance on implementation
- Has as its core mission to work with industry on sustainable development
- **Knows the business community** and has the working relationships with industry:
 - at individual, company and/or sector level
 - at national, regional and/or global scale
- **Knows the sustainable development issues** and how they relate to industry
- **Provides long term commitment** to engaging the business community
- **Is constantly expanding** its international ocean business network of companies informed and engaged on sustainable development, science and stewardship
- **Is a credible 3rd party business organization known and respected by industry and will be involved in ocean sustainable development over the long term**

WHY? A well-developed ocean/coasts/islands business leadership organization can advance SIDS sustainable development by...

- **Serving as the portal and bridge to the entire diverse global ocean/coasts/islands business community**
- **Identifying and involving leadership companies** and industry organizations from a comprehensive network to participate in programs and projects
- Eliciting industry ideas and input early on, e.g. identifying priorities, designing projects, engaging additional sectors and companies, etc. - and then getting to work
- Bringing private sector partners together to develop and implement projects
- **Establishing the institutional basis for continued, sustained interaction with the ocean/coasts/islands business community**, e.g. identifying additional companies
- Developing specific, targeted workshops and seminars with industry
- **Identifying and facilitating access to where the global ocean/coasts/islands private sector is gathering**, e.g. the annual WOC *Sustainable Ocean Summit*

The Multiple Use Ocean/Coasts/Islands



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1. Direct Ocean/Coast/Island Sectors

- Industries that depend on the ocean/coasts/islands for the extraction or production of goods (living, non-living, energy) and the provision of services (transport, tourism, etc.)

2. Ocean/Coast/Island Sector 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/Coast/Island Support “Infrastructure”

- Insurance, finance, legal and other essential services that enable ocean industries to operate



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

- Finance/Investment
- Insurance
- Maritime Legal

Expanding...

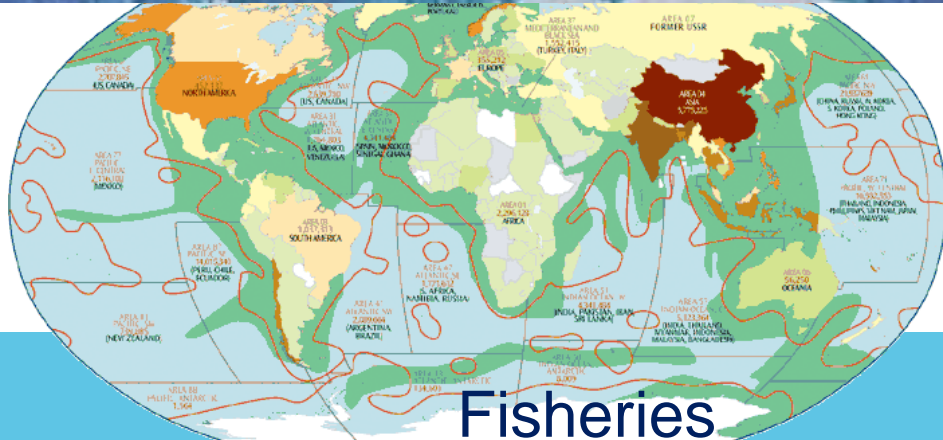
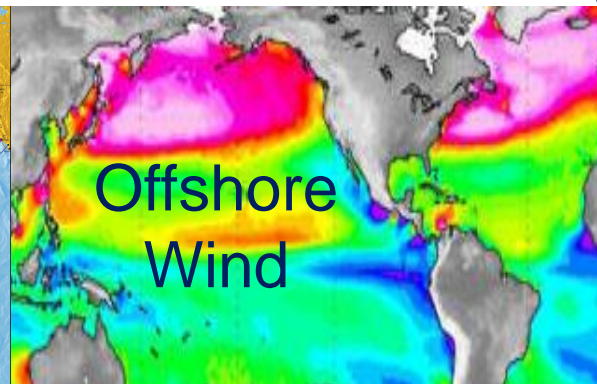
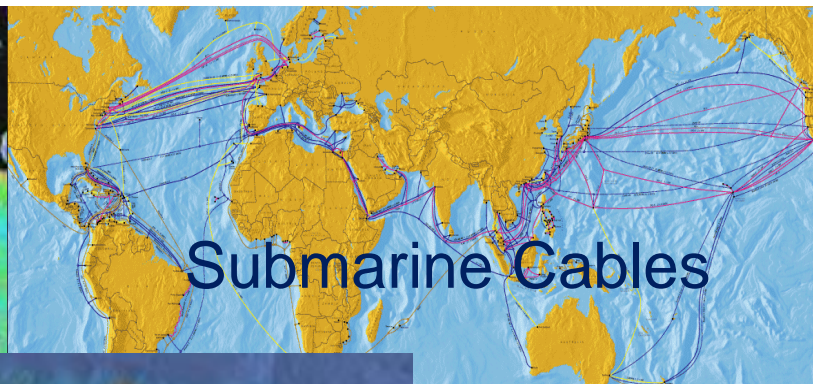
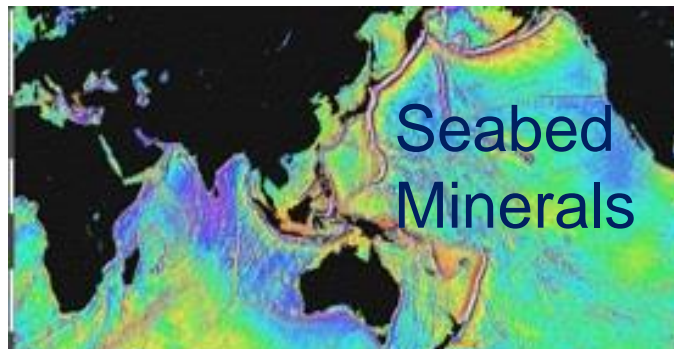
- Kinds of use
- Levels of activity
 - Duration
 - Intensity
 - Frequency
- Location of activity
 - Geographical Extent
 - Frequency

Global Ocean/Coasts/Islands Economic Activity



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World Ocean Council: Leadership & Collaboration



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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

World Ocean Council: Members



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A.P. Moller-Maersk A/S

Agawa Partners

Almi Tankers S.A.

Arctia Shipping

ANCORS

Aquarium de Paris - Cinéaqua

Baird Publications

BHM Penlaw

Blank Rome

Cape Breton University

CESI- Engineering & Environment Division

China Navigation Company/Swire Pacific Offshore

Class NK

Cruise Lines International Association (CLIA)

CSA Ocean Sciences Inc.

DHI

exactEarth

ESRI

FCG ANZDEC

FOB

Global Ocean Consulting, LLC

Gulf Agency Company Ltd (GAC)

Heerema Marine Contractors Nederland SE

Heidmar, Inc.

Helix Media

Hepburn BioCare

Holman Fenwick Willan LLP

HR Wallingford

IHC Mining

Inmarsat

Int'l Ass'n of Geophysical Contractors (IAGC)

Int'l Chamber of Shipping (ICS)

JASCO Applied Sciences

L3 MariPro

Liquid Robotics

Lloyd's Register

Louisbourg Seafoods

Marine Acoustics, Inc.

Marine Assets Corporation

Maritime Executive

Memorial University – Marine Institute

Mitsubishi Heavy Industries

Nautical Institute

Nautilus Minerals, Inc.

N America Marine Envi't Protection Ass'n

Ocean Nourishment

Oldendorff Shipping GmbH & Co. KG

OLRAC SPS

Orange Marine

Planet OS (formerly Marinexplore)

Principle Power

Qikiqtaaluk Corporation

Resolute Marine Energy

RightShip

Royal Greenland A/S

Sanford Limited

Scottish Marine Institute (SAMS)

Southall Environmental Associates (SEA)

Stena Bulk AB

SubCtech GmbH

Sunburst Sensors

Tai Chong Cheang (TCC) Steamship Co. HK

Technip

Thordon Bearings Inc.

TierraMar Consulting

Twin Dolphins

University of Texas Marine Science Inst

Vieira de Almeida & Associates (VdA)

Windward Ltd.

Woodside Energy

WOC Partnerships and Formal Recognition

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



Cross-Cutting Framework Areas for Leadership and Collaboration:

- **Sustainable Development Goals (SDGs) for the Ocean Business Community**
- **Ocean Investment Platform**
- **Digital Ocean / Big Ocean Data / Ocean Cloud**
- **Young Ocean Professionals Network**
- **Regional Ocean Leadership Groups**
- **Sustainable Ocean Summit (SOS)**
(6th SOS, Hong Kong, 14-16 Nov, 2018)



2015

- Inform ocean business community about SDGs (ongoing)
- Analyze SDGs re ocean industries (report completed)

2016

- Begin developing draft targets/indicators with/for ocean business community
- Ocean SDG Targets for Business: *WOC Sustainable Ocean Summit, Rotterdam*

2017

- Develop draft targets/indicators with/for ocean business community
- UN global event Ocean/SDG 14 conference (5-9 June)
 - *WOC partnership with President of UN General Assembly for industry involvement*
- Ocean industry SDG 14 Global event: *WOC Sustainable Ocean Summit, Halifax*

2018

- Continue to develop draft targets/indicators with/for ocean business community
- Engage/consult other stakeholders for input
- Ocean industry SDG Global event
 - *WOC Sustainable Ocean Summit, Hong Kong, 14-16 Nov*

WOC Ocean Investment Platform

An international structure and process to bring together:

- Leadership companies from major ocean use sectors
- Enterprises that provide the solutions
- The investment community

WOC Ocean Investment Platform is bringing value by:

- Catalysing interaction among ocean users, solution providers and investors
- Facilitating synergies and economies of scale among investors, innovation initiatives and challenge competitions to more effectively address ocean sustainable development needs and opportunities
- Providing a common process to identify, articulate and evaluate ocean industry priorities for investment in innovative sustainability solutions



WOC Ocean Investment Platform: Progress, Plans



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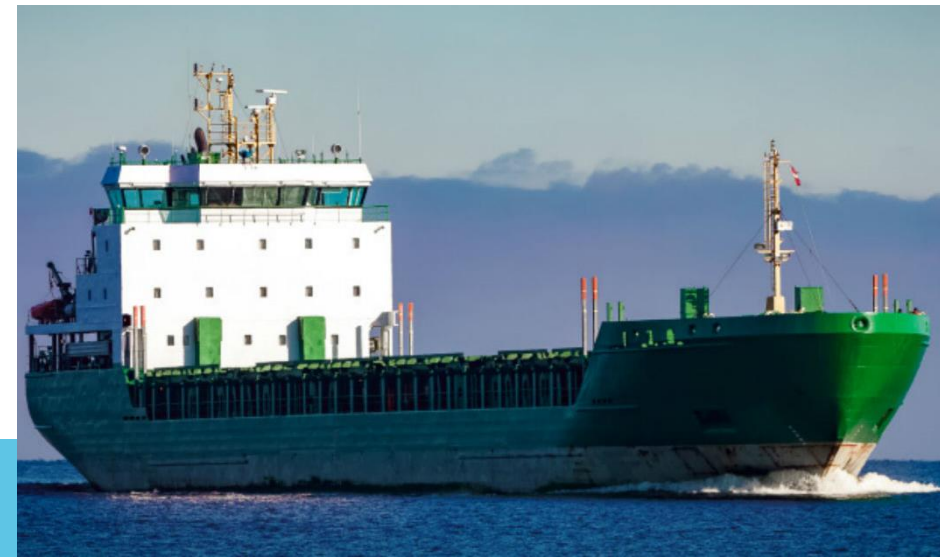
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Ocean Investment Platform development is underway:

- WOC *Sustainable Ocean Summit* session, Investment and Innovation, Nov 2015
- WOC presentation at *Sovereign Wealth Fund Institute Summit (SWFI)*, Singapore, Apr 2016; Scottsdale, Feb 2017
- WOC Ocean Investment Platform session at *Sustainable Ocean Summit (SOS)*, Rotterdam, 2016; Halifax, 2017
- WOC “Ocean Day” at *SWFI* Institutional Investor Forum, Santa Monica, 2018

Initial investment portfolio areas under consideration:

- Waste reduction/reuse on vessels
- Port adaptation/Resilient coastal infrastructure
- Marine debris/Port reception facilities
- Sustainable aquaculture
- Offshore renewable energy
- Technology for ocean data collection



Bringing together the range of marine industries at the regional scale to create cross-sectoral business collaboration on sustainable development, science and stewardship

- **Priority issues in various regions include:**
 - Collaborating with inter-governmental bodies
 - Reducing water pollution, protecting biodiversity
 - Preventing maritime accidents
 - Avoiding the introduction of invasive species
 - Reducing/cleaning up marine debris
 - Improving marine science and observations



Priority regions include:

- Arctic, W Africa, W Indian Ocean, Caribbean, Mediterranean, Coral Triangle

WOC: Partnerships for Sustainable Development

- **Ocean Governance, Policy and Planning**
 - UNCLOS/BBNJ, UNFCCC, SDGs, Convention on Biological Diversity ...
 - Marine Spatial Planning, Ocean zoning
- **Climate Change**
 - Ocean acidification
 - Ocean NETs: Negative Emissions Technologies and the ocean
- **Marine Pollution Reduction**
 - Plastics/Marine Debris and Port Reception Facilities
 - Biofouling/invasive species
 - Marine sound
- **Marine Biodiversity Conservation**
 - Marine protected areas
 - Ship strikes on marine mammals

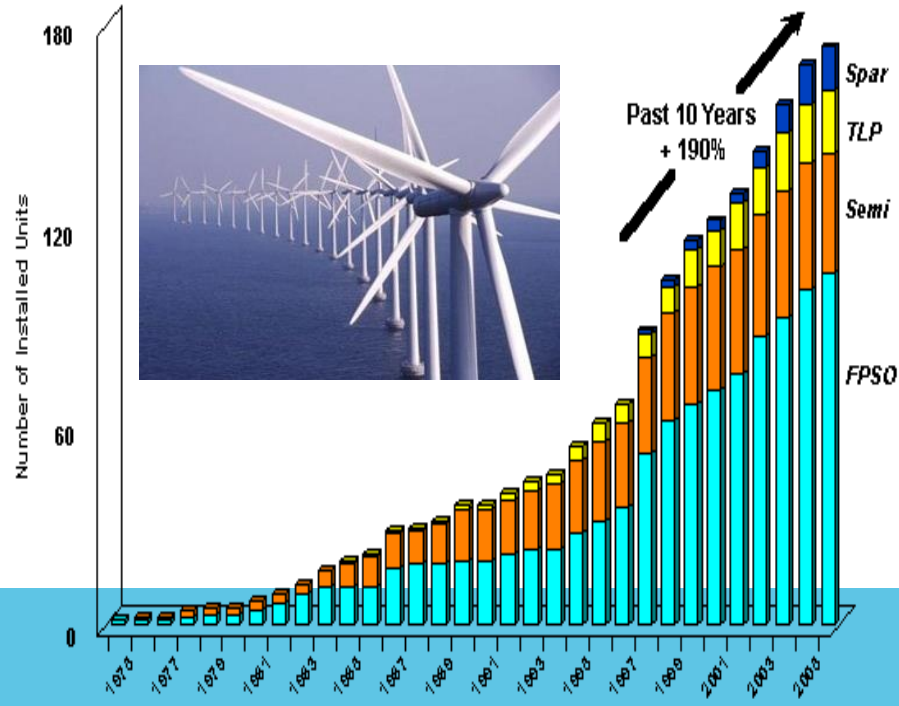


WOC: Partnerships for Sustainable Development

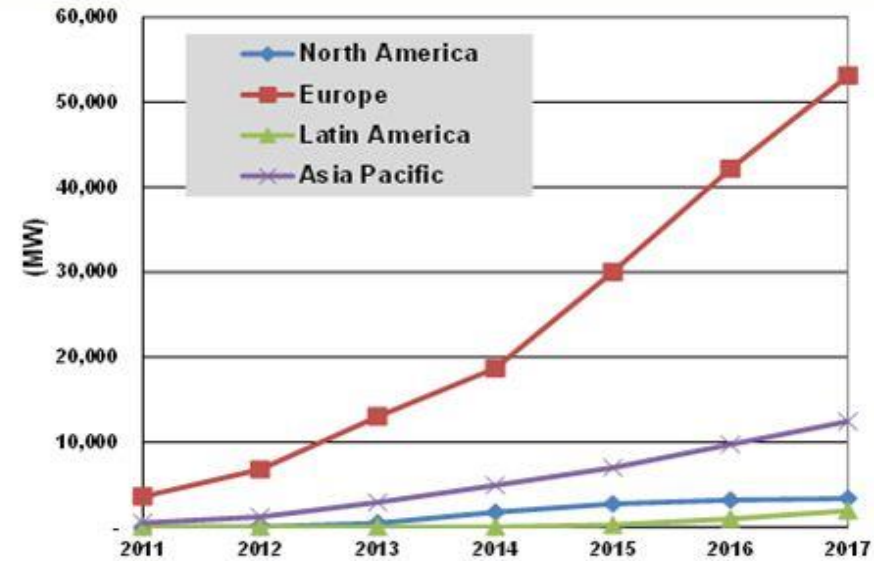
- **Food Security**
 - Sustainable fisheries/reduced IUU fishing
 - Sustainable aquaculture
- **Energy Decarbonization**
 - Ocean renewable energy
- **Disaster Risk Reduction**
 - Port/coastal infrastructure adaptation and resilience
- **Improving Ocean Knowledge**
 - Smart Ocean / Smart Industries:
Data from Industry Vessels/Platforms of Opportunity



OFFSHORE WIND ENERGY



Offshore Wind Installed Capacity, Base Scenario, World Markets: 2011-2017



(Source: Pike Research)

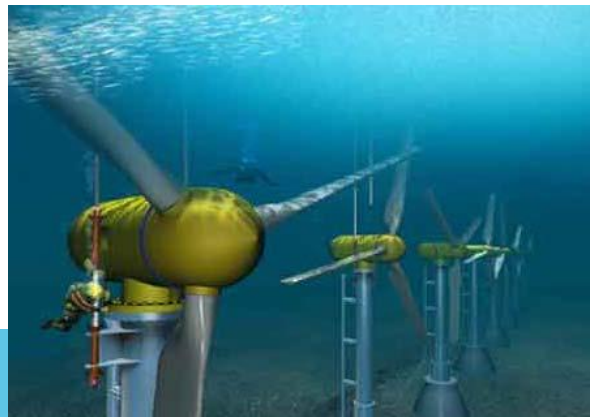
- 2010 growth rate of 59%
 - Offshore farms in 12 countries
- By 2020 Europe will need:
- 20 turbine installation ships
 - 200-300 support vessels

Ocean energy potential

- Wave: 45,000 TWh/year
- Tidal: 1,800 TWh/year
- Thermal: 33,000 TWh/year
- Salinity gradient: 20,000 TWh/year

EU

- By 2020, 1% of E demand
- By 2050, 15% of E demand (188 GW)



WOC-SIDS Partnership for Ocean Renewables



- Offshore wind energy has become an important part of the renewable energy in many parts of the world and a key component of decarbonizing economies
- Wave and tidal energy is poised to also become a significant energy source
- Offshore renewable energy is moving further offshore and into deeper waters
- Emerging challenge to address potential conflict between offshore renewables and other uses, including commercial fisheries and shipping
- All these sectors play important existing and future roles in coastal economies and policy
- In order for offshore renewables to grow, there is a need to:
 - Address this issue in order to enable co-existence of sectors
 - Facilitate interaction between industry, authorities and other interested parties

WOC-SIDS Partnership for Ocean Renewables (2)



Co-existence of fishing and shipping with offshore renewables is a global issue, but with local and regional specific needs and opportunities for SIDS

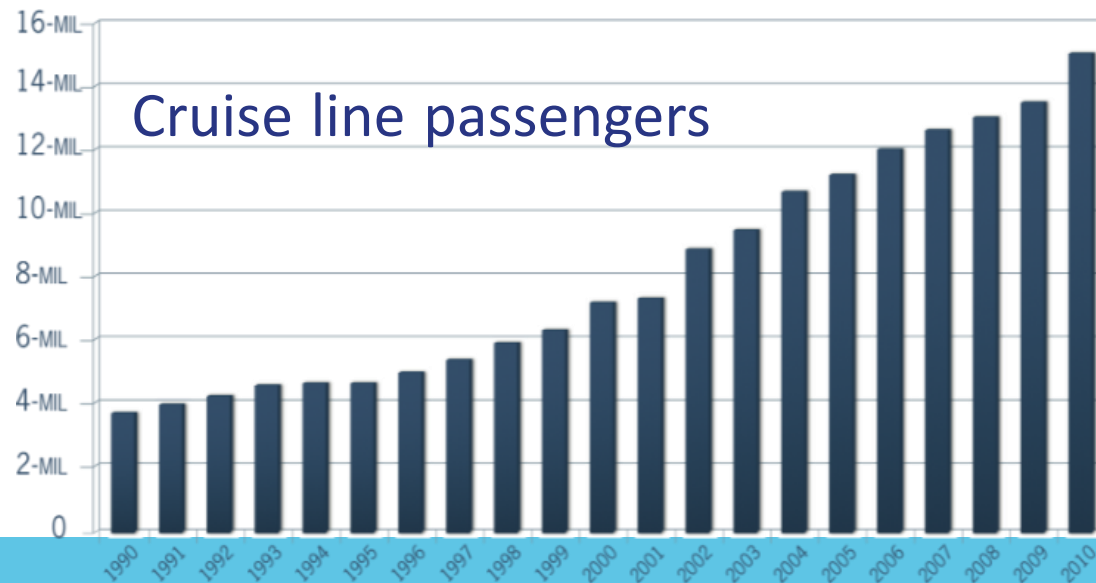
WOC is working to:

- **Establish a framework for inter-industry interaction** related to issues, requirements and the use of ocean space re offshore renewables and the fishing and shipping industries
- **Identify strategies and approaches** to optimize the sustainable development and economic opportunity potential for all uses
- **Develop practical, replicable and geographically implementable solutions**

Goal: Reduced conflict between offshore renewables and other industries so low carbon energy can advance as rapidly as possible in SIDS

CRUISE LINE TOURISM

- **14 million passengers in 2010**
- **Growing at 8.5% per year over the next decade**
- Global fleet: 341 ships (92 megaships, > 2000 berths)
- 53 ships built in last 5 years (40 megaships)
- Europe: up 12% from 2009, now 33% of global market
- Asia: up 10-40% from 2009 in various countries
- New destinations: Africa, Australia, Indonesia, Arctic



SHIPPING

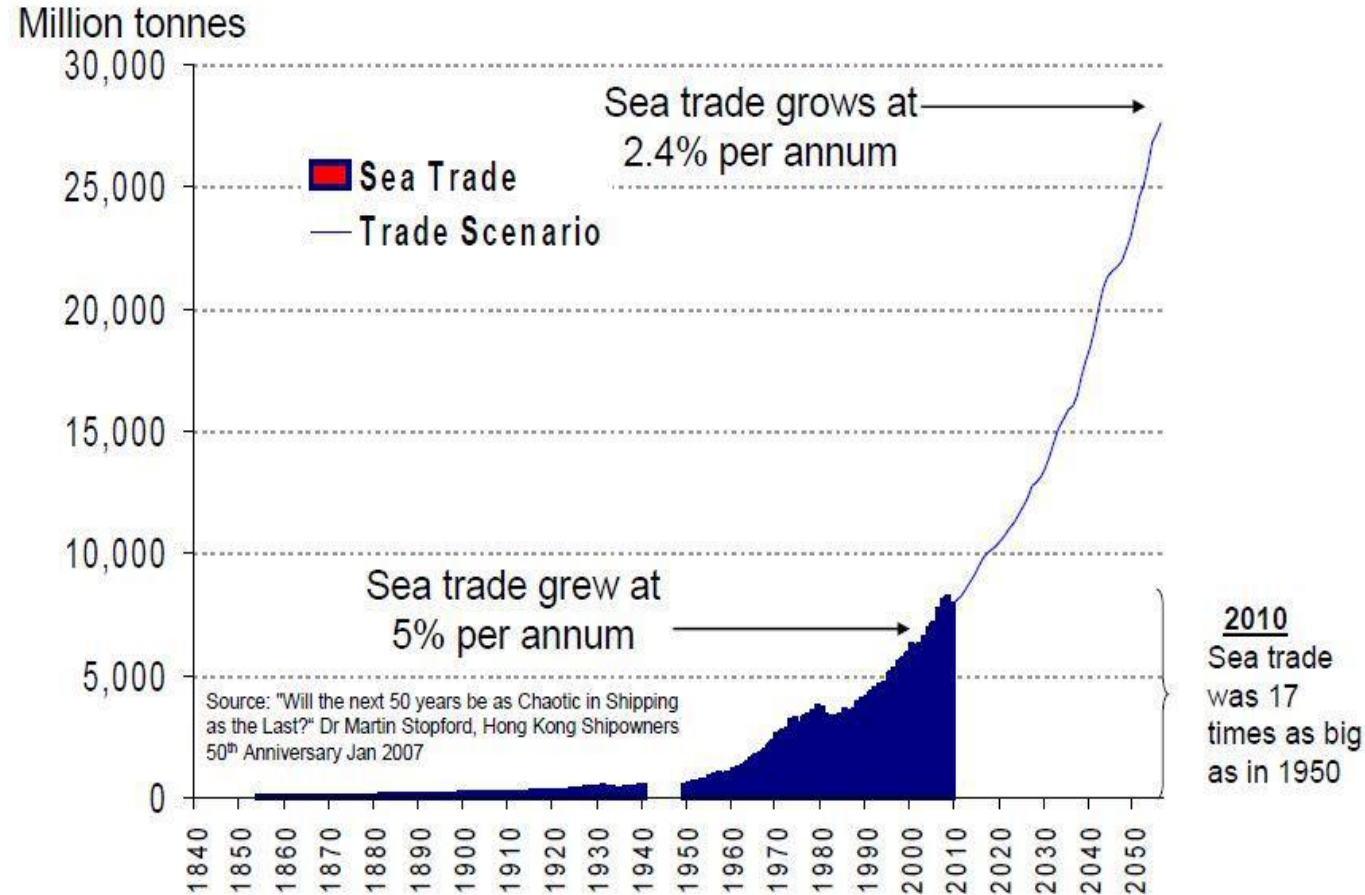
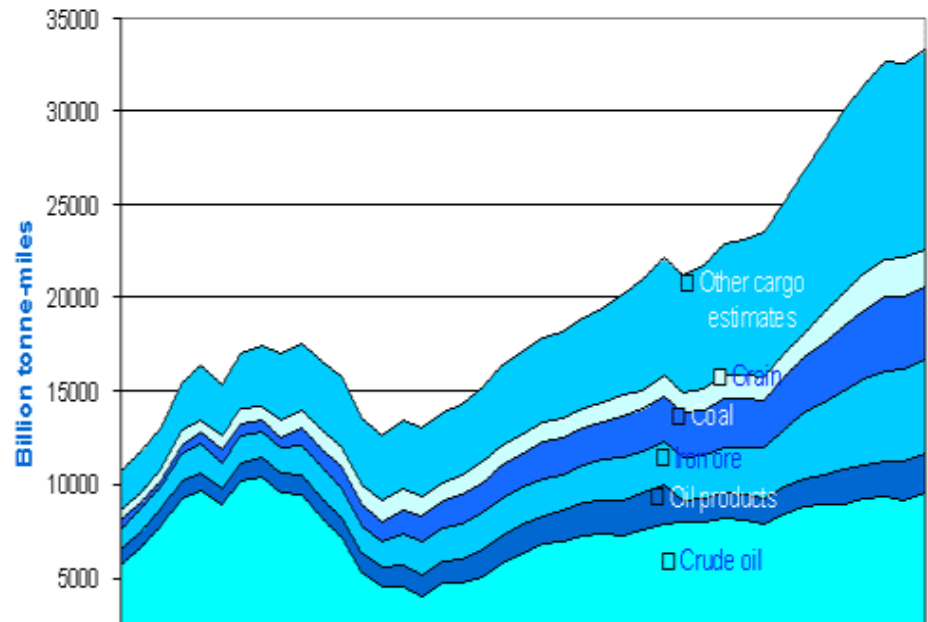
- 90% of global trade
- Container shipping has increased by 10% / year since 1985



50,054 ships (2010)

- Bulk carriers, container ships, tankers, passenger ships

World seaborne trade 1969-2010



and Coastal Infrastructure

- Ports, maritime transport (including cruise ships) and associated coastal infrastructure are lifeline for the economy, culture, and social well-being SIDS
- Ensuring their resilience, operability and sustainability in the face of climate change is essential to the economic development of SIDS
- Extreme weather events can cause the closing of ports, disruption of land transport, shutting of airports, interruption of water and food provision, loss of energy production or delivery, shuttering of businesses, etc.
- Loss of port and coastal infrastructure functions immediately affects emergency humanitarian aid and assistance to be delivered
- Longer term economic and social recovery at all levels is constrained by the delay in returning to pre-impact functioning, creating significant business, government and communities impacts

and Coastal Infrastructure (2)

Private sector has a critical role to play in the ports and coastal infrastructure adaption:

Driving the need for resiliency - Ports and coastal infrastructure are essential to a wide range of industries, e.g. cruise/coastal tourism, shipping, fishing, aquaculture, offshore energy, cruise tourism, etc. - all of whom suffer business losses when infrastructure is damaged and inoperable and therefore have a strong incentive for resiliency.

Planning for adaption - Developing the plans for adaptation of ports and coastal infrastructure requires the services of design, planning, and engineering firms.

Undertaking adaption - Actual adaptation activities require engineering construction and marine/costal natural resource restoration and management firms to do the work

Financing adaptation - Port and coastal infrastructure adaptation will often require significant, long term financing from the private sector, possibly in partnership with public or other sources though mechanisms such as Blended Finance or Public-Private Partnerships (PPP)

and Coastal Infrastructure (3)

A multi-phase approach is necessary to engage the private sector in ports and coastal infrastructure resiliency in SIDS:

- **Capacity building for engaging the private sector**
- **Adaption needs assessment/stress testing** - based on likely climate change scenarios, especially regarding extreme events
- **Adaption planning and project development**
- **Project consortium development and project financing**
- **Adaption project implementation**
- **Adaption replication in other ports/SIDS**

WOC is exploring a partnership with Green Climate Fund to advance this approach

Phase 1 would focus on 6 SIDS partners:

- 2 each from Pacific, Indian Ocean, Pacific and Caribbean

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

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Opportunities of Ships

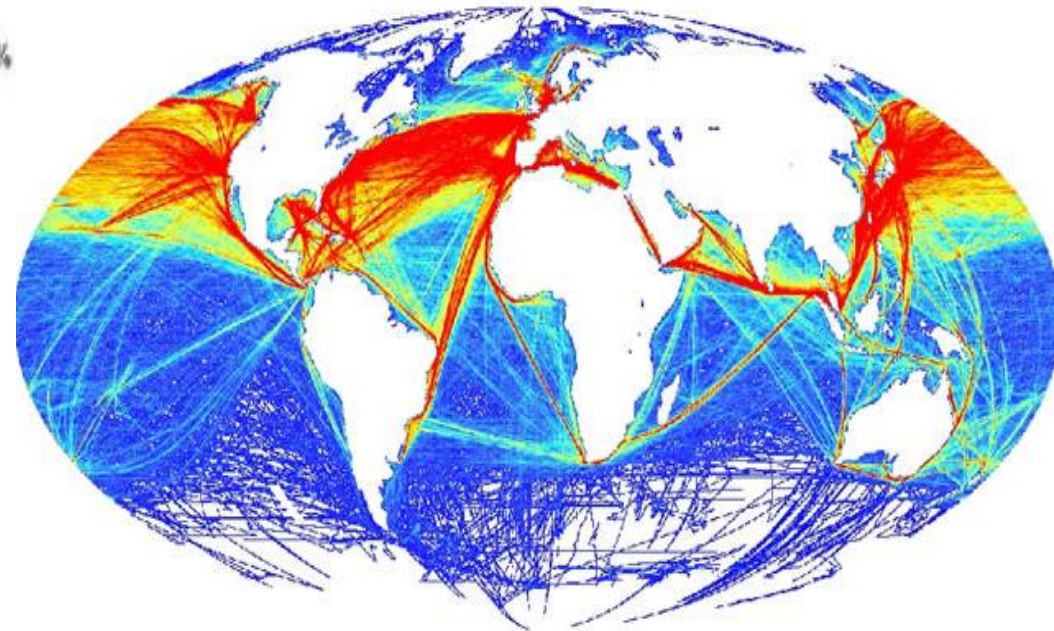
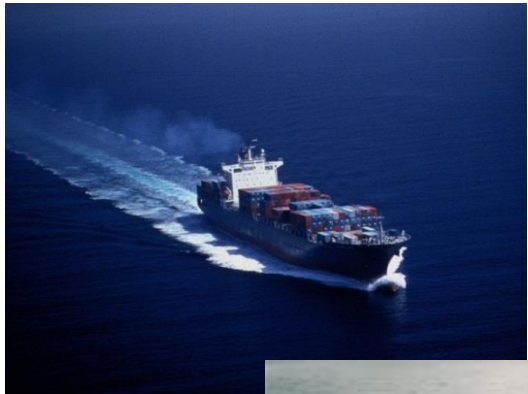
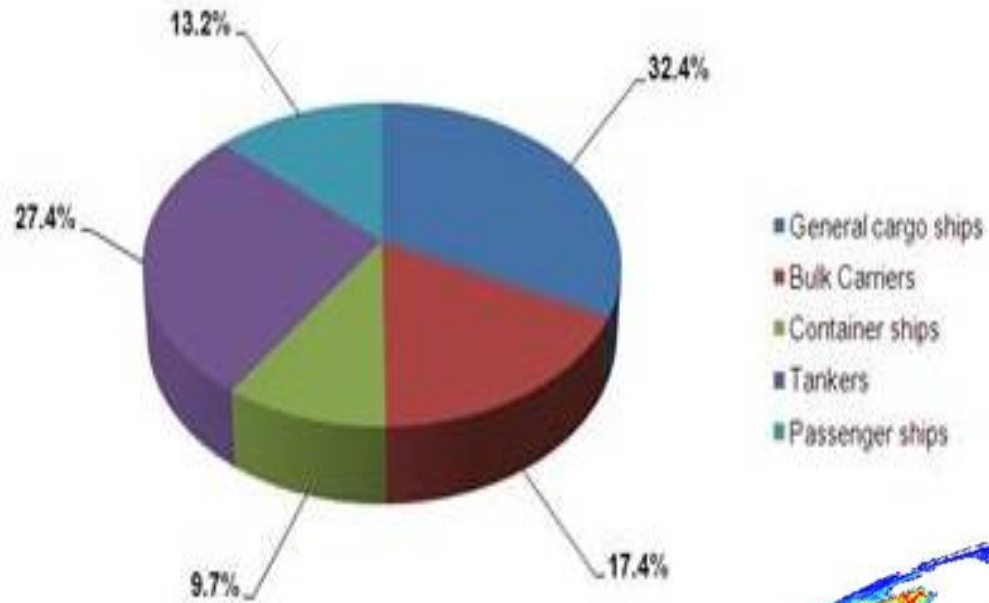


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50,054 ships (Oct 2010)

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



Other Ship and Platform Opportunities



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Oil and gas



Fisheries



Aquaculture



Ferries



Offshore wind energy



Wave/tidal energy



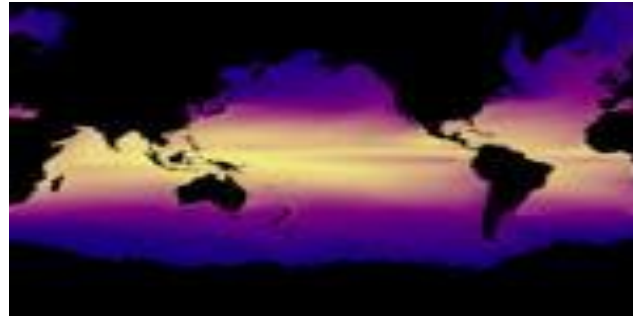
WOC Smart Ocean-Smart Industries: How it works



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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 Sustainable Ocean Summit (SOS)

Hong Kong, 14-16 Nov 2018

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