

Ocean business leadership and collaboration for sustained growth in the Blue Economy

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The International Business Alliance
for Corporate Ocean Responsibility

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What is the Blue Economy ?

- Est. \$ 4+ trillion/year ocean economic activity
- Ocean is critical to economic development
- Ocean business community is the primary ocean user
- US: \$ 282 billion/yr, 2.8 million jobs
- China: 9.4% of GDP, 35.5 million jobs
- Ireland: € 3.4 billion/yr ocean economy
- Pacific SIDS: \$ 3.3 billion/yr for fisheries/tourism



Drivers: Growing Ocean Use

- Offshore oil and gas
- Shipping
- Mining / Seabed mining
- Fisheries
- Aquaculture
- 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

A 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.)

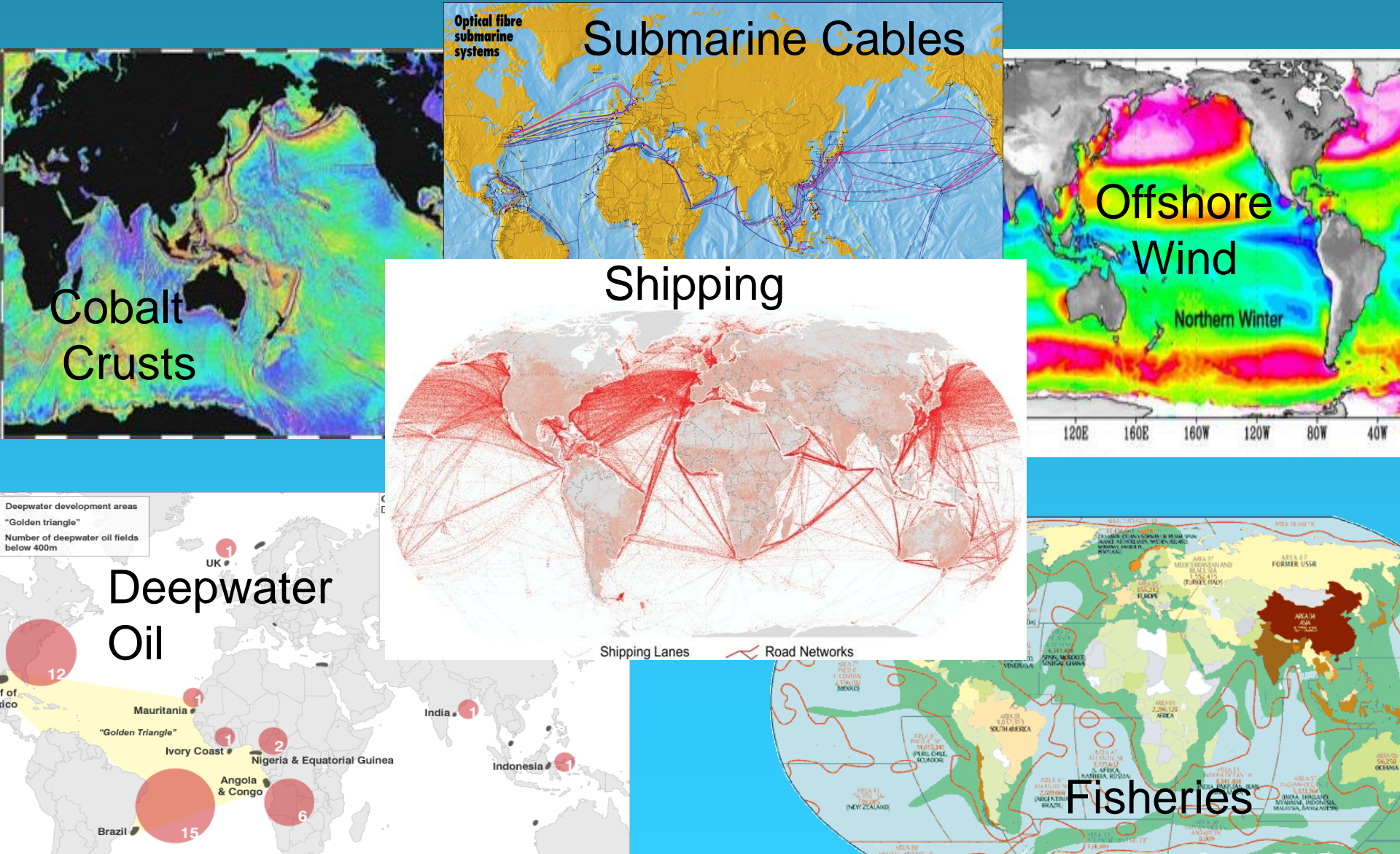
2. Ocean User Support Industries

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)

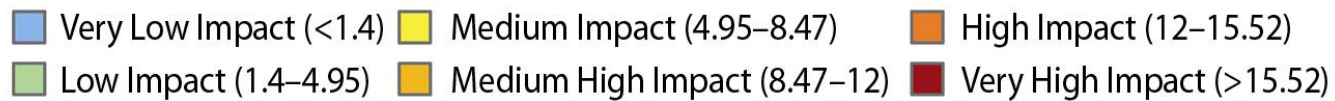
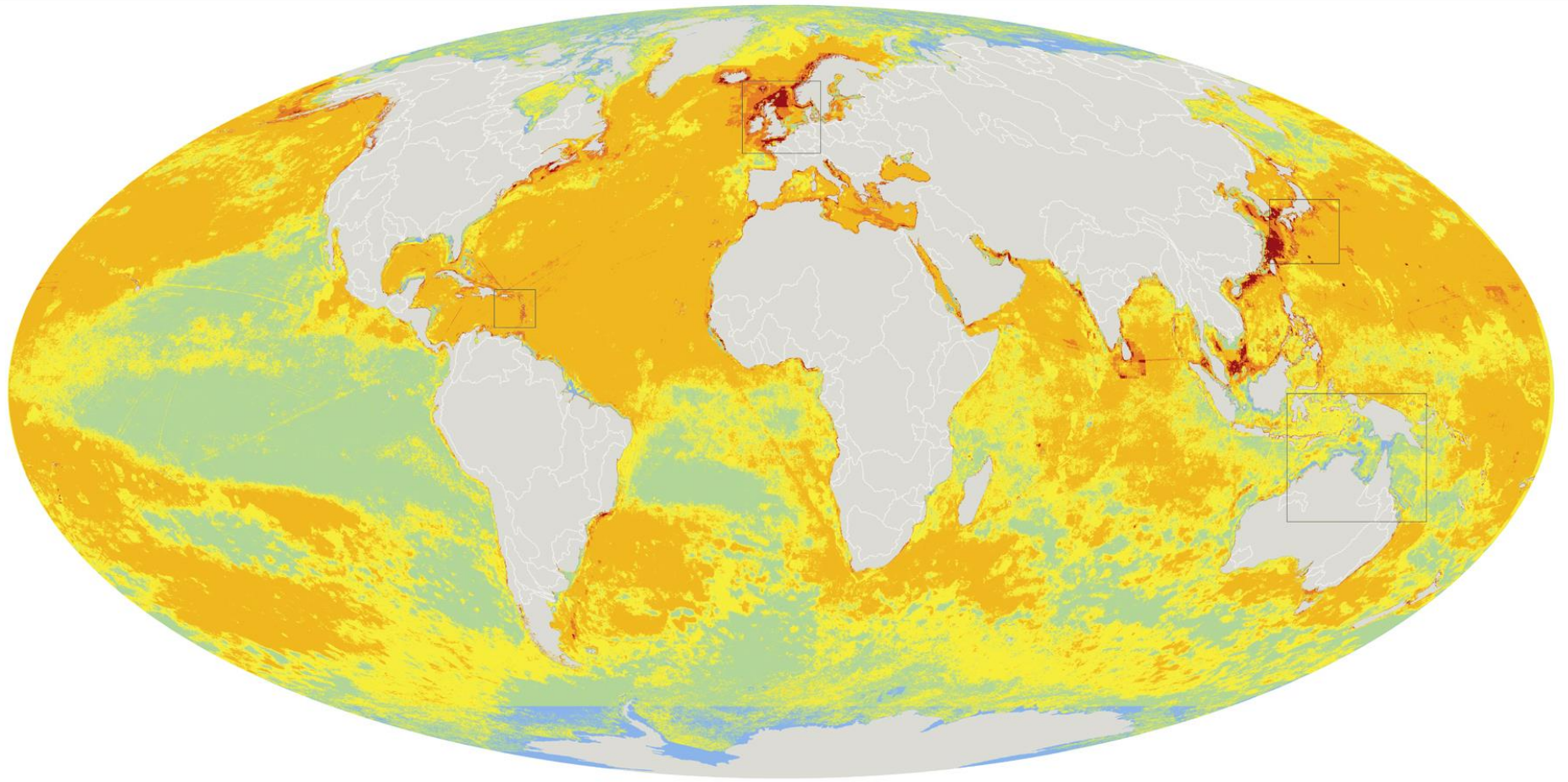
3. Essential Ocean Use “Infrastructure”

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

Drivers: Global Ocean Economic Activity



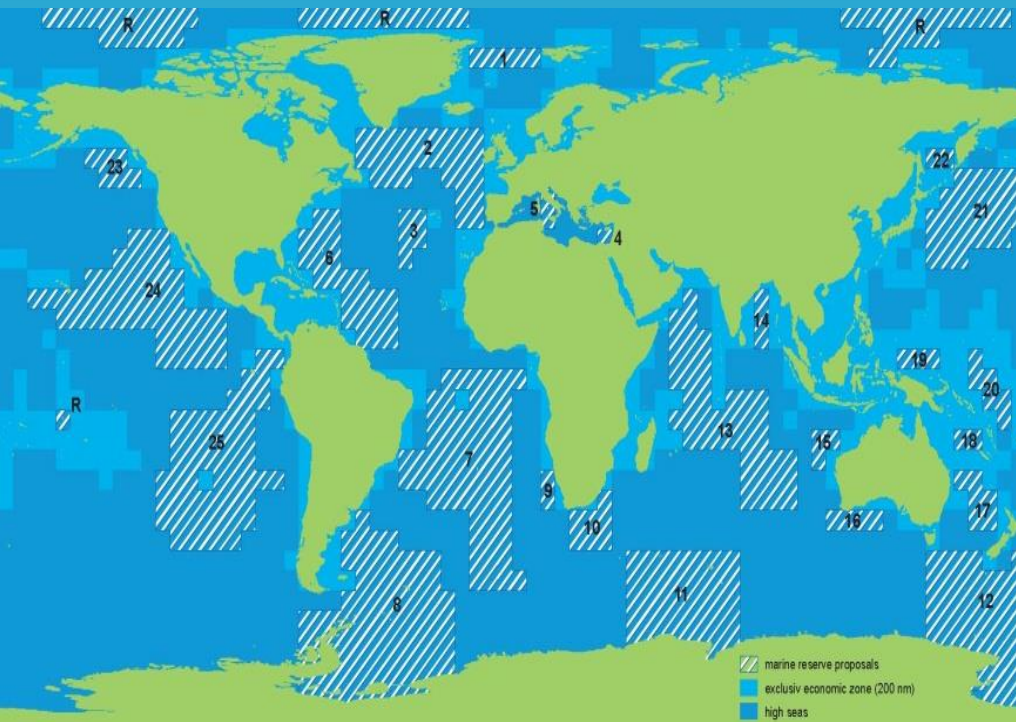
Drivers: Ecosystem Impacts



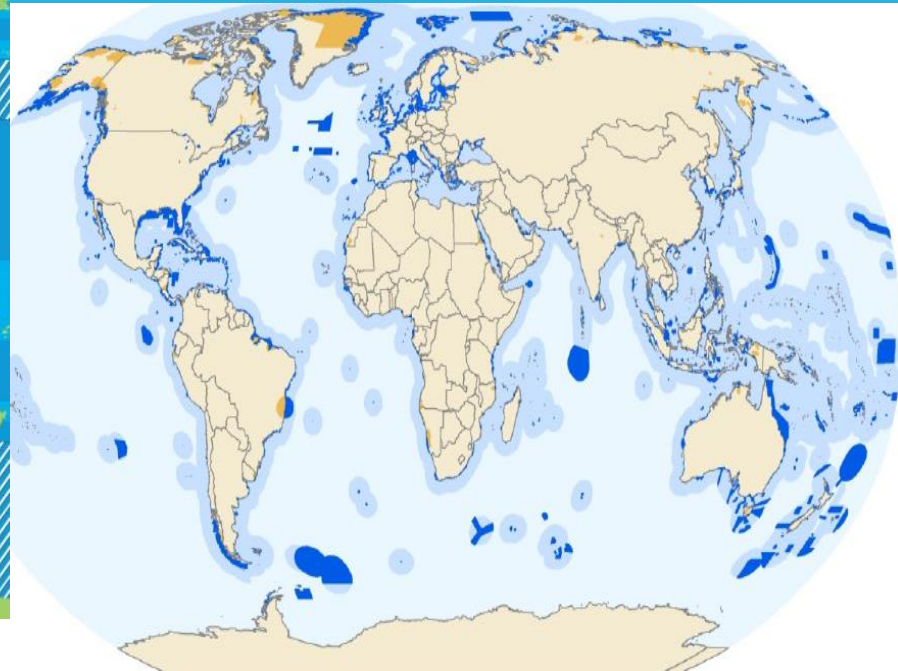
Drivers: Protected Areas/Spatial Management

- Target of 10-40% of marine environment protected
- Many very large MPAs / High seas MPAs being developed

Proposed MPA network



Existing MPAs



Ocean Industries and Ocean Governance

Converging Marine Environment/Sustainability Trends

Precautionary Approach

- + Marine Protected Areas

- + Ecosystem Based Management

- + Marine Spatial Planning/Ocean Zoning

- + Marine Biodiversity/ Marine Mammals

- + High Seas Concerns

- + Deep Seabed 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 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



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 in
 - Advancing “*Corporate Ocean Responsibility*”
 - Communicating responsible ocean industry/economy
- 80+ members worldwide; 34,000+ in global network

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

3W Marine Pty Ltd

Almi Tankers S.A.

Arcadis

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Arctic Fibre

Baird Publications

Battelle Memorial Institute

Beveridge & Diamond, P.C.

BigBlueStuff

Birds Eye – Igloo

Blank Rome

BP

Cape Breton University

Cape Cod Comm. Fishermen’s Assn.

Caris USA Inc.

Center for the Blue Economy

China Navigation Company

Class NK

CSA Ocean Sciences Inc.

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Global Trust Certification

Golder Associates

Guangxi Penshibao Co., Ltd

Heidmar, Inc.

Heerema Marine Contractors

Holman Fenwick Willan LLP

Hydrex

Intl Chamber of Shipping (ICS)

Intl Tankers Owners Pollution Fed. (ITOPF)

JASCO Applied Sciences

Keppel Offshore and Marine

L3 MariPro

Lloyds Register

Louisbourg Seafoods

M3 Marine (Offshore Brokers) Pte Ltd

Manson Oceanographic

Marinexplore

Marine Acoustics, Inc.

Memorial University – Marine Institute

Mitsubishi Heavy Industries

Nautilus Minerals, Inc.

N America Marine Env’t Protection Assn.

Noise Control Engineering

Ocean Nourishment

OceanNetworks Canada

OLRAC SPS

PanGeo Subsea

Resolute Marine Energy

RightShip

Rio Tinto

Royal Greenland A/S

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Shell

Shipping HK Forum Ltd

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SubCtech

Swire Pacific Offshore

Tai Chong Cheang (TCC) Steamship Co HK

Technip

Teck Resources

TierraMar Consulting

TOTAL

Total Marine Solutions

Twin Dolphins

Univ. Texas Marine Science Inst.

WOC Ocean Business Leadership

1. Ocean Policy and Governance

- Convention on Biological Diversity (CBD); Law of the Sea; etc.

2. Marine Spatial Planning/Ocean Zoning

- US; EU; Australia, etc.

3. Operational Environmental Issues

- Biofouling/Marine Invasive Species
- Sound and Marine Life; Marine Mammal / Vessel Interactions
- Port Waste Reception Facilities / Marine Debris
- Water Pollution/Waste Discharge

4. Regional Ocean Business Councils

- Arctic, **Trans-Atlantic**, Mediterranean, Caribbean, etc.

5. Smart Ocean - Smart Industries

- Data from Vessels/Platforms of Opportunity

6. Sea Level Rise/Extreme Weather Events

- Port/coastal infrastructure adaptation and resiliency

1. Ocean Policy and Governance

Convention on Biological Diversity (CBD)

- Identifying Ecologically / Biologically Significant Areas (EBSAs) for management, esp for ABNJ
- EIA for marine areas, esp for ABNJ

UN Law of the Sea

- Negotiating new “Implementing Agreement” re environment in Areas Beyond National Jurisdiction
Proposed EIA for commercial activities in ABNJ

UN Sustainable Development Goals for 2015-2030

- Ocean development goal and targets

WOC is usually the only industry presence in these inter-governmental negotiations affecting future of the Blue Economy

Convention on Biological Diversity (CBD)

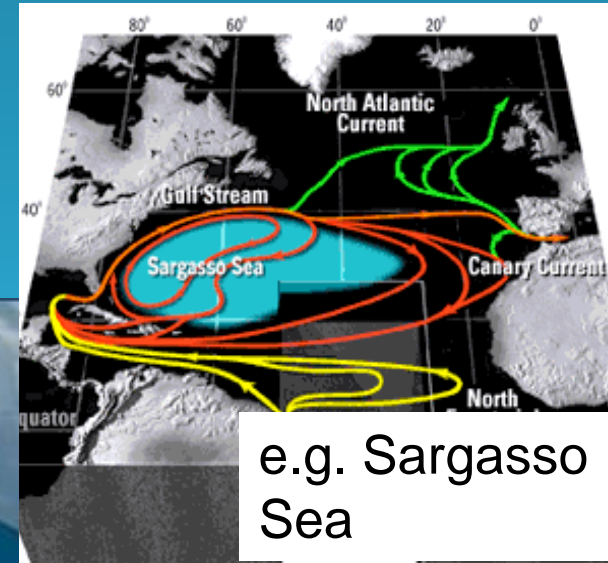
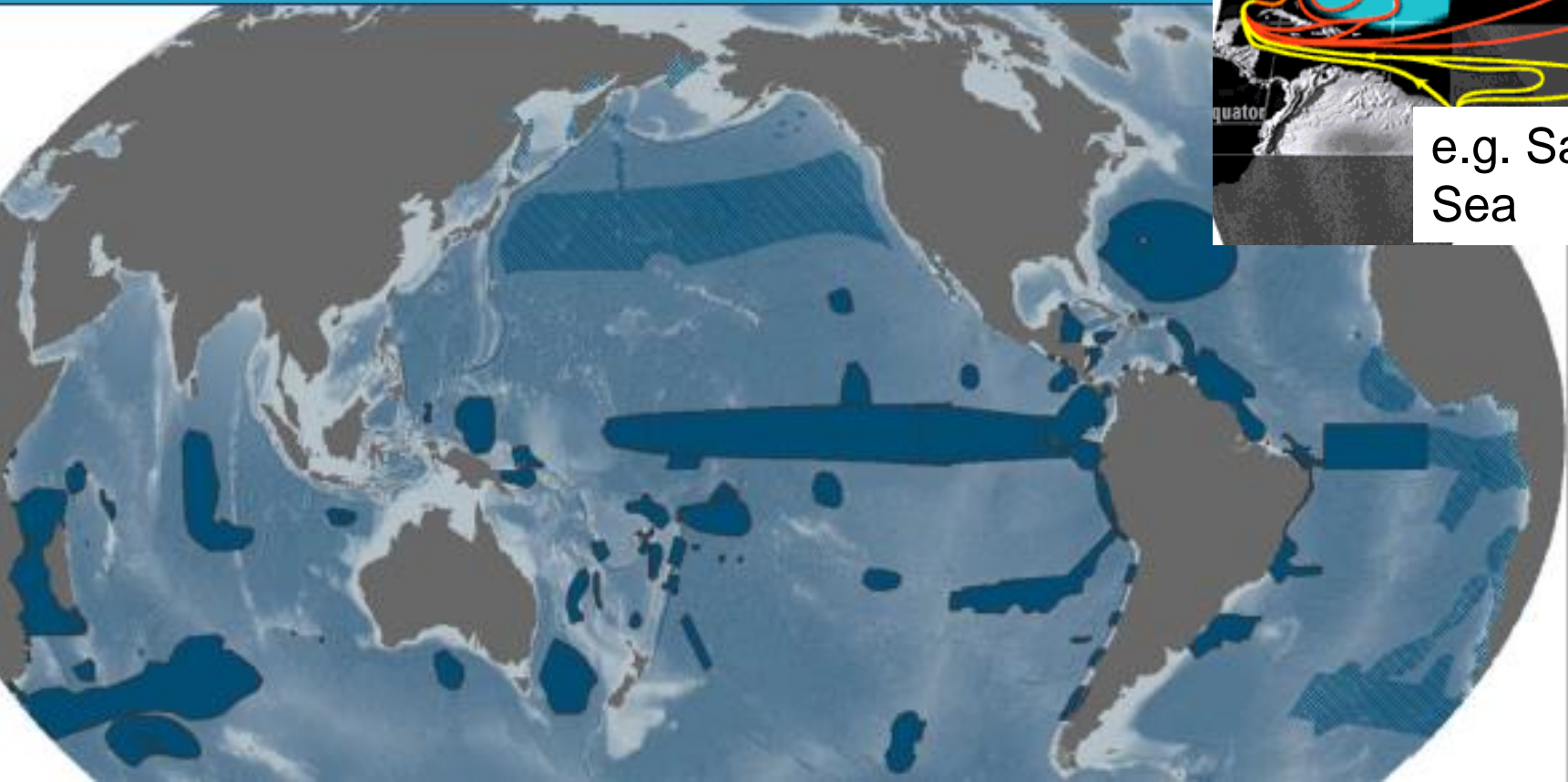
- Ratified by 193 countries
- Conference of Parties (COP) every 3-4 years
- Conservation and sustainable use of species / ecosystems
- Primary vehicle for marine conservation policy-making for EEZs and Areas Beyond National Jurisdiction (ABNJs)
- COP 7 and 8 developed targets for conservation of at least 10% of each of the world's marine / coastal ecoregions
- COP 9 and 10 approved and advanced work on **Ecologically / Biologically Significant Areas (EBSAs)**
- Proposals for **Environmental Impact Assessment (EIA) requirements for high seas commercial activities**

Ecologically / Biologically Significant Areas

- 2007 Expert Workshop on Ecological Criteria and Classification - ***No ocean industry presence***
- 2008 COP 9 adopted scientific criteria for identifying EBSAs in need of protection and scientific guidance for selecting MPA network - ***No ocean industry presence***
- 2009 Expert Workshop on Scientific and Technical Guidance in Identification of Marine ABNJs in Need of Protection – ***WOC is only ocean industry presence***
- 2011 COP 10 decision to accelerate identification and protection of EBSAs in high seas - ***WOC presence***
- 2011-14 CBD regional workshops to facilitate the identifying EBSAs using CBD criteria – ***Almost no industry presence***
- 2012 Preparatory Meetings/COP 11 – ***WOC presence***

Ecologically / Biologically Significant Areas

Areas meeting CBD criteria for EBSAs and proposed for inclusion in EBSA register



e.g. Sargasso Sea

Ocean Governance Happens: Sargasso Sea

“Hamilton Declaration on Collaboration for Conservation of the Sargasso Sea”

- Signed by Bermuda, UK, US, Monaco, Azores, 11 March 2014
- Establish Sargasso Sea Commission and Secretariat
- Develop proposals using best science, ecosystem approach and precautionary approach, including for:
 - **“Measures to control, minimize, and where possible, eliminate the adverse effects of international shipping”**
 - “Measures to minimize... the adverse effects of fishing activities”
 - **“Any other measures to maintain the health, productivity and resilience of the Sargasso Sea and to protect its components... from the adverse effects of anthropogenic activities”**



Ocean Governance Happens: New International Instrument Under UNCLOS

UN General Assembly (UNGA) and Rio+20 decided that **before the end of UN General Assembly 69th Session:**

- Urgently address biodiversity conservation/sustainable use in ABNJ
- **Decide on the development of an international “implementing agreement” under UNCLOS to address requirements for:**
 - Establishing marine protected areas (MPAs)
 - Conducting Environmental Impact Assessments (EIAs) in ABNJ
 - Conducting Strategic Environmental Assessments (SEAs)
 - Ensuring access and benefit sharing of marine genetic resources
- Include consideration of:
 - Identification and selection of conservation measures for EBSAs
 - Regional identification of MPAs in ABNJ
 - Activity types to be regulate
 - Establishing enforcement measures

WOC Ocean Policy Program / Working Group

Increase the level of informed, coordinated and proactive involvement of private sector in ocean governance and policy developments that impact business:

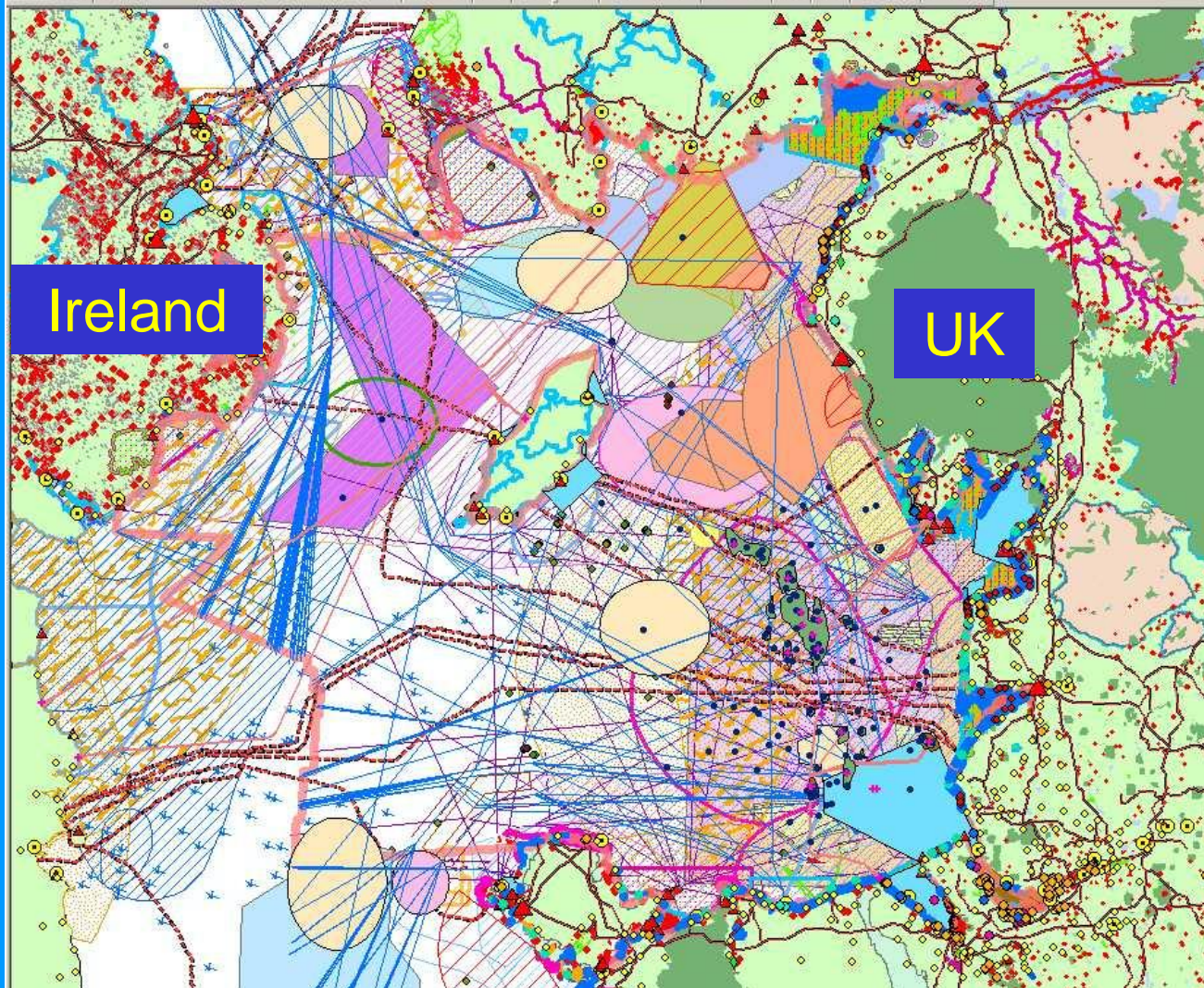
- Monitor, analyze and report on ocean policy developments
- Ensure industry input to key ocean policy events, e.g. UN
- Provide updates on ocean policy at key industry events
- First-ever *Business Forum on Ocean Policy and Planning* (New York, 29-30 Sept, 2014)
- First-ever *Ocean Policy Review and Analysis for Industry*:
http://www.oceancouncil.org/site/business_forum/index.php?page=report

2. Marine Spatial Planning/Ocean Zoning

- Ensure ocean business community is informed of ocean planning process and plans
- Examine how ocean planning has worked and review the role of industry
- Define and examine the potential business impacts and benefits of ocean planning
- Determine how industry can optimize potential ocean planning benefits and minimize the impacts
- Develop coordinated business community engagement in ocean planning
- Ensure that ocean planning takes into account the viability of responsible ocean economic activities

The Sea is Crowded with Many Uses

- Tourism
- Oil & gas
- Mariculture
- Coastal defence
- Ports & navigation
- Military activities
- Culture
- Conservation
- Submarine cables



- Dredging & disposal
- Renewable energy
- Marine recreation
- Mineral extraction
- Fishing

WOC MSP Program

Exploring if and how ocean business community wants to engage MSP developments in more cross-sectoral manner.

Areas where MSP is or may develop and where there is significant WOC Member interest or concern about MSP:

- US
- Canada
- EU
- Australia
- Arctic
- International waters/high seas

3. Operational Environmental Issues

- **Marine Waste and Debris/Water Quality**
 - Port Reception Facilities Working Group
 - Solid waste
- **Marine Invasive Species**
 - Biofouling Working Group
- **Marine Sound**
 - Marine Sound Working Group
- **Marine Mammal Interactions**
 - Ship strikes

4. Regional Ocean Business Councils

Priority areas:

- Arctic, **Trans-Atlantic**, Mediterranean, Caribbean
- Bringing together the range of marine industries in the region to create cross-sectoral business collaboration on sustainability, 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

WOC Arctic Business Leadership Community

- Create cross-sectoral business alliance on coastal / marine responsible development in the Arctic
- Bring together region's coastal / marine industries
- Build on initial industry contacts and network developed by Arctic Council, its working groups, other key stakeholders
- Tackle priority issues that benefit from business collaboration

WOC-Arctic Business Meetings

- Arctic Business Leadership Council workshop (16 Sep '12)
- Business Dialogue with Arctic Council (17 Sep '12)
- Business Cooperation session at Arctic Circle (12 Oct '13)
- Industry Sustainability session at Arctic Circle (30 Oct '14)

5. Smart Ocean - Smart Industries

Enhance and advance the clear, compelling business and society benefits of increased ocean data

Ensure wide range of industry vessels and platforms are:

- Providing routine, sustained, standardized ocean, weather and climate data that
- Contributes to describing the status, trends and variability of oceanographic and atmospheric parameters (e.g. pH) and conditions, and, thereby,
- Improves the understanding, modeling and forecasting of oceanic ecosystems, resources, weather, climate variability and climate change (e.g. acidification).

WOC/Industry leadership in ocean knowledge

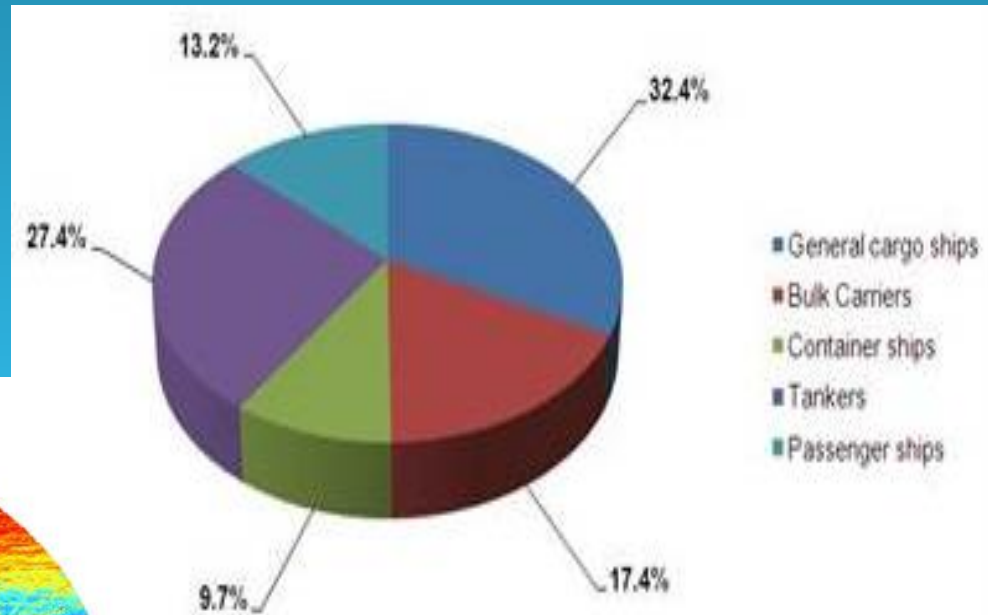
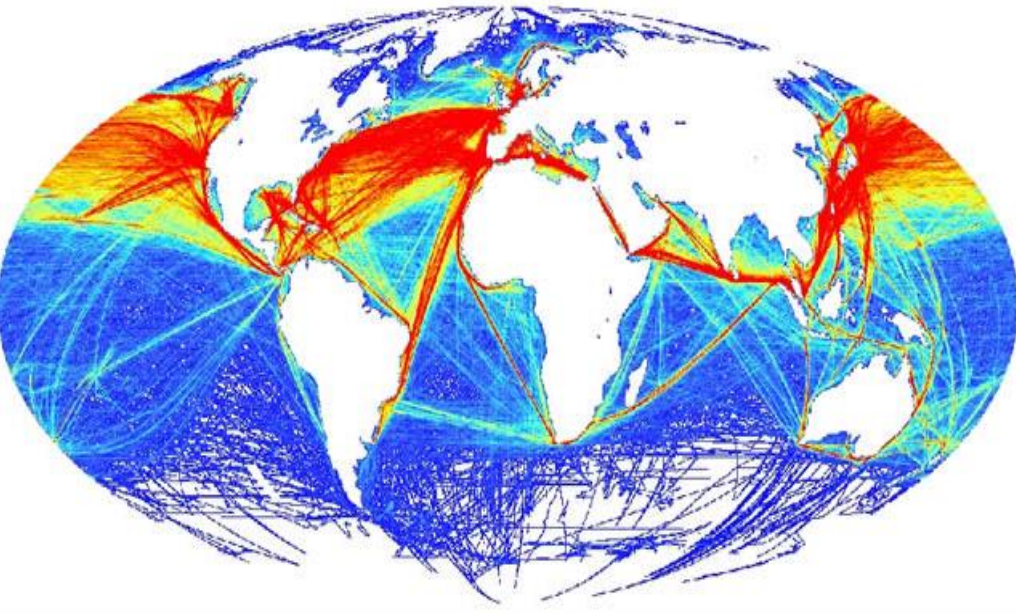
Creating an international, multi-industry system to:

- Foster, facilitate and broker interaction between scientists needing data and companies with vessels and platforms that could collect data
- Improve the coordination and efficiency of data sharing and input to national/international systems
- Create business drivers for innovation and a significant market for data collection technology
- Build on existing “ships/platforms of opportunity” programs, e.g. SOOP, Ferry Box, etc.
- Partner with and support the programs needing data, e.g. GOOS, GO-AON, OBIS, SAON, etc.

Opportunities of Ships

50,054 ships (Oct 2010)

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



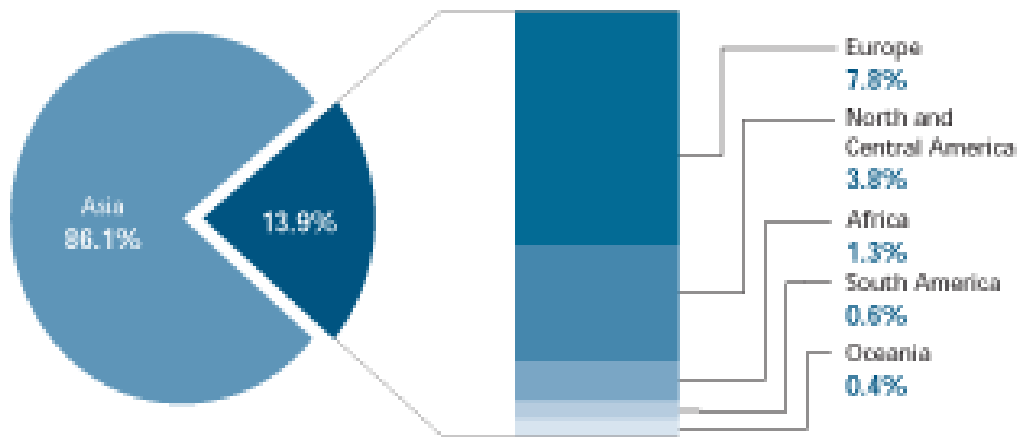
Figures in brackets are numbers of ships, by sector.
Source: IHS Fairplay October 2010

Opportunities of Fishing Vessels

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

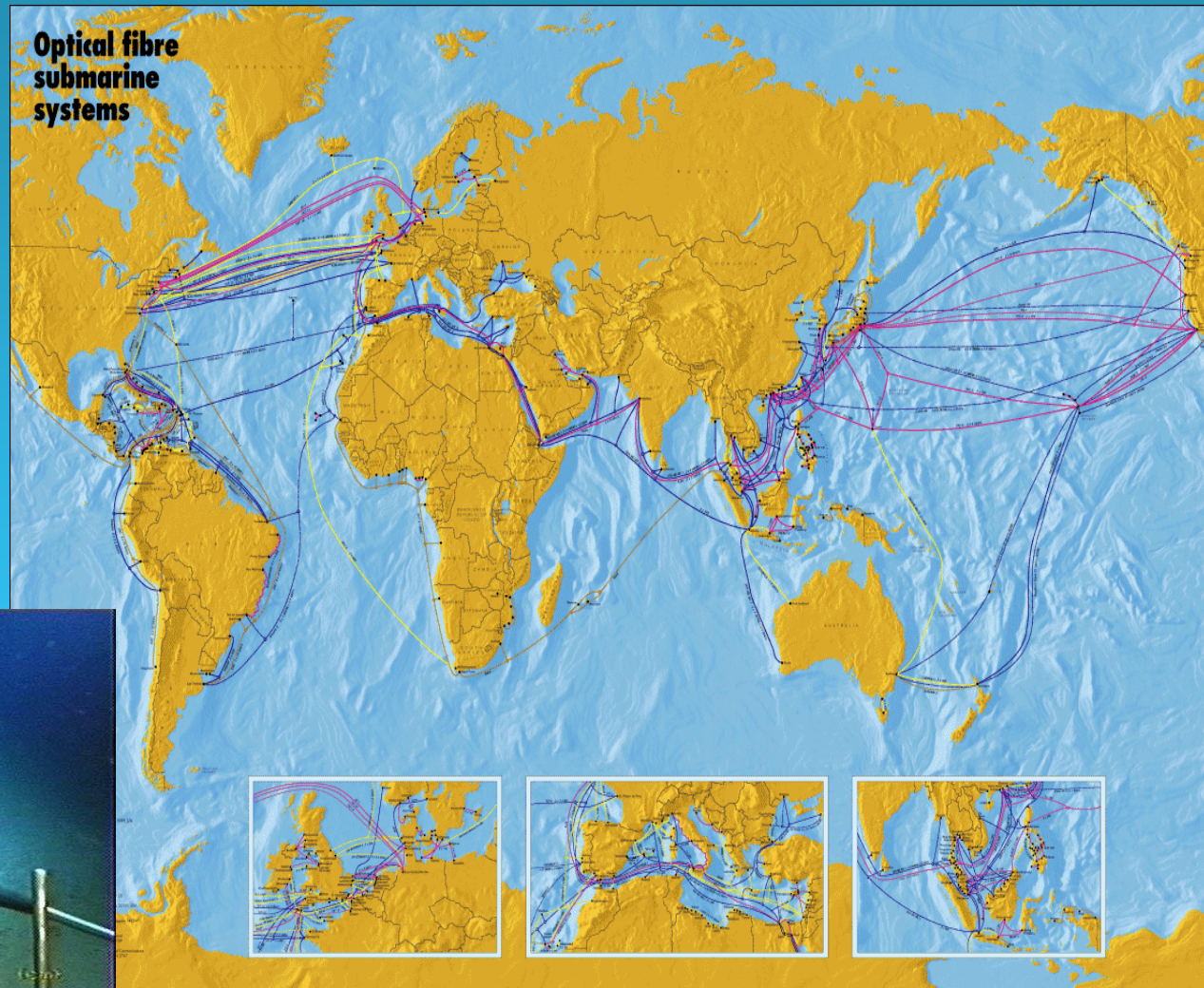


Distribution of decked fishing vessels by continent



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



Offshore wind energy



Ferries



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

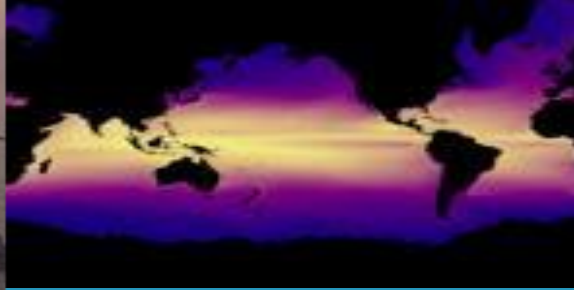
- Retrofit – existing vessels and platforms
- New builds

Cost-Efficient

- Synergies – within and between industries
- Economies of scale

Smart Ocean/Smart Industries: Next Steps

- Develop joint Industry/Science Steering Committee
- Define value proposition/rationale for industry and science
- Inventory of 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
- **Develop pilot projects to put “Smart Industries” to work**
 - Regional, e.g. Arctic
 - Parameters, e.g. ocean acidity



~ Thank You ~

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