

The Ocean/Blue Economy, Sustainable Development, and the role of the Private Sector

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The International Business Alliance
for Corporate Ocean Responsibility

What is Ocean Economic Activity Worth?

- 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



Extensive, Growing Multiple Use Ocean

- Shipping
- Offshore oil and gas
- Fisheries
- Aquaculture
- Sea bed mining
- Cruise and coastal tourism
- Dredging
- Submarine cables/pipelines
- Offshore wind energy
- Wave/tidal energy
- Ports/marinas
- Recreational/sport boating
- Desalination
- Carbon sequestration
- Ocean habitation

Expanding

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

Who is the Ocean Business Community?

Diverse, global, multi-sectoral, inter-connected...

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 (e.g. transport, tourism, cable, etc.)

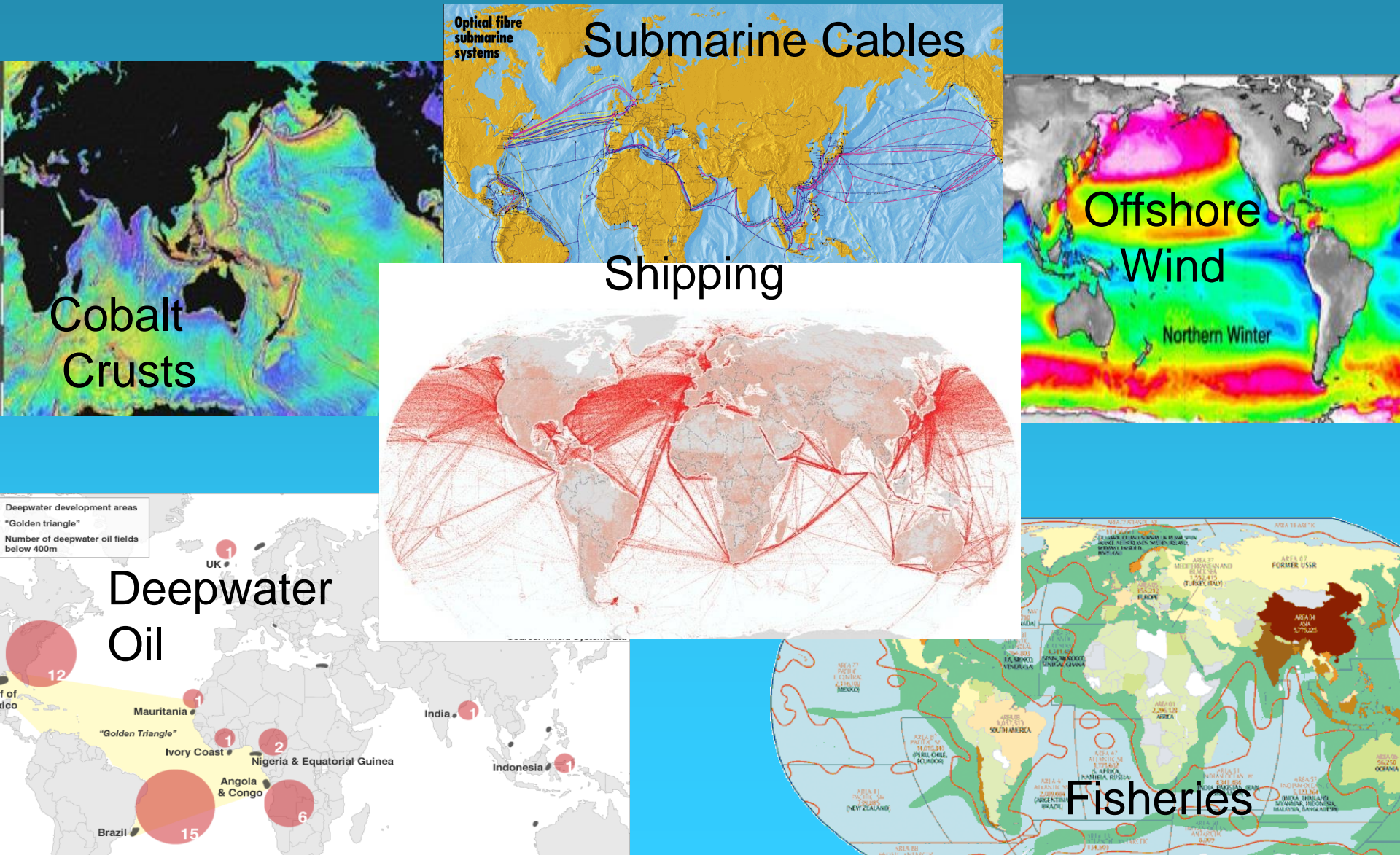
2. Ocean User Support Industries

Industries that depend on direct users for their existence (e.g. shipbuilders) or drive the need for ocean industry (e.g. manufacturers, retailers that transport materials or products by sea)

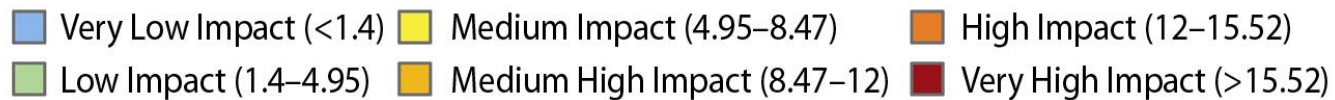
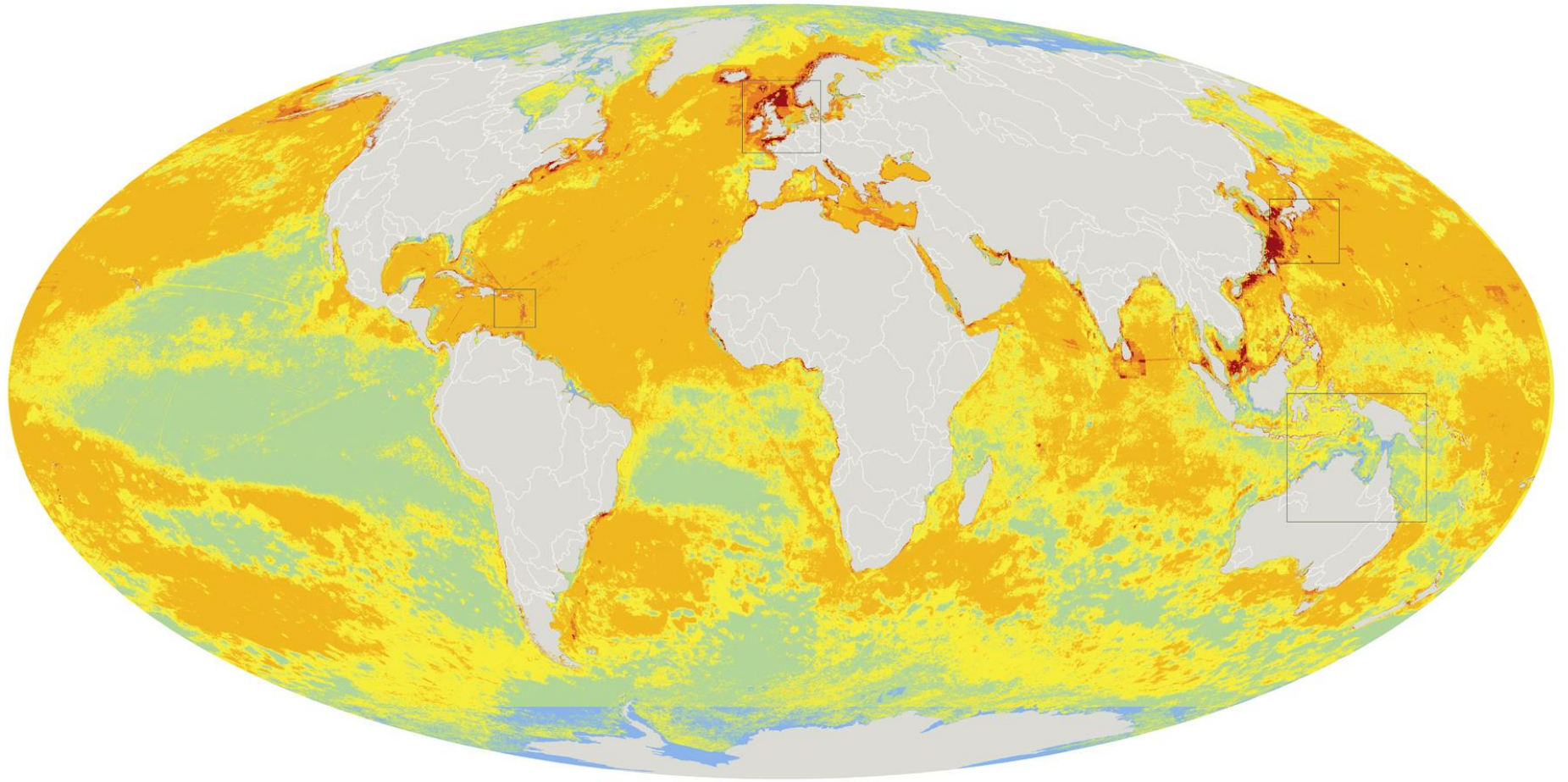
3. Ocean Use “Infrastructure” Providers

Financial, insurance, legal and other services that enable ocean industries to operate

World Ocean Use



World Ocean Impacts



The Ocean Business Community Challenge

- Ocean industries require access and social license for economic development of ocean space and resources
- Many of the critical issues creating impacts and affecting access and social license are cross-cutting or cumulative
- Advancing ocean economic development requires responsible use and stewardship by all users
- Best efforts by a single company, or an entire industry sector, are not enough to ensure ocean development can continue
- 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 “*Corporate Ocean Responsibility*”**
- 70+ members worldwide; 34,000+ in global network

Goal: Healthy, productive 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

SHIPPING

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

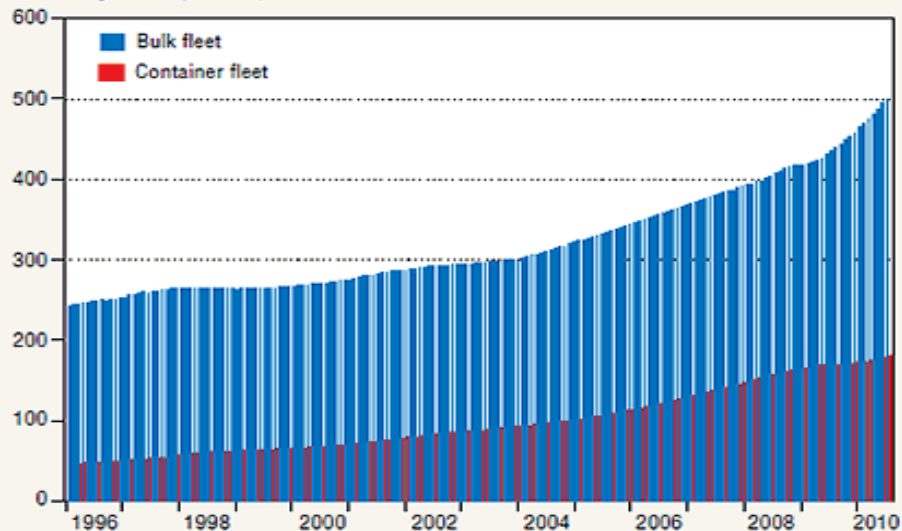
50,054 ships (2010)

- Bulk carriers, container ships, tankers, passenger ships

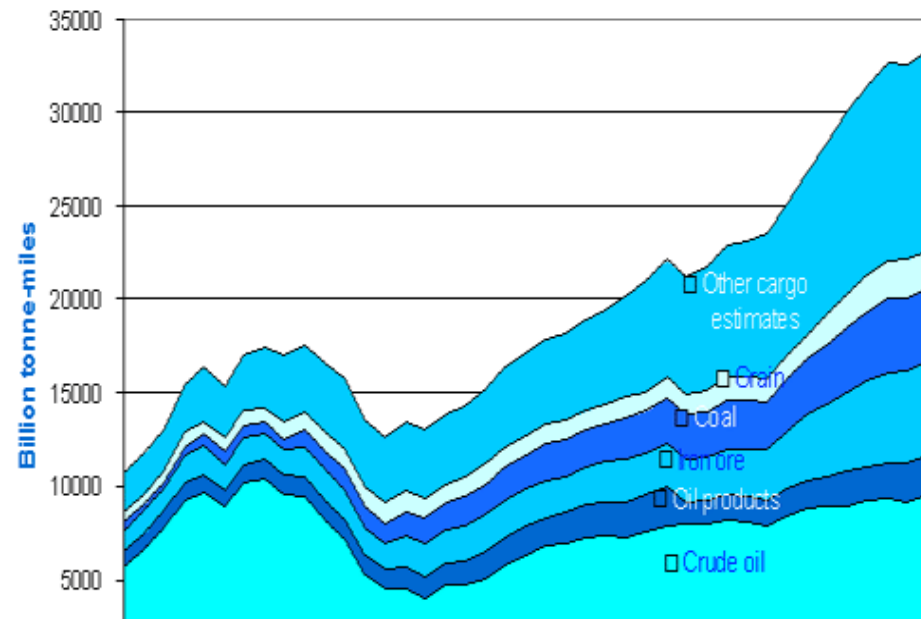


Dry Bulk and Container Ship Fleet Growth

Dead-weight tons (millions)



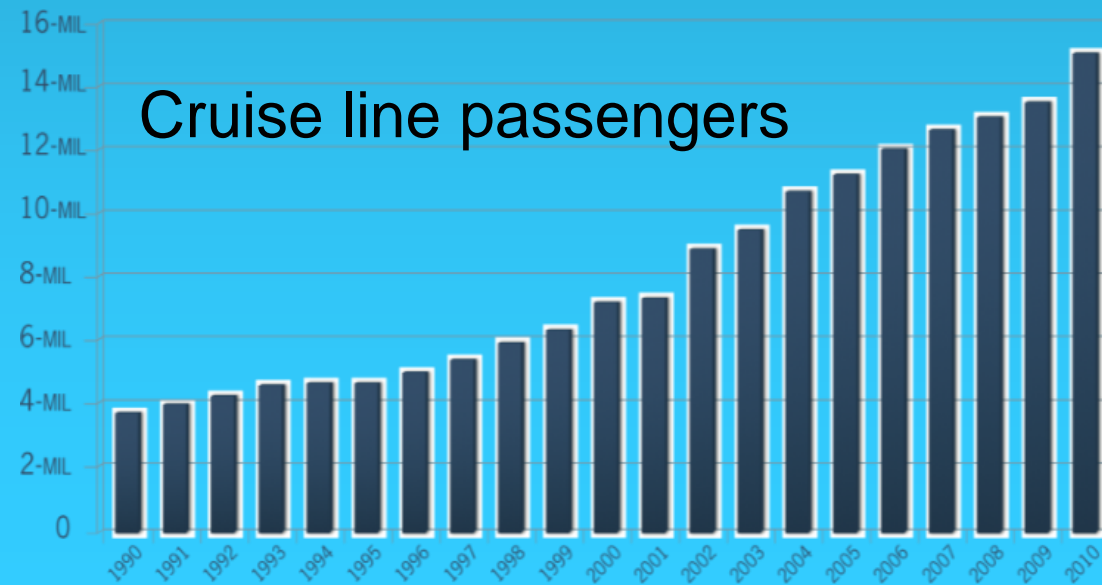
World seaborne trade 1969-2010



CRUISE LINE TOURISM

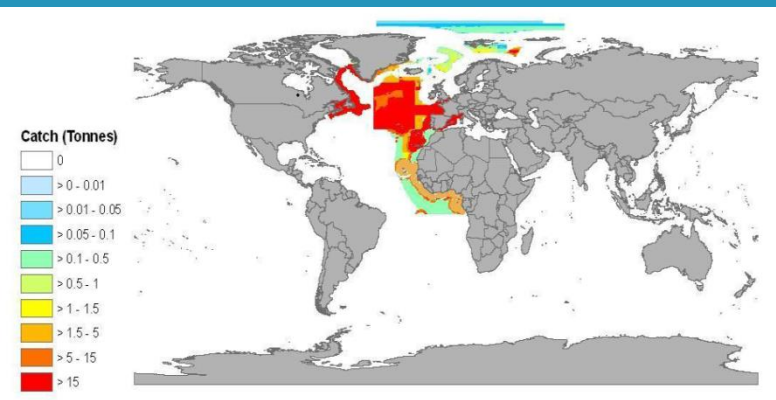
- **14 million passengers in 2010**
- **Growing at 8.5% per year over the next decade**
- Global fleet: 341 ships (92 megaships, > 2000 berths)
- 53 ships built in last 5 years (40 megaships)
- Europe: up 12% from 2009, now 33% of global market
- Asia: up 10-40% from 2009 in various countries
- New destinations: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

Cruise line passengers



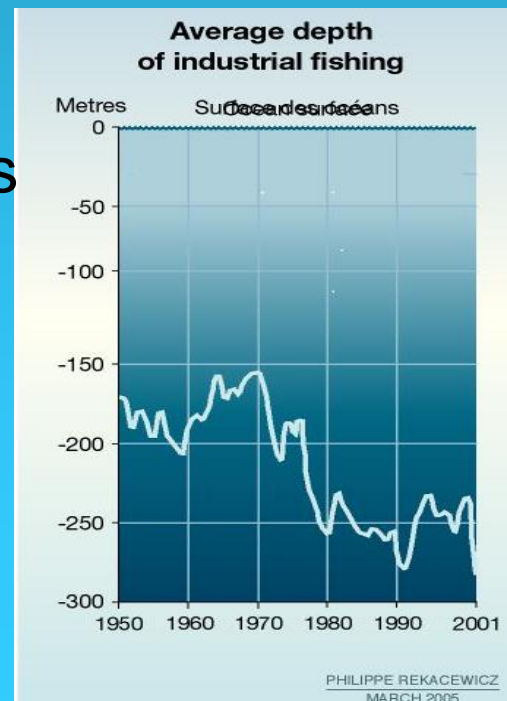
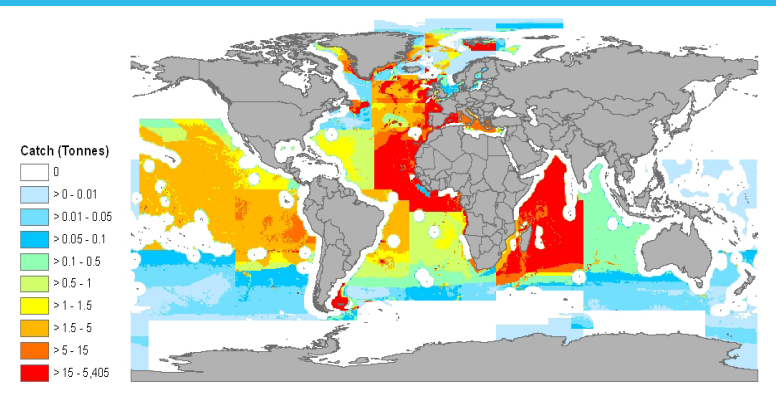
FISHERIES

Average catch areas: 1950s

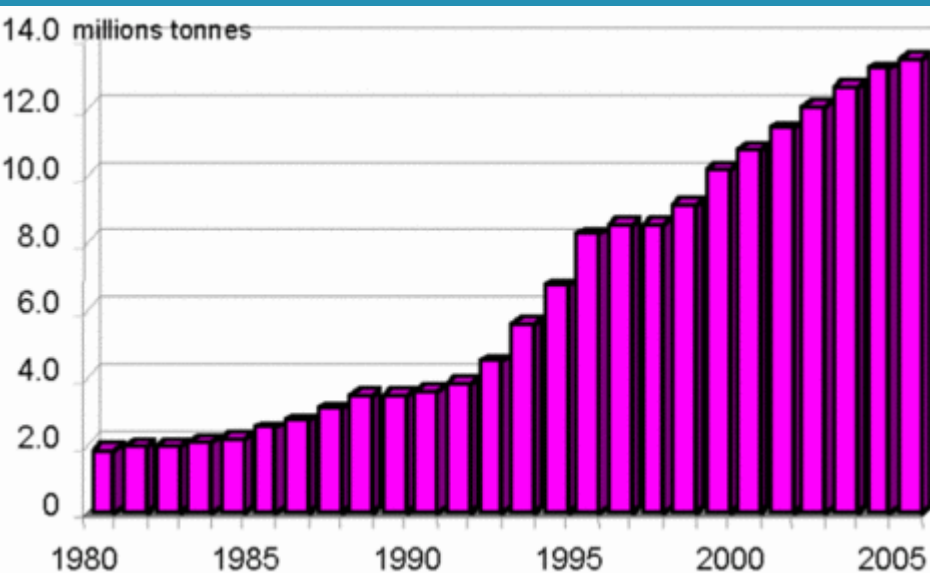


- 80 million tons (2008)
- \$ 80 billion value
- 35 million directly linked jobs
- Livelihoods for 300 million
- Further offshore, deeper

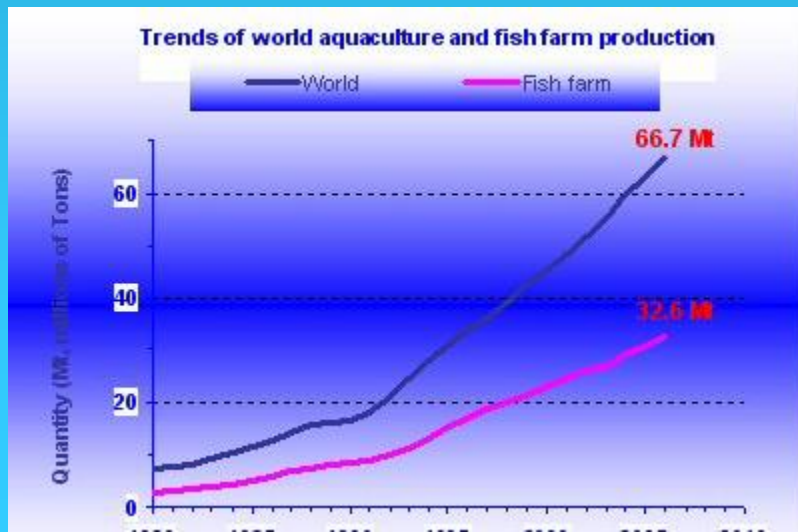
Average catch areas: 2000s



AQUACULTURE

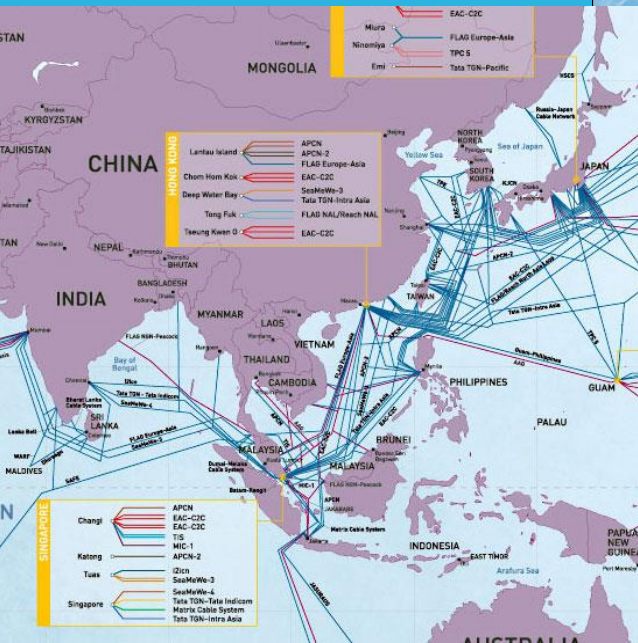
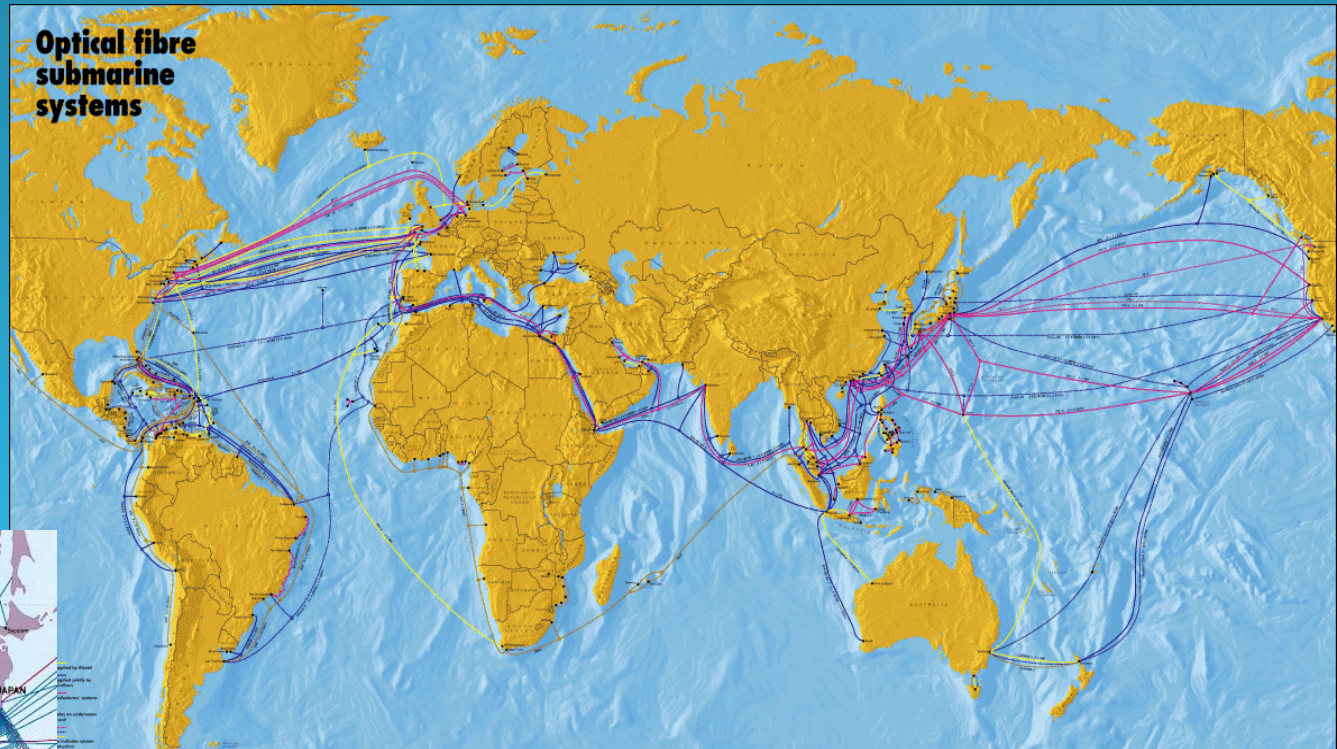


- Fastest growing global food production system
- 7.5%/year growth over past twenty years
- By 2030, 65% of fish protein
- Further offshore, deeper
- By 2050, 30 Mt/year of extra aquatic products required to feed the planet

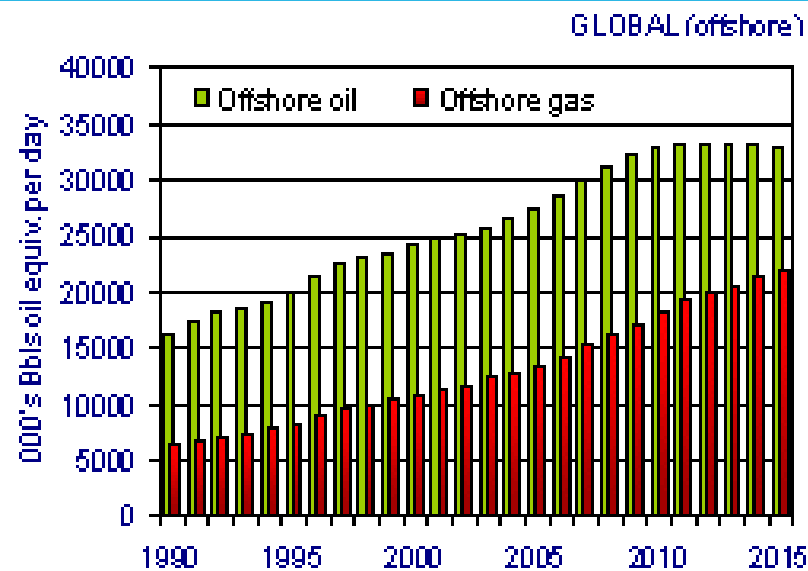
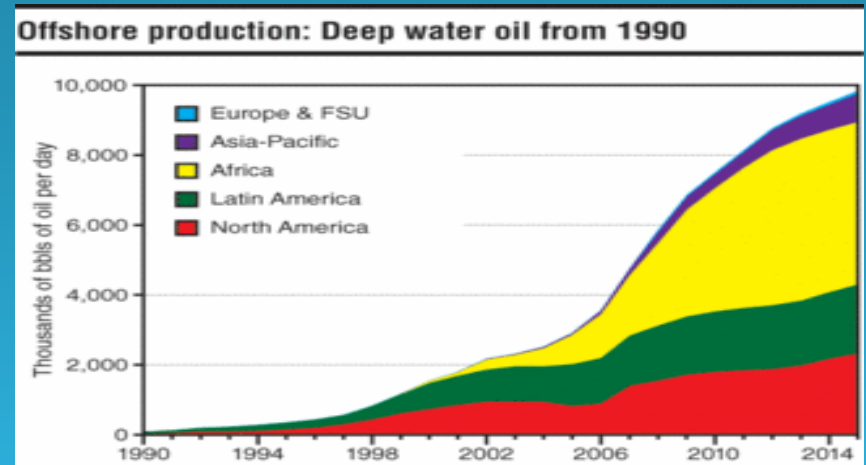
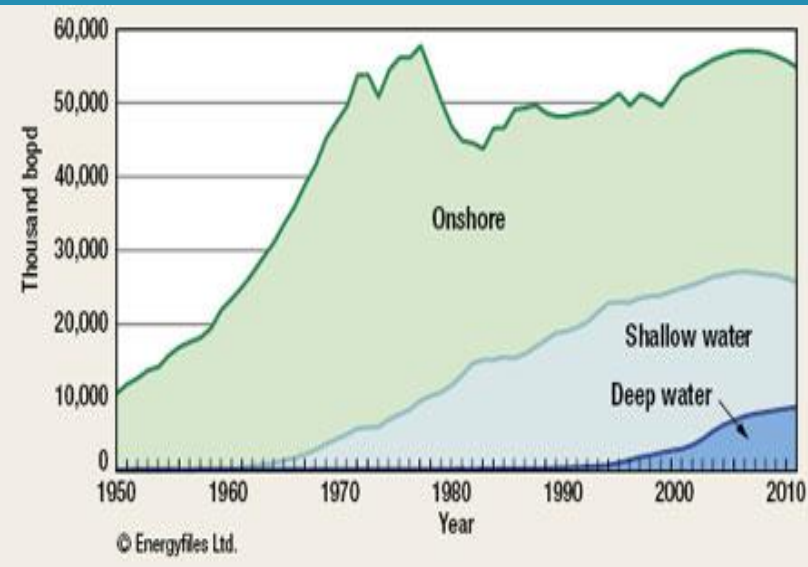


SUBMARINE TELECOM CABLES

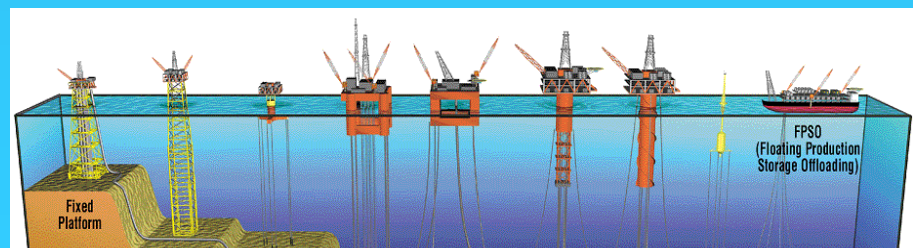
- More than 1 million km of cables
- 98% of international internet traffic



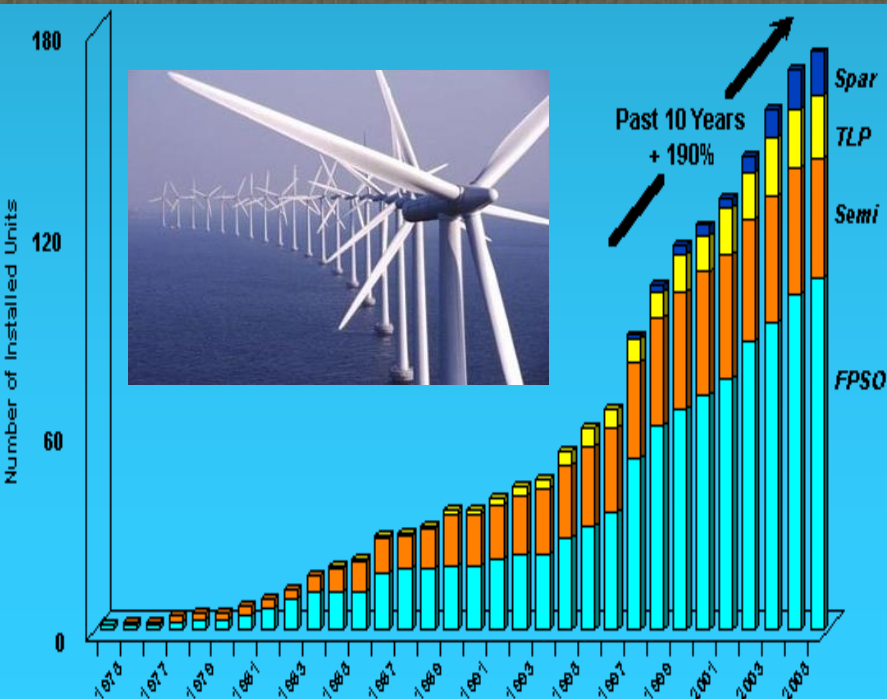
OIL AND GAS



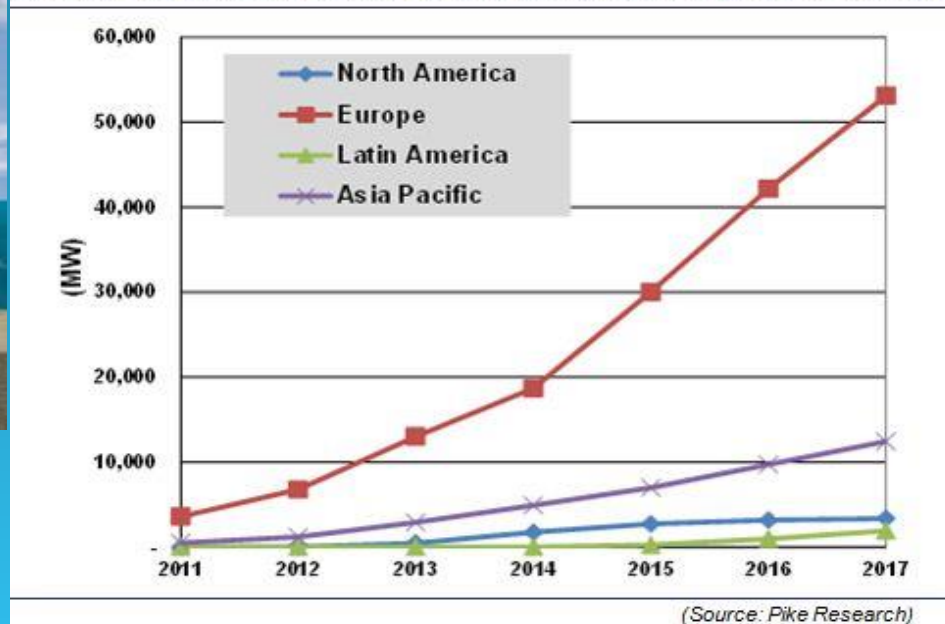
- Currently, 32% of global hydrocarbon production
- 45% of recoverable oil is offshore
- By 2035, deep-sea oil and gas production will double



OFFSHORE WIND ENERGY



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



- 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

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, will supply 1% of E demand
 - By 2050, will supply 15% of E demand



COASTAL CONSTRUCTION; DESALINATION

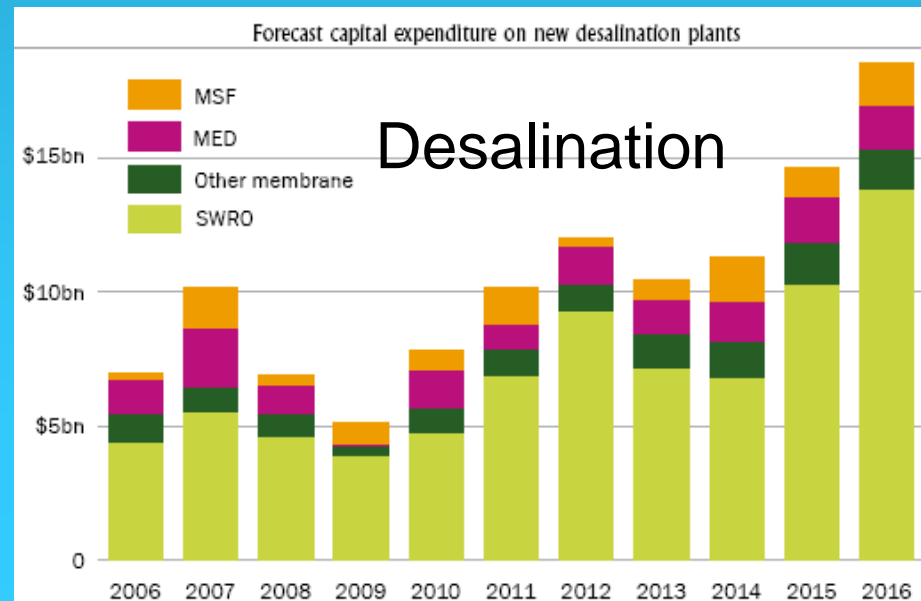
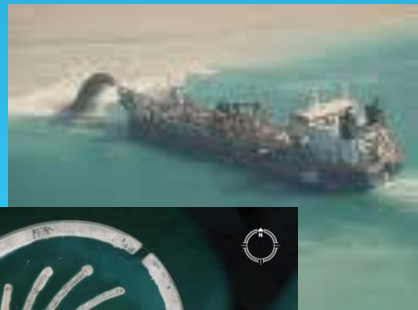
Desalination:

- Doubling every twenty years
- By 2025 demand is expected to exceed supply by 56%

Ports: new, expansion, improvement, deepwater, offshore

Coastal: Piers/jetties, shoreline protection

Dredging: extraction, maintenance, landfill, reclamation

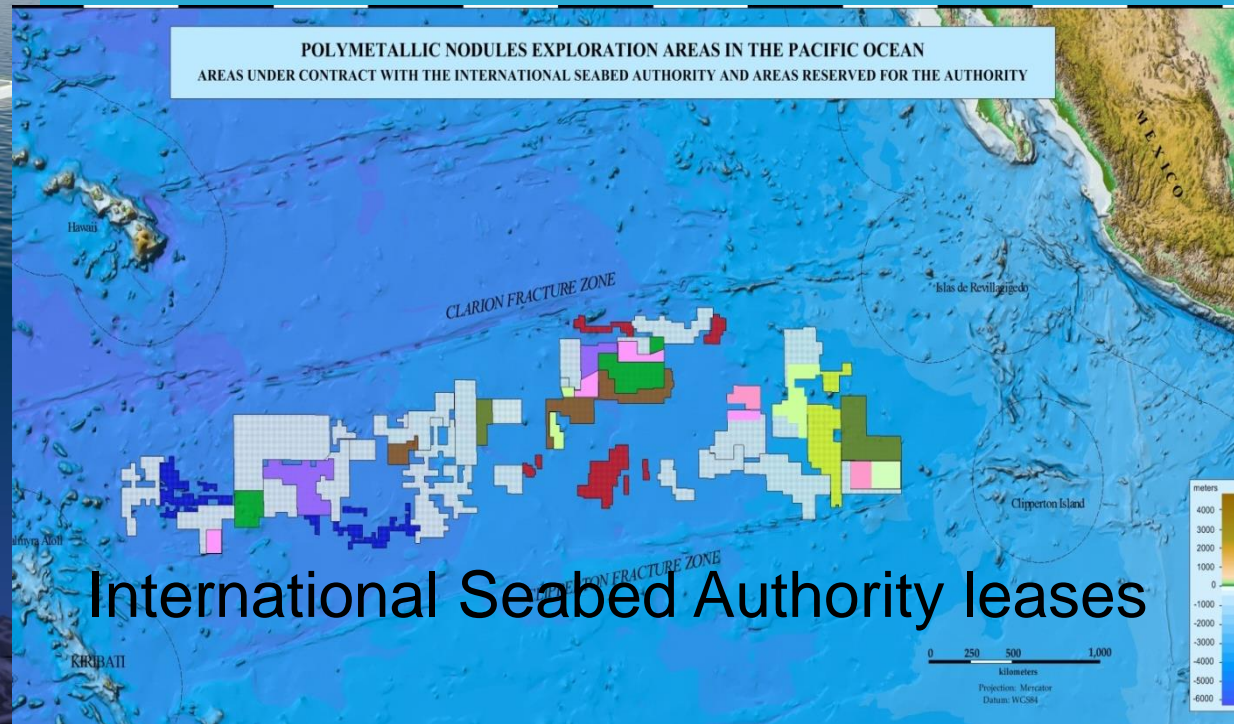
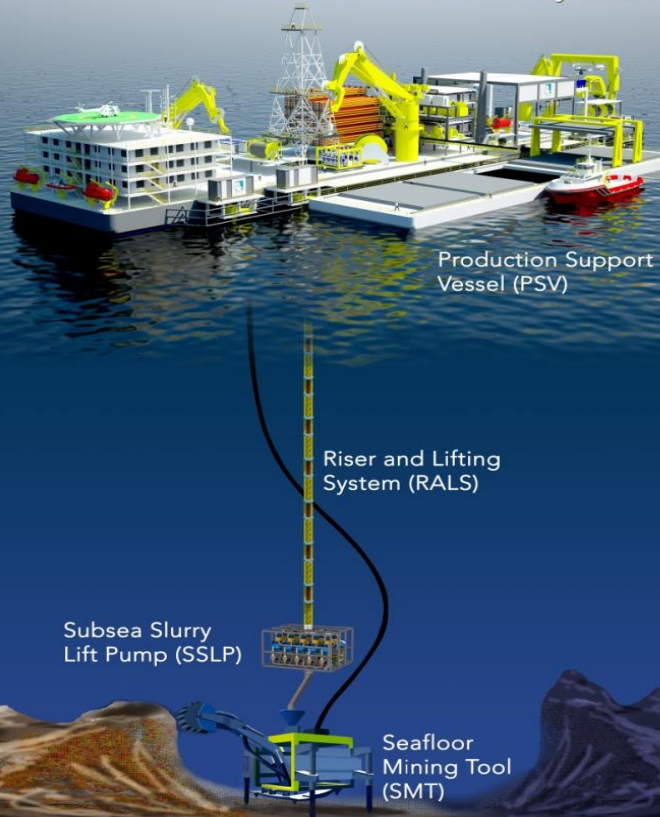


SEABED MINING

By 2020, 5% of world's minerals
By 2030:

- 10% of world's minerals
- \$12 billion in economic value

Seafloor Resource Production System



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-Business Leadership in Sustainable Development: *Regional Collaboration*

Regional Ocean Industry Leadership and Collaboration

- Arctic
- Western Indian Ocean/E Africa
- Benguela Current Region
- Mediterranean
- Caribbean
- Coral Triangle

How to best develop private sector leadership and collaboration groups in partnership with LMEs ?

WOC: Global Ocean Industry Leadership

Issue/Opportunity areas:

Ocean Policy and Governance

- UNCLOS/BBNJ; Convention on Biological Diversity, etc.

Marine Spatial Planning / Ocean Zoning

Operational Environmental Issues

- Sound and Marine Life
- Marine Mammal / Vessel Interactions
- Port Reception Facilities; Biofouling / Invasive Species

Smart Ocean / Smart Industries

- Data from Industry Vessels/Platforms of Opportunity

Sea Level Rise / Extreme Weather Events

- Port/coastal infrastructure adaptation and resiliency

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

Other Ship and Platform Opportunities

Oil and gas



Fisheries



Aquaculture



Offshore wind energy



Ferries



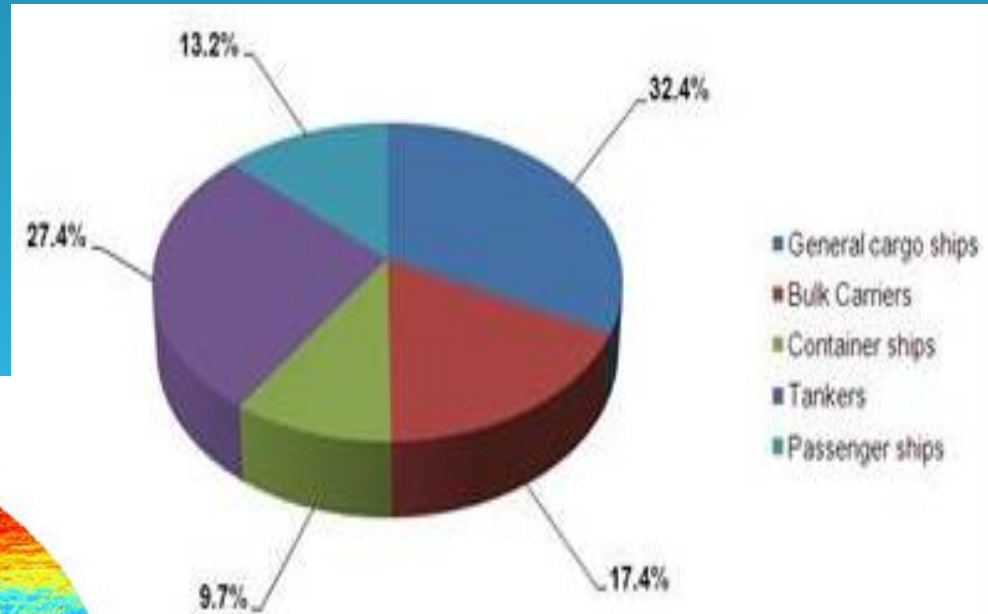
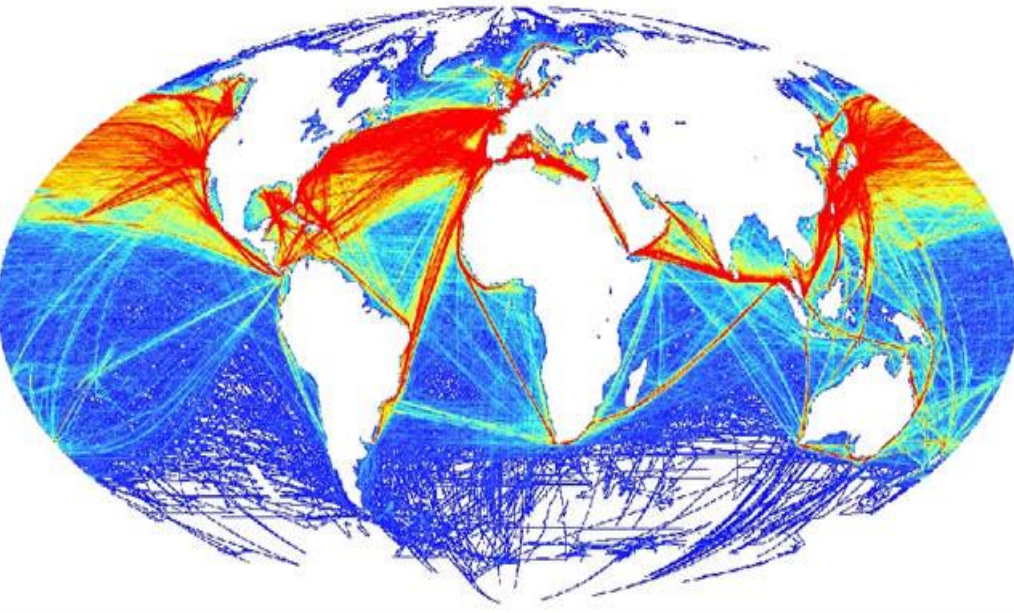
Wave/tidal energy



Opportunities of Ships

50,054 ships (Oct 2010)

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

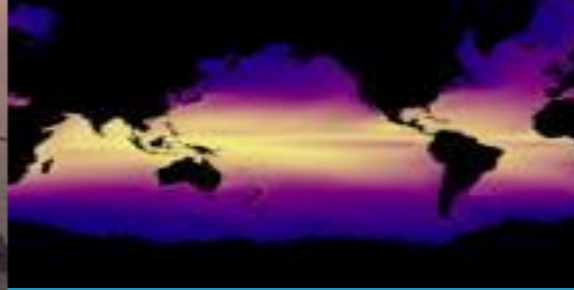


Figures in brackets are numbers of ships, by sector.
Source: IHS Fairplay October 2010

Smart Ocean-Smart Industries: How it works

WOC...

- **Engages institutions to identify:**
 - **Priority data collection needs and areas**
 - **Appropriate, cost-effective, suitable technology**
- **Identifies and recruits companies:**
 - **With vessels/platforms operating in priority areas**
 - **Interested hosting instruments / sharing data**
- **Develop pilot projects to put “Smart Industries” to work**
 - **Regional, e.g. Western Indian Ocean**
 - **Sector, e.g. Indonesia domestic shipping fleet**
 - **Parameters, e.g. ocean pH, bathymetry**
 - **Extreme weather or ocean events, e.g. tsunamis**



WOC 4th Sustainable Ocean Summit (SOS)

Rotterdam, 30 Nov-2 Dec 2016

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