

AQUACROSS Achieving Impact in Business

WORLD OCEAN COUNCIL

The International Business Alliance

for Corporate Ocean Responsibility



"The Ocean Sustainable Development Goal (SDG 14): Business Leadership and Business Opportunities"

29 November - 1 December 2017 / Halifax, Canada

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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





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



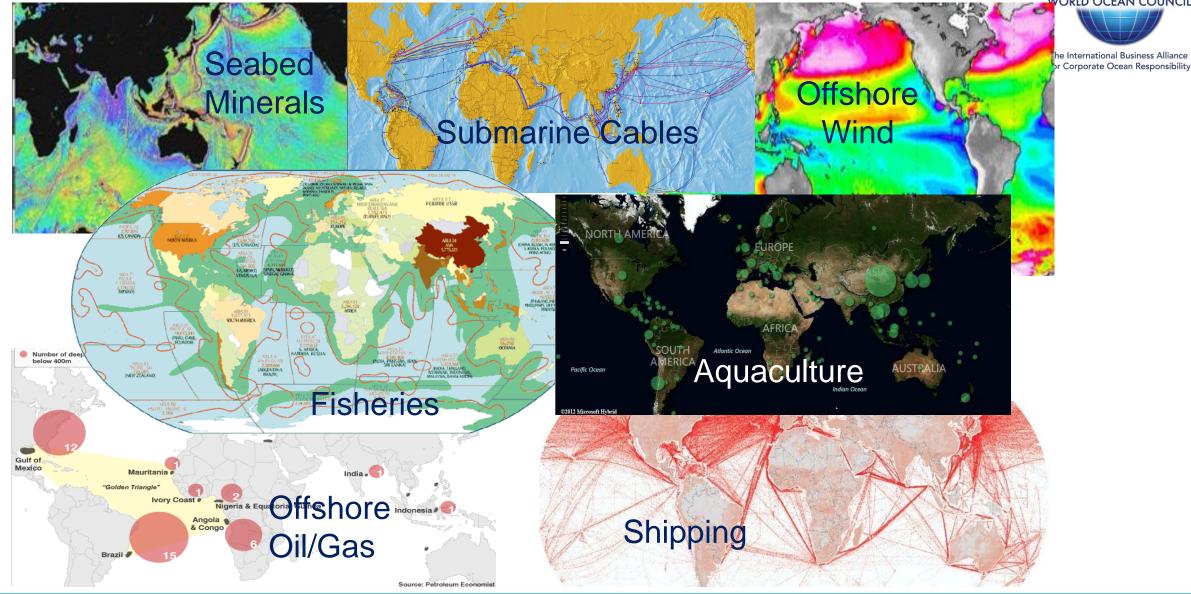
Who is Ocean Business Community ?

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- 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

World Ocean Use





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SHIPPING

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

50,054 ships (2010)

• Bulk carriers, container ships, tankers, passenger ships

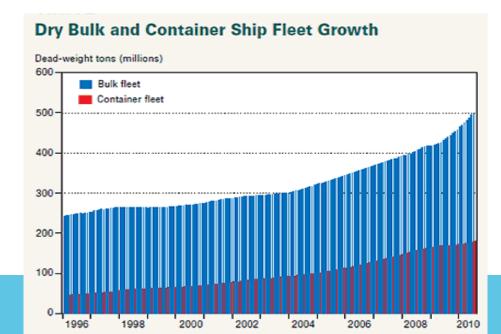


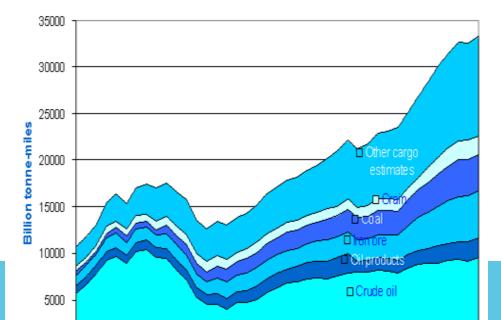






World seaborne trade 1969-2010



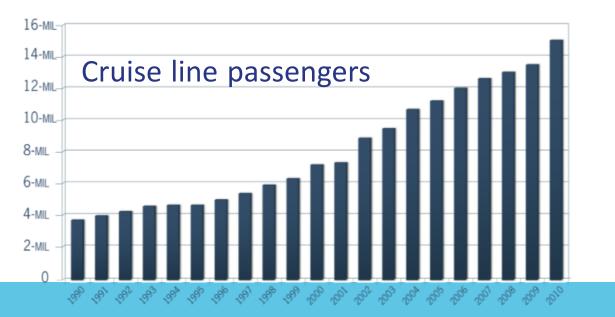




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CRUISE LINE TOURISM

- 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





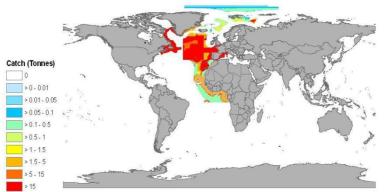




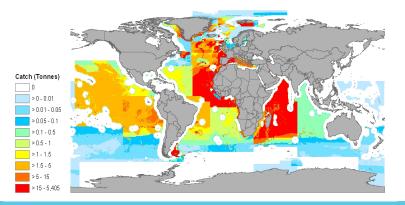
FISHERIES



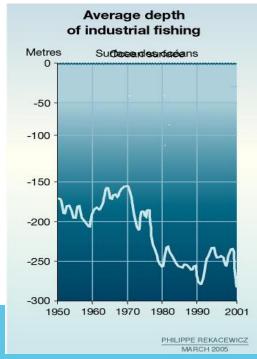
Average catch areas: 1950s



Average catch areas: 2000s



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

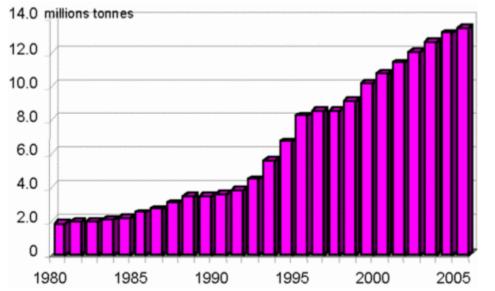


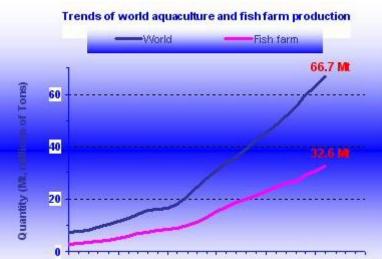




AQUACULTURE



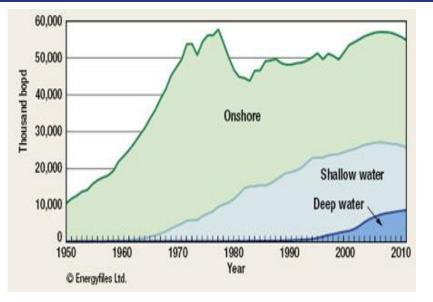




- Fastest growing food production system
- 7.5%/year growth over past twenty years
- By 2030, 65% of fish protein
- Further offshore, deeper
- By 2050, 30 Mt/year of extra aquatic products required to feed the planet

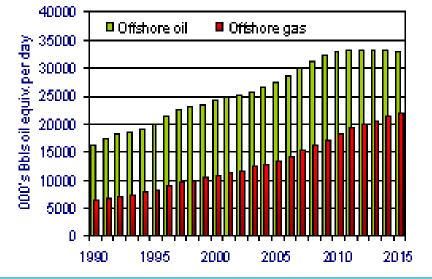


OFFSHORE OIL AND GAS

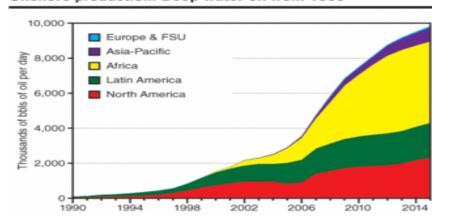


GLOBAL (offshore)

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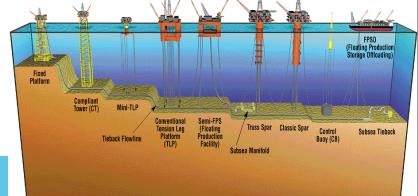


Offshore production: Deep water oil from 1990





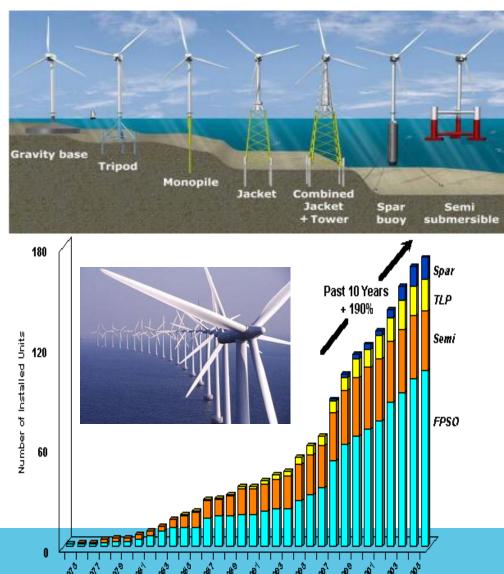
- Currently, 32% of global hydrocarbon production
- 45% of recoverable oil is offshore
- By 2035, deep-sea oil and gas production will double



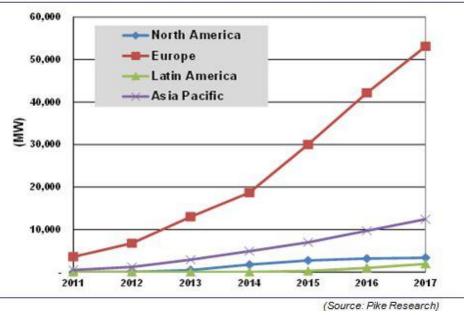
OFFSHORE WIND ENERGY

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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

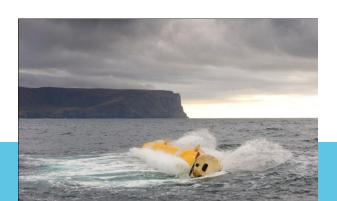
- Wave: 45,000 TWh/year
- Tidal: 1,800 TWh/year
- Thermal: 33,000 TWh/year
- Salinity gradient: 20,000 TWh/year

EU

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









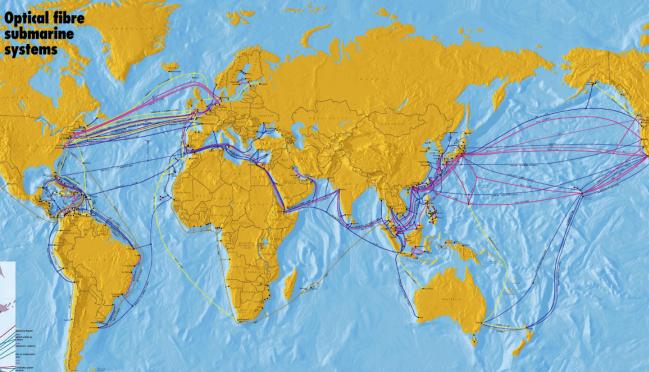


SUBMARINE TELECOM CABLES



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







COASTAL CONSTRUCTION;

Ports: new, expansion, improvement, deepwater, offshoreCoastal: Piers/jetties, shoreline protectionDredging: extraction, maintenance, landfill, reclamation

Desalination:

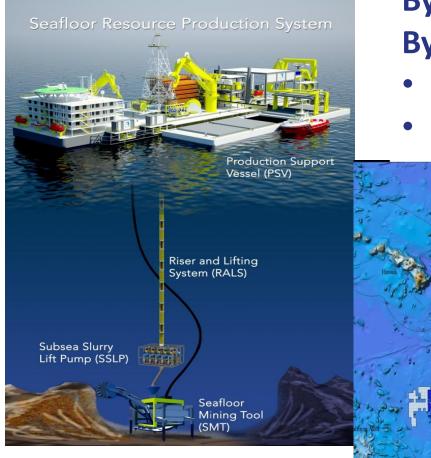
- Doubling every twenty years
- By 2025 demand is expected to exceed supply by 56%





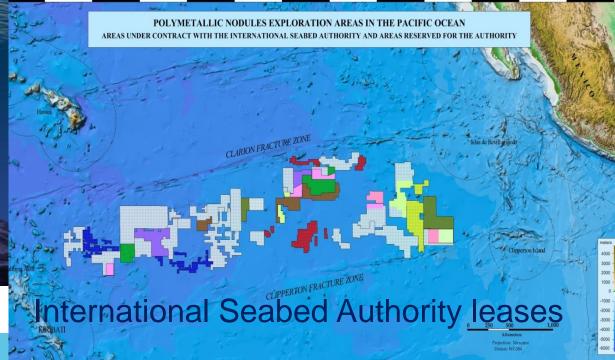
SEABED MINING





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

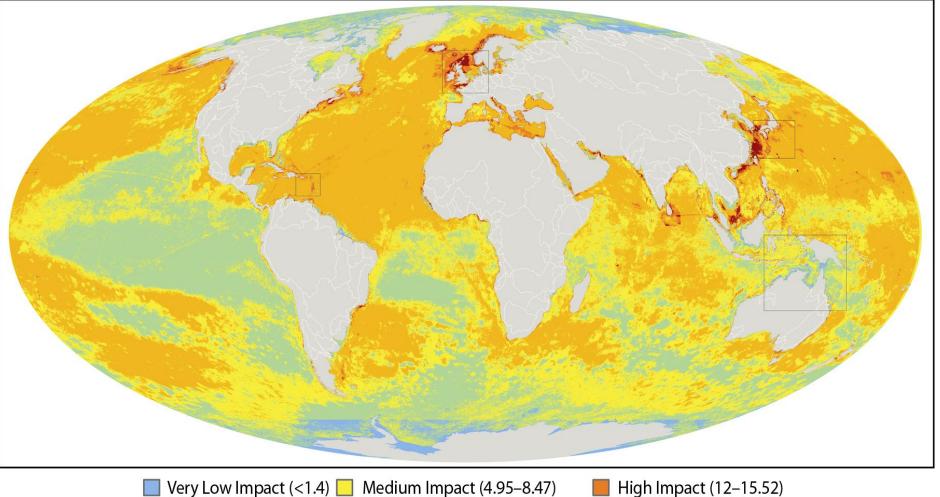
- 10% of world's minerals
- \$12 billion in economic value



World Ocean Impacts



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Low Impact (1.4–4.95) Medium High Impact (8.47–12) Very High Impact (>15.52)

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
- <u>Need structure/process</u> 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"
- 80+ members worldwide; 35,000+ in global network

<u>Goal:</u> 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

WOC: Global Cross Sector Platforms



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 Business Councils

Ocean Industry Leadership Priorities

Ocean Policy and Governance

UNCOS/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



Smart Ocean / Smart Industries

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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

Challenges

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✓ Lack of knowledge seen as significant barrier to efficient and intelligent preventive business practices: modelling, multisector collaboration and cooperation between industry and science is key to establishing these practices

✓ Business community likes to be with peers: examples from SOS

- \checkmark industry collaboration (green shipping association sessions)
- ✓ maritime clusters

✓ Need for more science to enable and accept a science based approach

✓ Need for coherent policies in a wholistic manner: e.g. biodiversity in BBNJ negociations and biodiversity for EU EEZ's



- ✓ Development of a knowledge center for business: website, webinars
- ✓ Ecosystem based Management at a regional level: Regional Business Councils model
- ✓ Mitigation approach on biodiversity well understood: (includes offsets)
- ✓ SDG's as a conduit to define targets and indicators in terms of EBM and Conservation
- ✓ Presentations at SOS conferences on projects and approaches





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SUSTAINABLE OCEAN SUMMIT

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