

### **Global Forum on Human Settlements**

### Blue Economy and Ocean Health: The Role of Ocean Business and Investment

Paul Holthus, CEO World Ocean Council paul.holthus@oceancouncil.org www.oceancouncil.org



The International Business Alliance for Corporate Ocean Responsibility

WOC 8<sup>th</sup> Sustainable Ocean Summit (SOS) 9-11 Dec 2020 Virtual Conference

WOC – the Global "Blue Economy" Business and Investment Organization

### World Ocean Council (WOC)

#### International, Cross-Sectoral Business Leadership Alliance



- Bringing together the global ocean private sector, e.g. shipping, tourism, fisheries, aquaculture, offshore energy, ports, legal, insurance, investment, etc.
- Catalyzing leadership, collaboration and action for "Corporate Ocean Responsibility"
- Formal recognition by UN and business entities, e.g. UNESCO IOC, WMO, IHO, ISA, ICC
- 75+ members globally; 100's of actively engaged companies; 34,000+ in global network
- "Ocean Investment Platform" brings together industry, investors and innovators
- <u>**Goal</u>: Healthy, productive global ocean and its sustainable use and stewardship by responsible ocean business community**</u>

#### **Creating business value for responsible companies**

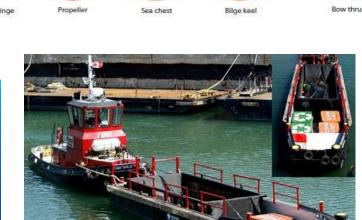
- Access and social license for responsible ocean use
- Synergies and economies of scale in addressing issues
- Stability and predictability in ocean operations

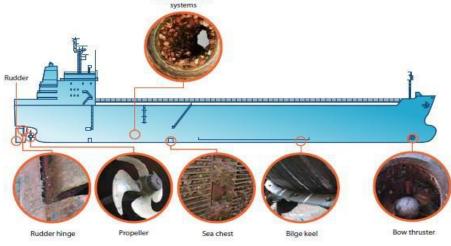
#### WOC – the Global "Blue Economy" Business and Investment Organization

### SDG/Sustainable Blue Economy Priorities (1)

- Improving Ocean Governance, Policy and Planning
  - UNCLOS/BBNJ, Convention on Biological Diversity, UNFCCC, SDGs, ...
  - Marine Spatial Planning
    - Cross-sectoral Conflicts/Synergies
- Reducing Anthropogenic Impacts
  - Biofouling/Invasive species
  - Marine sound
  - Plastics/Port Reception Facilities
- Ensuring Food Security
  - Sustainable fisheries
  - Reduced IUU fishing
  - Sustainable aquaculture









The International Business Alliance for Corporate Ocean Responsibility

### SDG/Sustainable Blue Economy Priorities (2)

- Addressing Climate Change
  - Ocean Restoration: Negative Emissions Tech/Carbon Sequestration
- Reducing Disaster Risk
  - Port/coastal infrastructure adaptation and resilience
- Advancing Low Carbon Energy from the Sea
  - Ocean-based renewable energy
- Conserving Marine Biodiversity
  - Marine protected areas
  - Coral reef/Marine mammal impacts
- Improving Ocean Knowledge (SDG14a)
  - SMART Ocean SMART Industries:
    - Data collection from industry "Ships/Platforms of Opportunity"

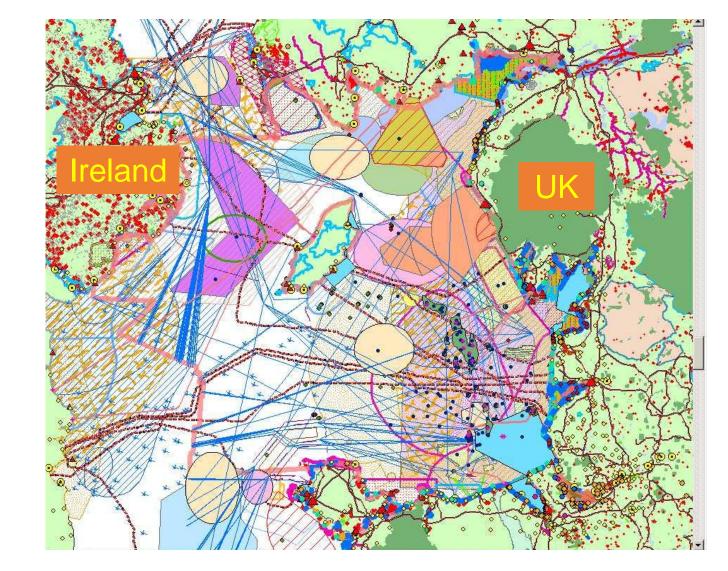


WORLD OCEAN COUNCIL

The International Business Alliance for Corporate Ocean Responsibility

#### The Sea is Crowded with Many Uses

- Tourism
- Oil & gas
- Coastal defence
- Ports & navigation
- Military activities
- Culture
- Conservation
- Dredging & disposal





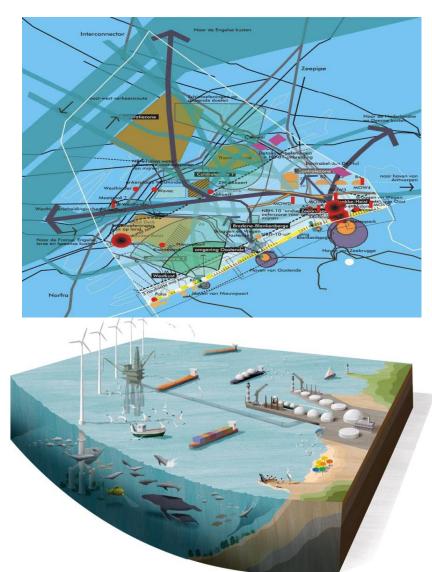
- Submarine cables
- Fishing
- Renewable energy
- Marine recreation
- Mineral extraction
- Mariculture

### Marine Spatial Planning and Coastal Cities

- Create a clear business understanding about MSP
- Examine how MSP has worked and the role of business
- Define and examine the potential business impacts and benefits of MSP
- Determine how industry can optimize potential MSP benefits and minimize the impacts
- Ensure the ocean business community is fully informed of MSP process and plans
- Develop a coordinated business community strategy and action plan for engaging in MSP
- Ensure MSP takes into account responsible ocean economic activities



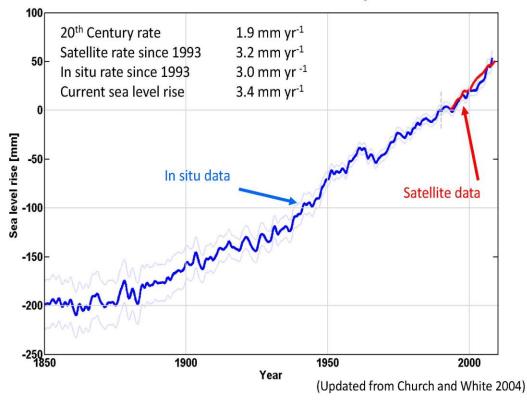
The International Business Alliance for Corporate Ocean Responsibility



#### Sea Level Rise



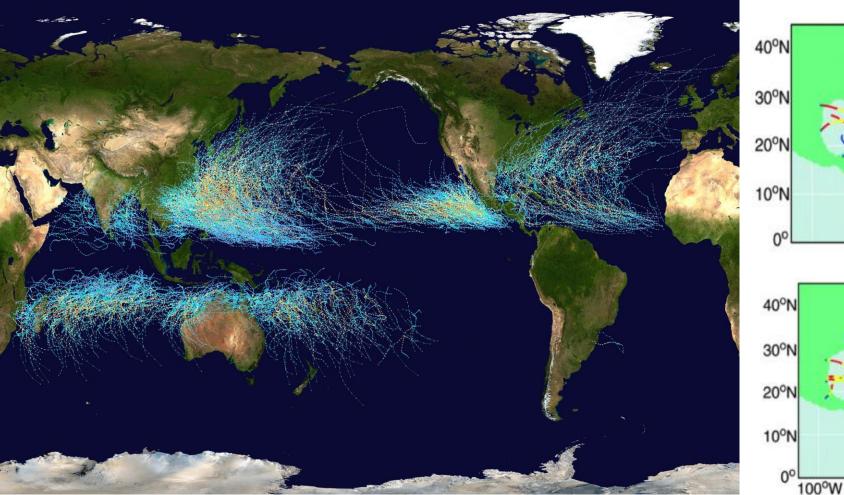
#### Sea Level Rise acceleration during the 20<sup>th</sup> Century

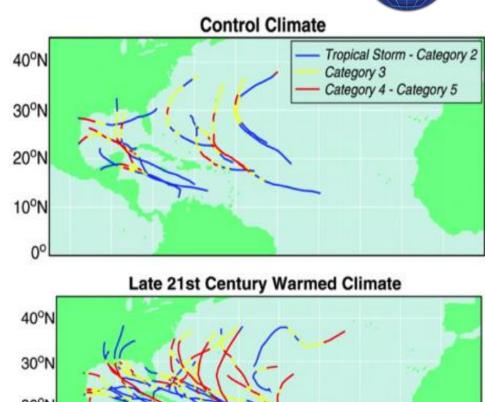


#### VISUALIZING GLOBAL SEA LEVEL RISE EFFECTS

SEA LEVEL FACTORS	
Thermal Expansion	
Ice Sheet Melt Rate	Maximum 33.3
Glacier Melt Rate	29.1 Geo/Topo Factors Tides
Global Temperature	25.0 Storms
Carbon Dioxide	20.8 IS or Methane
Methane & Other GHG's	16.6 - Base Sea-level Rise
Global Albedo	
Storm Intensity Tidal Fluctuation	
Storm Surge Height	
Geographic/Topographic	
	LOCATION Local Regional National Cobal

#### **Extreme Weather Events**





60°W

80°W

NWS Version (GFDL)

WORLD OCEAN COUNCIL

18 Model Ensemble

20°W

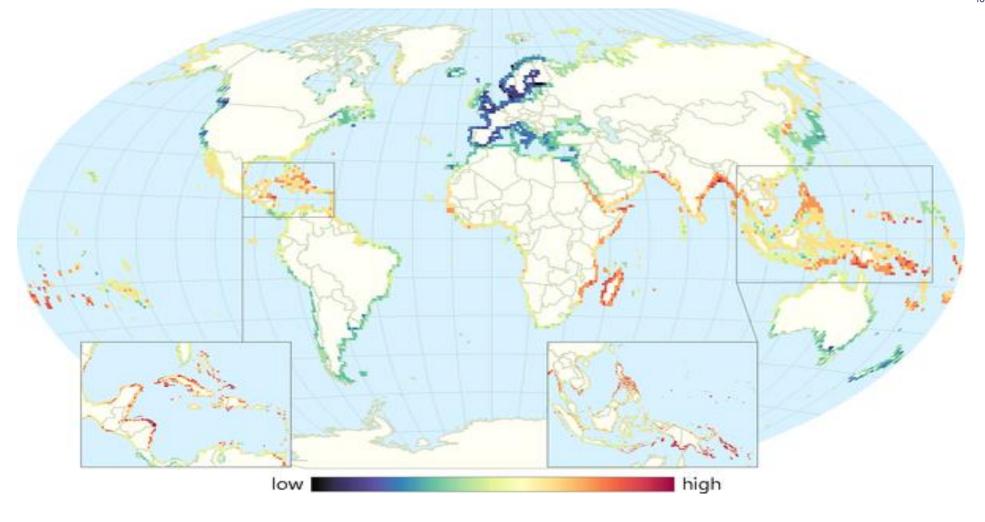
40°W

# Coastal Community Vulnerability

#### To Sea Level Rise and Tropical Storms



The International Business Alliance for Corporate Ocean Responsibility



#### Coastal/Marine Infrastructure





#### COASTAL CITIES The International Business Alliance for Corporate Ocean Responsibility COASTAL COMMUNITIES

- Ports
- Roads
- Airports
- Railroads
- Power stations
- Electrical grid
- Offshore wind turbines
- Aquaculture facilities
- Submarine cables
- Refineries
- Fuel storage/delivery
- Marinas

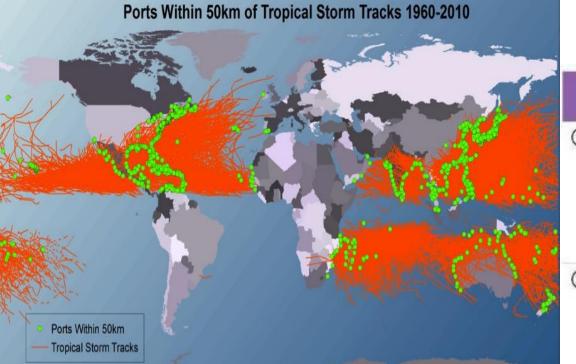
#### Coastal/Marine Economic Activity





### Coastal/Marine Infrastructure and Climate Change





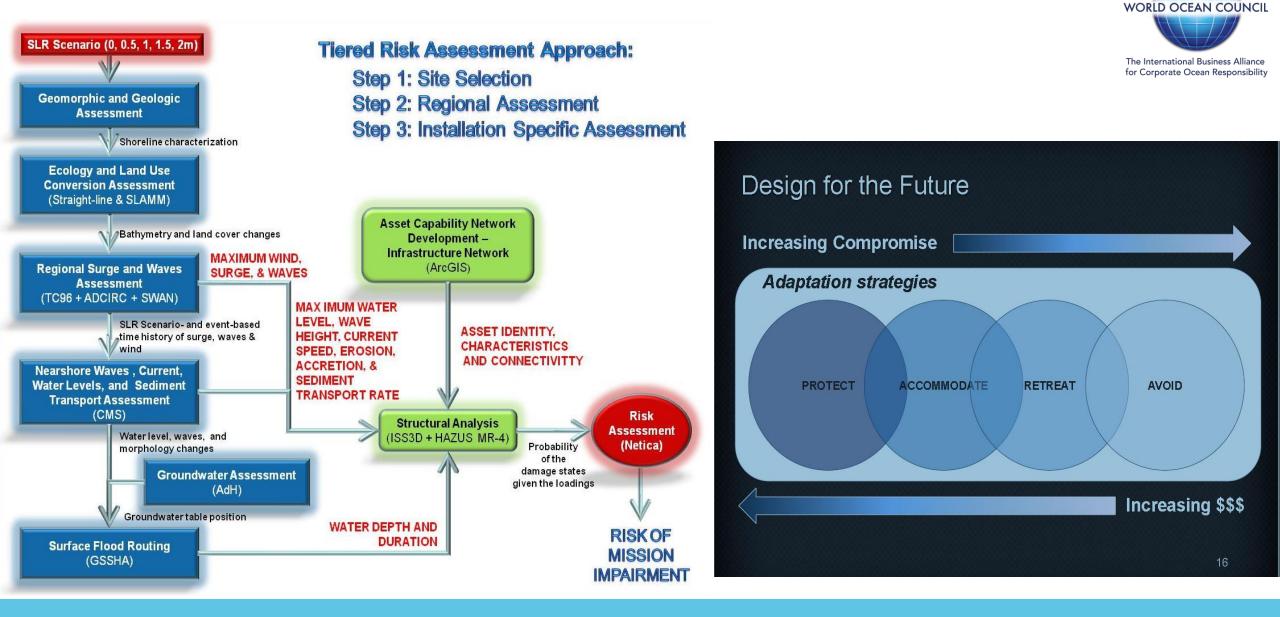


		The International Business Alliance for Corporate Ocean Responsibility
	EXAMPLES OF IMPACTS ON MARINE TRANSPORT	CLIMATE FACTOR(S)
1	Flooding and/or damage to port facilities	<ul> <li>Extreme precipitation (heavy rainfall) and associated standing water</li> <li>Storm surges/sea level rise, erosion in coastal areas</li> <li>Freezing rain (ice-scour damage on dock structures and visual navigational aids)</li> <li>Low water levels (damage and accelerated decay of exposed infrastructure)</li> </ul>
2	Increased or reduced access to ports, dredging requirements	<ul> <li>Increasing sea levels (e.g., Atlantic Canada and British Columbia) permitting entry of heavier vessels (deeper drafts)</li> <li>High water levels inhibiting passage of vessels under bridges</li> <li>Decreasing sea levels (e.g., Hudson Bay) and lower freshwater levels (e.g., Great Lakes) inhibiting access by heavier vessels</li> </ul>
3	Hazards to vessel navigation – storms and wind events (waves)	<ul> <li>Wave action (difficulty maneuvering vessels)</li> <li>Melting sea ice (open water worsening the impact of storms and wind events)</li> </ul>
4	Hazards to vessel navigation – detached sea ice	<ul> <li>Melting ice (detached sea ice moving into unexpected areas)</li> </ul>
5	Longer or shorter shipping season	<ul> <li>Earlier ice break-up/later freeze-up (longer navigation season), later ice break-up/earlier freeze-up (shorter season)</li> </ul>
6	New navigation opportunities	<ul> <li>Melting sea ice (creating open water where navigation was previously not possible)</li> </ul>

#### Coastal Infrastructure meets Climate Change



#### Coastal/Marine Adaptation



## "Grey, Green, Blue" Coastal/Marine Adaptation

World Ocean Council "Grey, Green, Blue Infrastructure Strategy":

- **1) Grey Infrastructure** the "hard" port and coastal built structures and facilities
- 2) Green Infrastructure "Nature-Based Solutions" that harness the potential for natural systems to protect and maintain the integrity of coastal areas, i.e.
  - coral reefs
  - tidal marshes/coastal wetlands
  - mangroves
  - seagrass beds













### Business/Investment Leadership in

### Addressing Coastal Adaptation (1)



- 1) Driving the need for resiliency
  - **Coastal/marine infrastructure is essential** to a wide range of industries
  - These industries all suffer business losses when infrastructure is damaged and inoperable due to the effects of climate change
  - Insurance industry has a major incentive for improved understanding and action to reduce the risk that SLR and extreme weather events create for coastal/marine infrastructure
  - All this drives the need for coastal/marine adaptation to climate change impacts

#### 2) Planning for adaption –

- **Private sector planning and engineering firms** have the expertise and services to develop plans for coastal infrastructure adaptation
- Including green infrastructure/nature-based solutions

### Business/Investment Leadership in

## Addressing Coastal Adaptation (2)



- 3) Undertaking adaption –
- Private sector engineering, construction and marine/coastal resource restoration and management firms deliver the actual adaptation projects
- 4) Financing adaptation –
- **Significant financing is needed** to advance coastal/marine infrastructure and ecosystem-based adaptation
- Private sector finance may often need to be in partnership with public or other sources, such as through Blended Finance or Public-Private Partnerships (PPP)

#### WOC Working Group on Port and Coastal Infrastructure Adaptation/Resiliency

- WOC is developing a global business and investment leadership group on advancing the Adaptation and Resiliency of Ports and Coastal Infrastructure
- Especially in developing countries and Small Island Developing States (SIDS)

#### Ocean Business and Investment Action

#### **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
- Creating a network of ocean innovation accelerators, incubators, etc.



#### WOC Ocean Investment Platform

- Bringing together ocean industries, innovators and investors to accelerate Blue Economy financing
- WOC "Ocean Funds Roundtable": Convening the growing number of investors/funds focused on ocean sustainable development to identify common issues, share best practices, develop shared tools/methods
- WOC "Ocean ESG": Creating common international categories, criteria, metrics, indicators, impact measures, etc.
- WOC "Global Blue Economy Innovation Initiatives Network": Connecting and catalyzing synergies among the growing number of ocean-sustainability related accelerators, incubators and challenge competitions

#### Bringing value by:

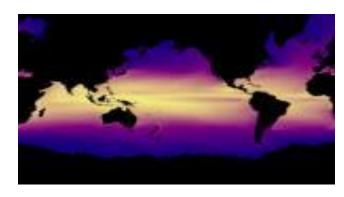
- Facilitating synergies and economies of scale among investors, innovation initiatives to more effectively address ocean sustainable development needs
- Providing a common process to identify, articulate and evaluate ocean industry priorities for investment in innovative sustainability solutions













# WOC 8<sup>th</sup> Sustainable Ocean Summit (SOS) 9-11 Dec, 2020 ~ Virtual Conference

Paul Holthus, CEO

World Ocean Council

paul.holthus@oceancouncil.org

www.Oceancouncil.org

WOC – the Global "Blue Economy" Business and Investment Organization