

# **Port Reception Facilities: An International, Multi-Industry Working Group to Drive Action and Solutions**

**Paul Holthus**

CEO

World Ocean Council

*paul.holthus@oceancouncil.org*

**Ginger Garte**

Americas Environmental Manager

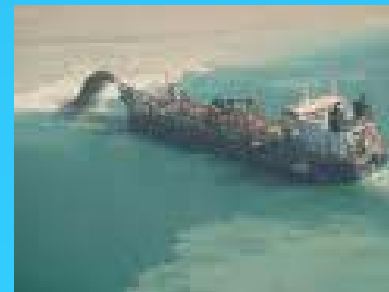
Lloyd's Register Group

*ginger.Ggarte@lr.org*



The international business alliance  
for “Corporate Ocean Responsibility”

# The Multiple Use Ocean



# Growing Ocean Use

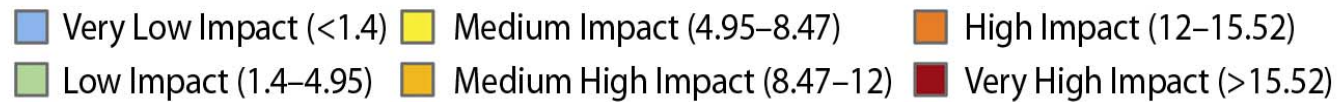
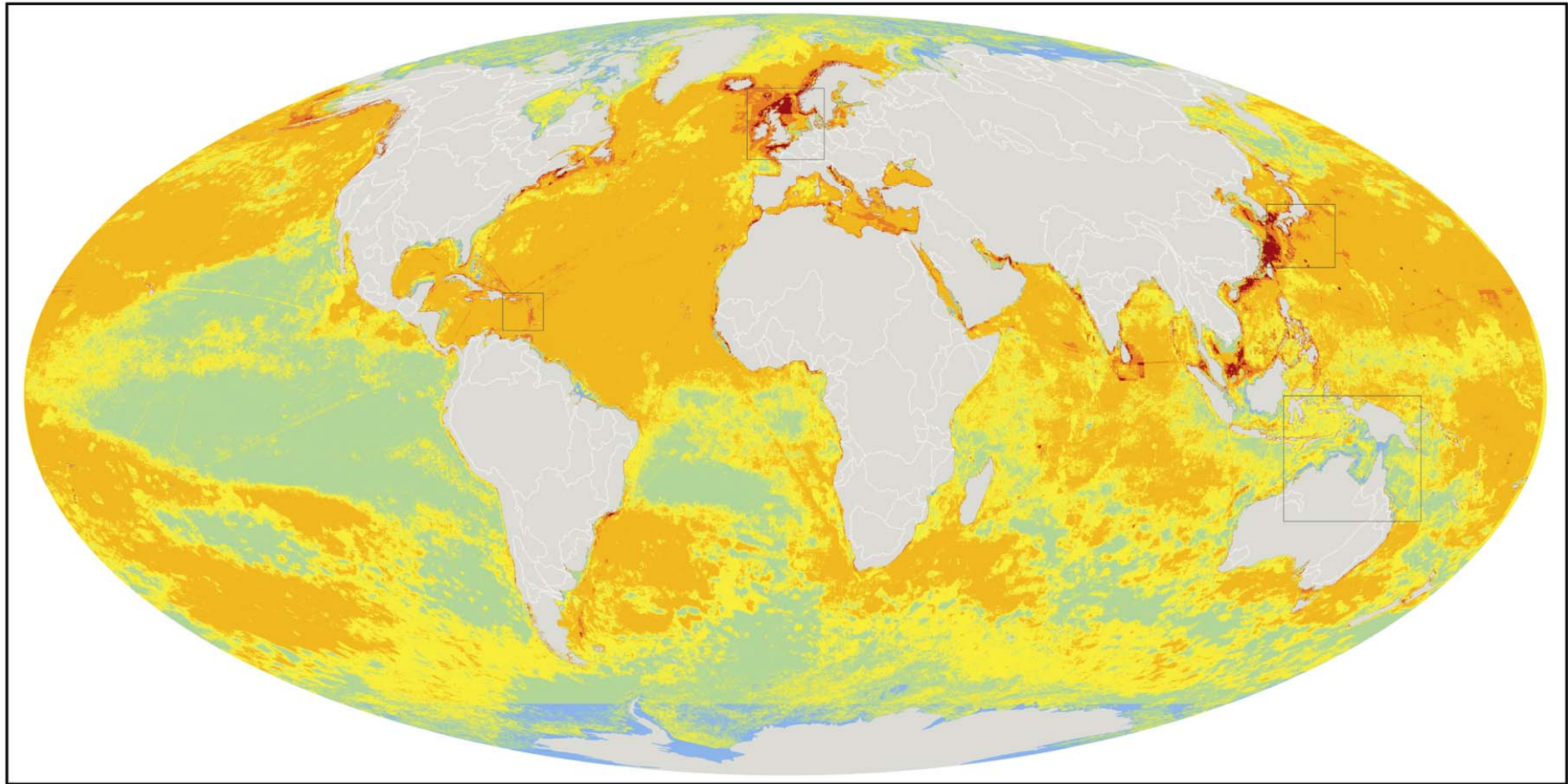
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- Shipping
- Offshore oil and gas
- Fisheries
- Cruise and coastal tourism
- Aquaculture
- Mining
- Dredging
- Submarine cables/pipelines
- Offshore wind energy
- Wave/tidal energy
- Ports/marinas
- Recreational/sport boating
- Desalination
- Carbon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

## Expanding

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

# Global Marine Ecosystem Impacts



# The Ocean Business Community Challenge

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- Ocean industries require access and the social license
- Many critical issues are cross-cutting or cumulative
- Ocean health requires responsible use by all users
- The best efforts by a single company, or an entire sector, are not enough
- Ocean industries will benefit from collaboration among sectors to develop synergies and economies of scale
- Lack of a structure and process for industry leadership and collaboration

# World Ocean Council

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## International, Cross-Sectoral Business Leadership Alliance

- Bringing ocean industries together, e.g. shipping, oil/gas, fisheries, aquaculture, tourism, offshore renewables, etc.
- Catalyzing leadership and collaboration in addressing ocean sustainability - “*Corporate Ocean Responsibility*”

**Goal** A healthy and productive global ocean and its sustainable use, development and stewardship by a 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

<b>Almi Tankers S.A.</b>	<b>Global Trust Certification</b>	<b>Ocean Nourishment</b>
<b>A.P. Moller-Maersk A/S</b>	<b>Golder Associates</b>	<b>Ocean Peace Inc.</b>
<b>Arctic Fibre</b>	<b>Guangxi Panshibao Co., Ltd</b>	<b>OceanNetworks Canada</b>
<b>Baird Publications</b>	<b>Heidmar, Inc.</b>	<b>OneOcean</b>
<b>Battelle Memorial Institute</b>	<b>Hepburn Biocare</b>	<b>PanGeo Subsea</b>
<b>Beveridge &amp; Diamond, P.C.</b>	<b>Holman Fenwick Willan LLP</b>	<b>Powerboat P1</b>
<b>BigBlueStuff</b>	<b>Hull Surface Treatment</b>	<b>RightShip</b>
<b>Birds Eye – Igloo</b>	<b>Hydrex</b>	<b>Rio Tinto</b>
<b>Blank Rome</b>	<b>Intl Chamber of Shipping (ICS)</b>	<b>Royal Greenland A/S</b>
<b>BP</b>	<b>Intl Tankers Owners Pollution Fed. (ITOPF)</b>	<b>Sanford Limited</b>
<b>Cape Breton University</b>	<b>JASCO Applied Sciences</b>	<b>Shell</b>
<b>Cape Cod Commercial Hook Fishermen’s Assn.</b>	<b>L3 MariPro</b>	<b>Shipping HK Forum Ltd</b>
<b>Caris USA Inc.</b>	<b>Lloyds Register</b>	<b>Sinclair Knight Merz</b>
<b>China Navigation Company/Swire Pacific Offshore</b>	<b>Louisbourg Seafoods</b>	<b>Southall Env’tal Assoc (SEA)</b>
<b>CSA Ocean Sciences Inc.</b>	<b>M3 Marine (Offshore Brokers) Pte Ltd</b>	<b>SubCtech</b>
<b>Det Norske Veritas (DNV)</b>	<b>Manson Oceanographic</b>	<b>Tai Chong Cheang (TCC) Steamship Co HK</b>
<b>EcoStrategic Consultants</b>	<b>Marinexplore</b>	<b>Teck Resources</b>
<b>EDP Renewables</b>	<b>Marine Acoustics, Inc.</b>	<b>TierraMar Consulting</b>
<b>Eniram</b>	<b>Mitsubishi Heavy Industries</b>	<b>TOTAL</b>
<b>ESRI</b>	<b>Nautilus Minerals, Inc.</b>	<b>Total Marine Solutions</b>
<b>Executive MBA in Shipping/Logistics</b>	<b>Noble Group Limited</b>	<b>Twin Dolphins</b>
<b>ExxonMobil</b>	<b>N America Marine Env’t Protection Assn.</b>	<b>Univ. Texas Marine Science Inst.</b>
<b>FOB</b>		<b>Zodiac Maritime</b>

# Ocean Industry Leadership Priorities

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## 1. Ocean Governance

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

## 2. Marine Spatial Planning (MSP)

- US; EU; Australia, etc.

## 3. Operational Environmental Issues

- Port Reception Facilities
- Biofouling
- Marine Sound
- Marine Mammal - Vessel Interactions

## 4. Regional Ocean Business Councils

- Arctic; Caribbean; Mediterranean; Baltic; Arab Gulf, etc.

## 5. Smart Ocean / Smart Industries

- Data from Vessels/Platforms of Opportunity

## 6. Sea Level Rise/Extreme Weather Events

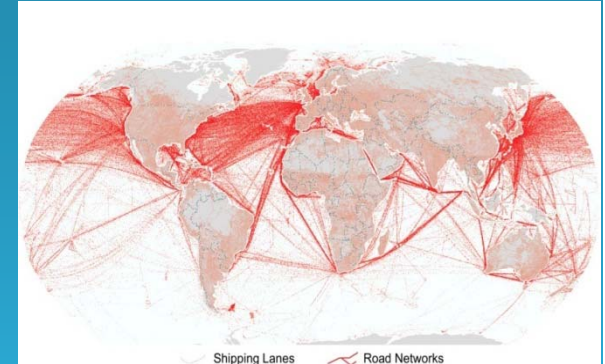
- Port/coastal infrastructure adaptation



# Port Reception Facilities

Prioritization modeling suggested

- Global fleet traffic by port (regionalized)
- PRF Adequacy defined by predominant ship type users
- Waste Streams by ship type
- Regional PRF gap analysis
- Biodiversity hot spots/ MPA identified to map risk
- Deliver solutions using social media and analysis tools



# Port Insider

The screenshot shows a Windows Internet Explorer browser window displaying the website 'Havenbedrijf Rotterdam - Port Videos'. The browser's address bar shows the URL: <http://www.portofrotterdam.com/nl/Over-de-haven/Haven-in-beeld/video/Pages/port-videos.aspx>. The website features a navigation menu with 'Haven' selected, and a sidebar with a tree view under 'Haven in beeld'. The main content area is titled 'Port Videos' and includes a video player showing an aerial view of a port area. The video player controls indicate a duration of 0:52 / 2:26. The footer contains four columns of links: Business, Scheepvaart, Haven, and Havenbedrijf.

**Havenbedrijf Rotterdam - Port Videos - Windows Internet Explorer provided by Lloyd's Register**

http://www.portofrotterdam.com/nl/Over-de-haven/Haven-in-beeld/video/Pages/port-videos.aspx

nl | en | de | 19:24 CET

Home Nieuws Business Scheepvaart **Haven** Havenbedrijf

nl en de 19:24 CET Zoek

Home > Haven > Haven in beeld > Port Videos

**Haven in beeld**

- ▶ Haven Rotterdam
- ▶ Havenkaarten
- ▶ Havenstatistieken
- ▼ **Haven in beeld**
  - ▶ Port Pictures
  - ▶ Screensavers
  - ▼ **Port Videos**
  - ▶ Wallpapers
  - ▶ Webcams
  - ▶ Beeldkwaliteit
  - ▶ Havenbeeld
  - ▶ Havenontwikkeling
  - ▶ Beleef de haven
  - ▶ Onderwijs en werk

**Port Videos**

Kijk voor onze video's op ons [YouTube kanaal](#). Of bekijk een video in de viewer hieronder.

0:52 / 2:26

**Business**

- > Over de haven
- > Containers
- > Natte bulk
- > Droge bulk
- > Breakbulk & RoRo
- > Achterlandverbindingen
- > Service Port

**Scheepvaart**

- > Actueel
- > Zeevaart
- > Binnenvaart
- > Recreatievaart
- > Nautisch beheer Zeehaven Dordrecht
- > Wet- en regelgeving
- > Communicatie en VTS

**Haven**

- > Haven Rotterdam
- > Havenkaarten
- > Havenstatistieken
- > Haven in beeld
- > Havenontwikkeling
- > Beleef de haven
- > Onderwijs en werk

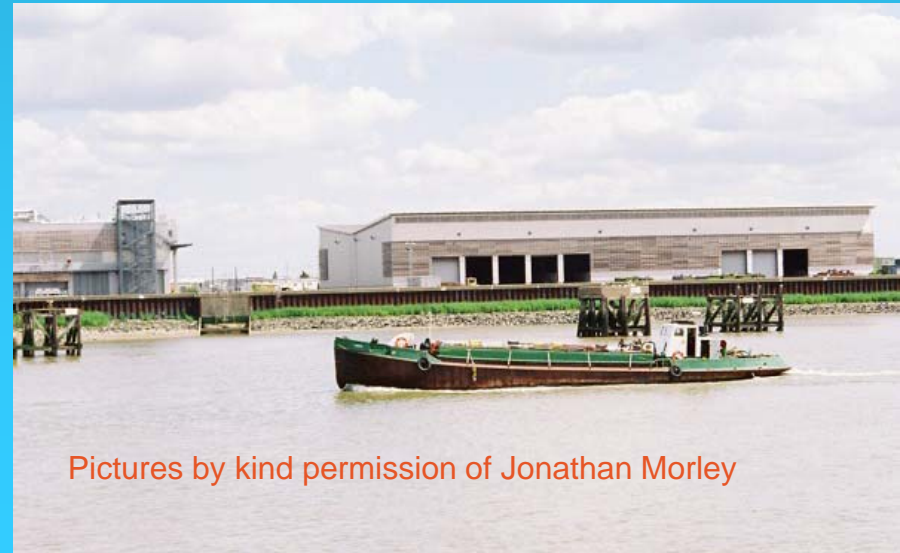
**Havenbedrijf**

- > Ons bedrijf
- > Organisatie
- > Financiën
- > Carrière en vacatures
- > Havenbedrijf en omgeving
- > Contact

Internet | Protected Mode: On 100%

EN 1:25 PM 7/12/2013

# Waste Support Vessels



Pictures by kind permission of Jonathan Morley

# Annex V – Waste Management PRF



Picture by kind permission of Jonathan Morley ©

<http://www.bloomberg.com/video/germany-s-ghost-port-signifies-shipping-slowdown-eujVPjysQ3SQPwW~Jd~J~A.html>

# Future Port Reception Facilities

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- Ship type and waste streams
- Existing PRF Infrastructure capabilities and age?
- Existing ship board waste mgt. capability by ship type
- Mobile PRF (barge, frac tanks etc.) cost effective?
- Virtual view into PRF from user perspective
- New technology and waste stream processing shore side
- Lean supply chain practices offer efficiencies/savings
- Proven onboard waste processing systems offer efficiencies/savings
- <http://www.portofantwerp.com/en/mood-movie-port-antwerp>



Thank You !

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CEO

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[www.oceancouncil.org](http://www.oceancouncil.org)