



**Environmental ship indexes: a tool to reduce pollution in ports?**

Eelco Leemans – North Sea Foundation

# background



from mariner to advocate for the  
marine environment: one footprint



1998	initiator ProSea Marine Awareness course
2001-2010	International campaign on Sustainable Shipping
2003-2009	co-ordinator FOEI Maritime Campaign
2006	co-founder NGO Shipbreaking Platform
2006	co-founder industry/NGO Platform on ship emissions
2007-08	member of IMO Expert group on Marpol Annex VI
2010	Executive Director North Sea Foundation
2010	co-founder / President Clean Shipping Coalition

# North Sea

North Sea = 575.000 km<sup>2</sup>, 1,5 times Netherlands land area  
Economic importance and usage increases

- 260.000 ship movements
- 96 windturbines Dutch coast
- 982 oil- and gas platforms (143 in NL)
- high intensity of (bottom trawling) fisheries
- 450 pieces of marine litter per 100 meter beach

## North Sea Foundation

- Sustainable fisheries (VISwijzer, Award 2010)
- Clean Shipping (Sustainable Shipping Award 2010)
- Clean Seas and beaches (Award Agentschap NL 2010)
- Marine Protected Areas





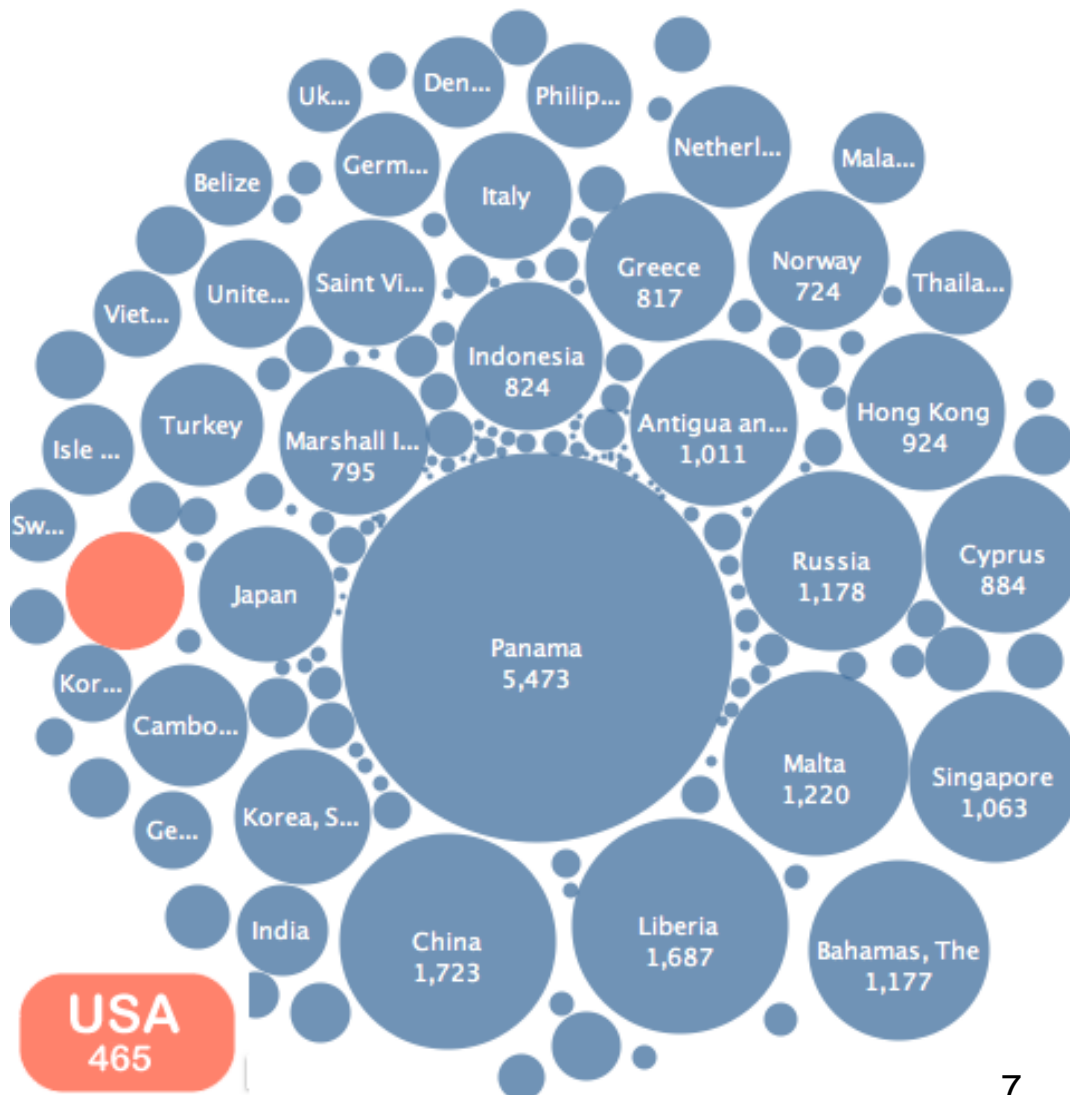
# Shipping and environment

- > 90% of all trade
- EU ports: annually 3,5 billion ton, 40% internal trade by sea
- Low demands on infrastructure
- Energy efficient
- but ....

# Ship Registry

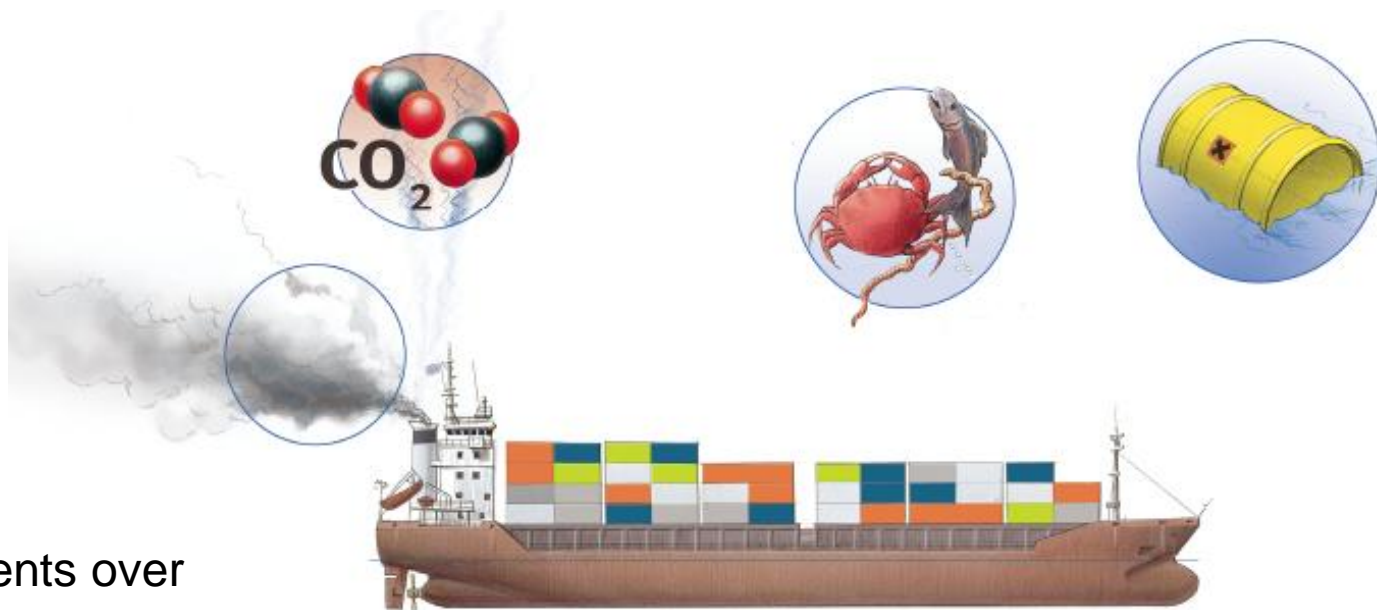


No clear connection  
between flag and  
nationality of owner





# Emissions from ships



Some improvements over  
the past decades ....

... but real ambition is lacking





# End of Life



# Air Pollution in ports

Ways to reduce

- Marpol Annex VI (ao ECA's)
- +
- EU regulation
- +
- Local regulation
- +
- Incentive systems

***Regulation only works with effective control and enforcement***

# Indexing schemes



- **Green Award**
- **Environmental Ship Index**
- **Clean Shipping Index**
- **Clean Cargo Working Group**
- Shippingefficiency.org
- Rightship
- Blaue Engel (Germany)
- Blue Circle Award (Canada)
- Green star
- Green Marine
- Sustainable Shipping Initiative.....





# Green Award

- Certificate issued by Green Award Foundation, Since 1994
- Holistic approach: covers environmental, safety and quality related aspects
- Rebate on port dues and other incentives
- Oil tankers, bulk carriers, LNG carriers and inland shipping.
- Certificate renewal every 3 years
- Annual office and ship audits by own personnel
- Governance: Marine industry in Committee and Board of Experts. Stakeholder workgroups.



# Green Award



## Requirements

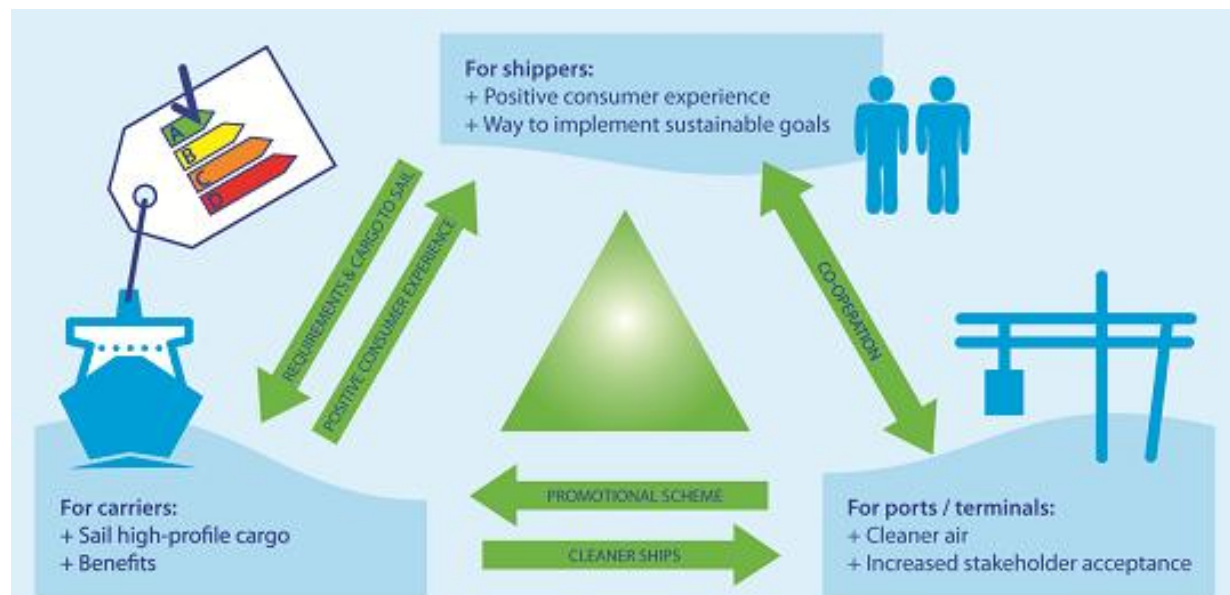
2/3 is about **management** onshore  
and on vessels  
1/3 concerns more technical aspects

- Air emissions
- Ballast Water
- Anti-fouling
- Navigation in 'sensitive areas'
- Waste Management
- Shipbreaking



# Environmental Ship Index (ESI)

- World Ports Climate Initiative (WPCI) 2009
- Aim: reduce air pollution in port areas
- Scope: SO<sub>x</sub> and NO<sub>x</sub>, points obtained for CO<sub>2</sub> reporting
- Reduced port fee in ports
- > 700 vessels in the program
- Audits by ports





# Clean Cargo Working Group



BSR



- Business for Social Responsibility
- Working group of around 30 large shippers and carriers
- Container vessels
- CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub>, chemicals and waste
- CO<sub>2</sub> in grams of CO<sub>2</sub>/TEU\*km, based on nominal values
- SO<sub>x</sub> and CO<sub>2</sub> partly verified

# Clean Shipping Index

- Web-based tool for cargo owners selecting environmentally acceptable shipping
- Environmental ranking system for both vessels and carriers
- Voluntary Monitoring Reporting/Verification tool for shipowners
- holistic environmental approach with both local/ regional *and* global focus
- Simple: Carriers answers 20 questions per vessel online

# Clean Shipping Index

- Covers main types of existing ships – all ages
- Goes beyond regulations
- strong economic driving force by cargo owners
- A verification of vessel/ and shipping company data by third party
- Non-profit organisation - environmental development is the goal

recent cooperation / merger of *Clean Shipping Index* and *Clean Cargo Working Group* may create a strong international index system



# Participating companies CSI

**NILSON GROUP**



**GUNNEBO**

**SKANSKA**



**Ballast Nedam**

**VOLKSWAGEN**

AKTIENGESELLSCHAFT

**Tetra Laval**



**EVONIK**  
INDUSTRIES



**BOREALIS**

**LINDEX**

**VOLVO**

Volvo Group Logistics Services

AstraZeneca



**ERICSSON**



**PHILIPS**



**Perstorp**



**DSM**

The Absolut Company  
Pernod Ricard



*NewWave*  
GROUP



**BASF**



**NEC**

**H&M**

**ABB**

**SANDVIK**



storaenso

**SKF**



**SCANIA**

**KappAhl**



preem

*Further read, report:*

## **An analysis of environmentally differentiated port fees**

Comparison of 5 existing initiatives

- “EU strategy too weak”
- Several Incentive schemes
- Favourable for quality operators
- Can (and do) play an important role in bringing down air pollution in ports
- ESI only scheme specific for air emissions
- Incentives *additional* to regulation

[www.noordzee.nl](http://www.noordzee.nl)

[e.leemans@noordzee.nl](mailto:e.leemans@noordzee.nl)

## conclusions

