CATALYZING TRANSFORMATION AND SCALING UP PROJECT INVESTMENTS

Promoting Transformational Change in Major Global Industries

GEF-UNDP-IMO GloBallast and GloMEEP Projects

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8TH GEF BIENNIAL INTERNATIONAL WATERS CONFERENCE
SRI LANKA 2016

10 May 2016, Negombo, Sri Lanka
Jetwing Blue Hotel Ballroom A

Jose Matheickal, Astrid Dispert & Antoine Blonce
Marine Environment Division
International Maritime Organization (IMO)

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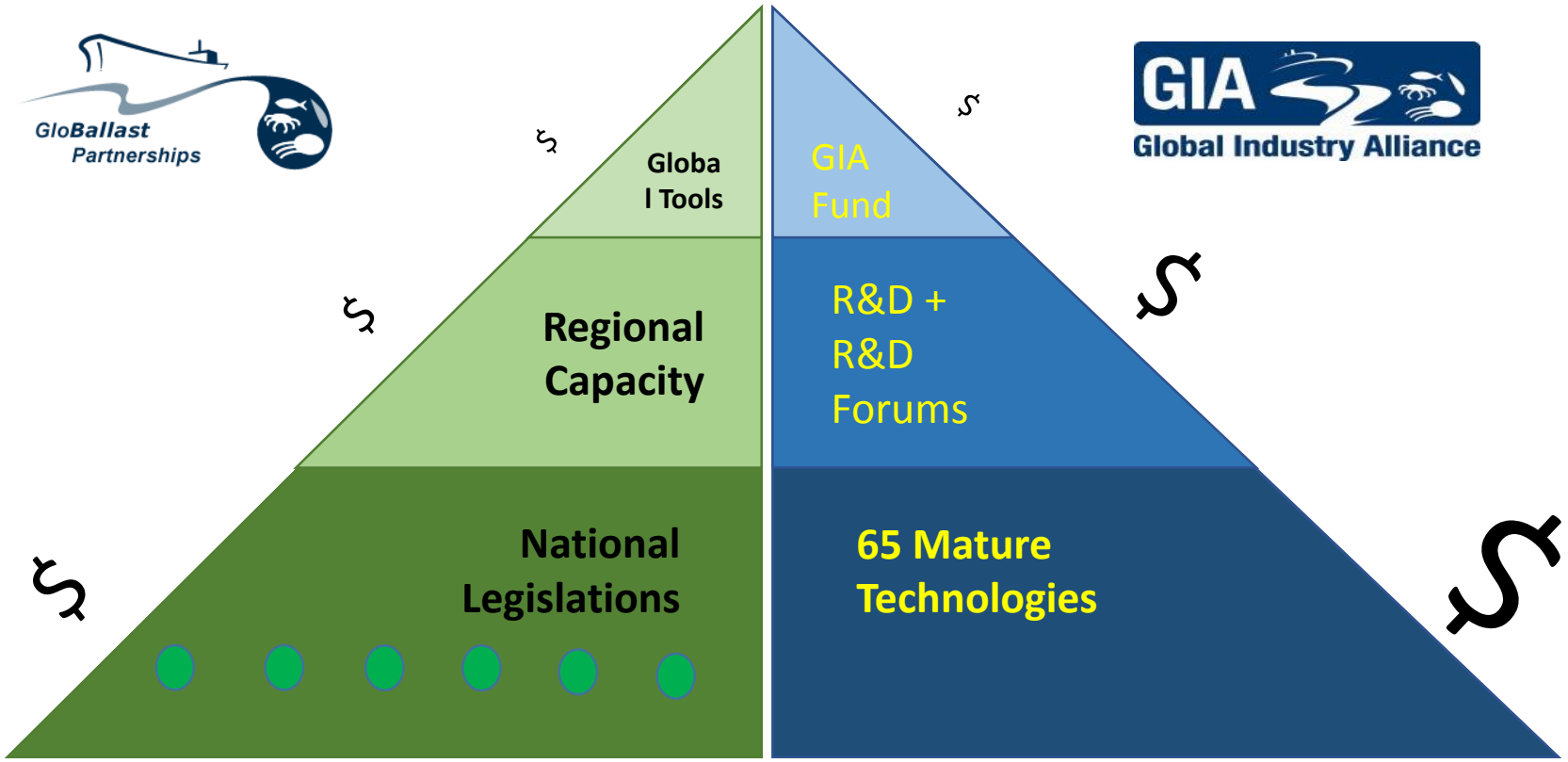

"Glo-X Pyramid" Model

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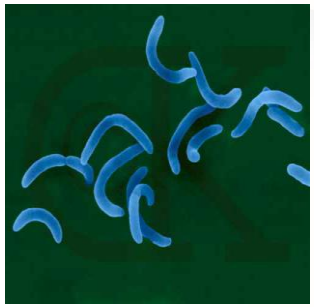
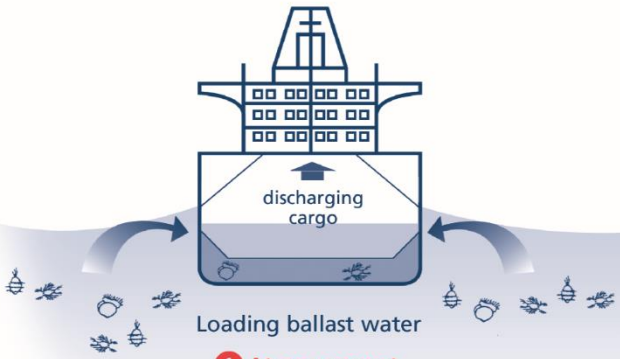
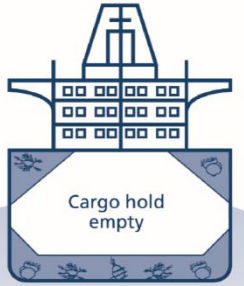
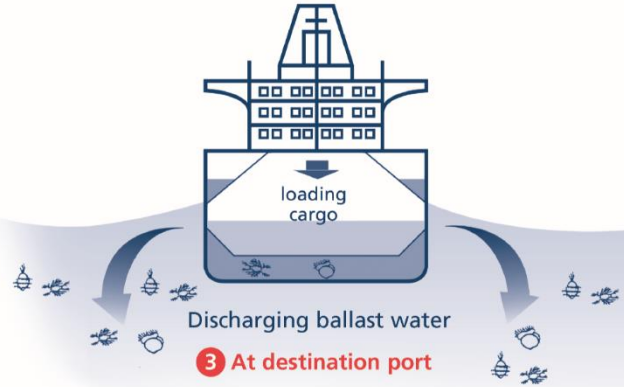
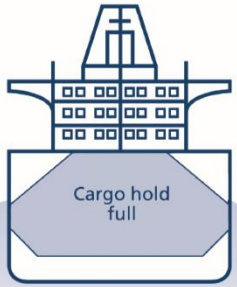
Tackling the transfer of Invasive Alien Species through ships' ballast water

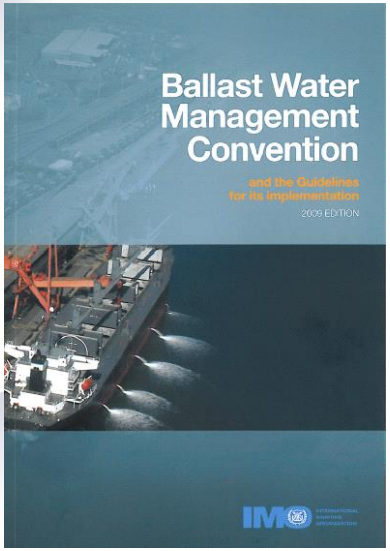












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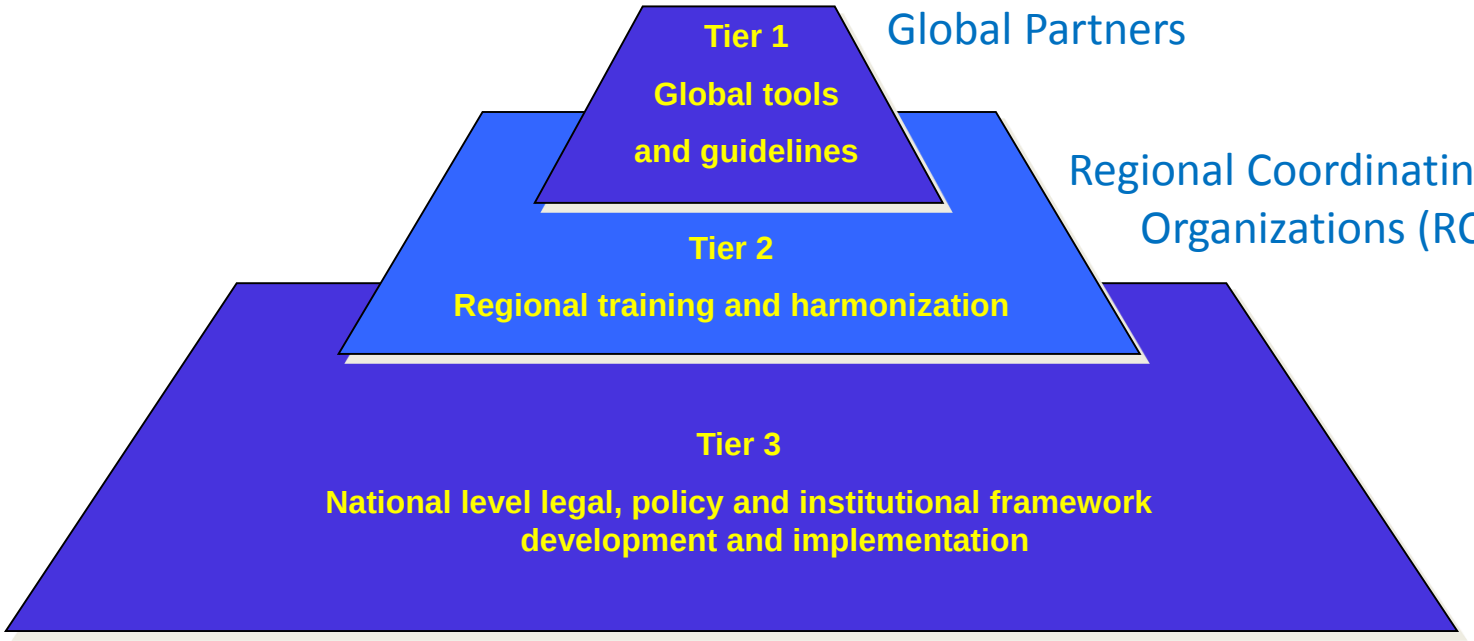
3-tier level of implementation: the Glo-X pyramid approach



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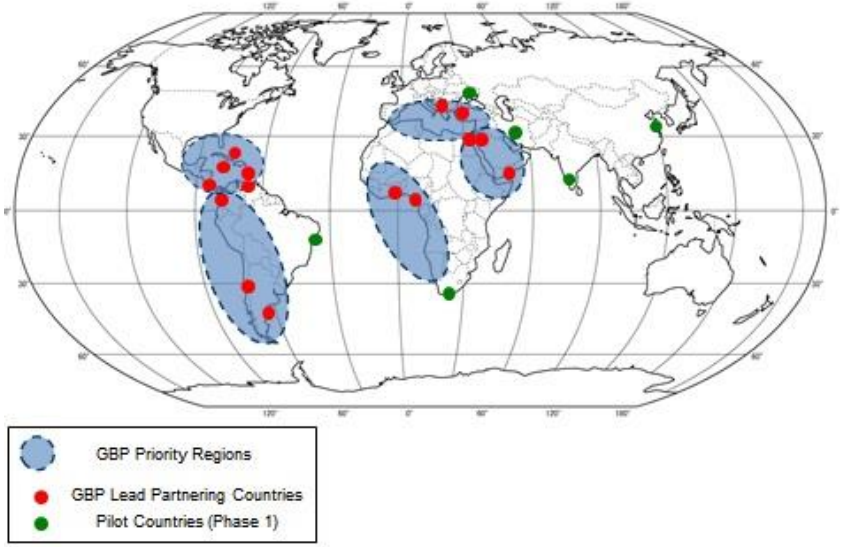
15 years of support to developing countries

- ✓ Assisting developing countries with the implementation of the BWM Convention
- ✓ Focus on, Legal Policy and Institutional Reforms (LPIR)



- ✓ Technical Cooperation
- ✓ Capacity Building

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Catalyzing Ocean Finance

Catalytic Ocean Finance Summary	Amount (US $)
Total GEF Grant Financing	$14 million
Total Programme Co-financing	$45 million
Catalysed Private Sector Financing	$35 billion
Catalytic Finance Ratio (Total Catalysed Finance : UNDP-GEF Finance:	2500:1

GloBallast case study

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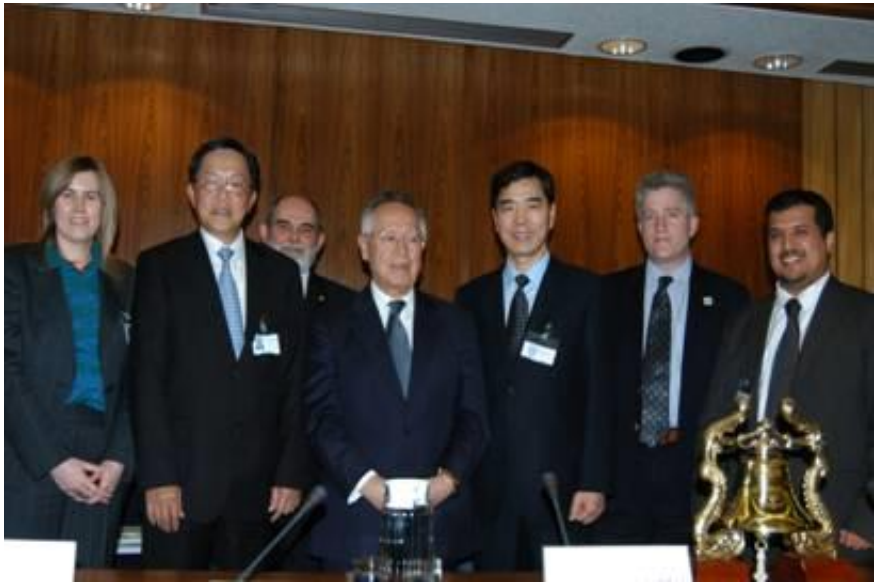
Global Industry Alliance (GIA) for Marine Biosecurity

Private Sector partnership established to support the implementation of the BWM Convention

- ✓ Launched by the IMO Secretary General on 2 March 2009
- ✓ Established to support the implementation of the BWM Convention
- ✓ Founding Partners: APL, BP Shipping, Daewoo Shipbuilding, Vela Marine International (now APL and Keppel)



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Global Industry Alliance (GIA) for Marine Biosecurity

- ✓ GIA Fund (Membership fees)
- ✓ GIA Task Force (TF) – Industry members
- ✓ Activities developed and agreed by the GIA TF
- ✓ Support provided by a Secretariat (GloBallast)
- ✓ Benefits for the industry

Lloyd's List, March 2009

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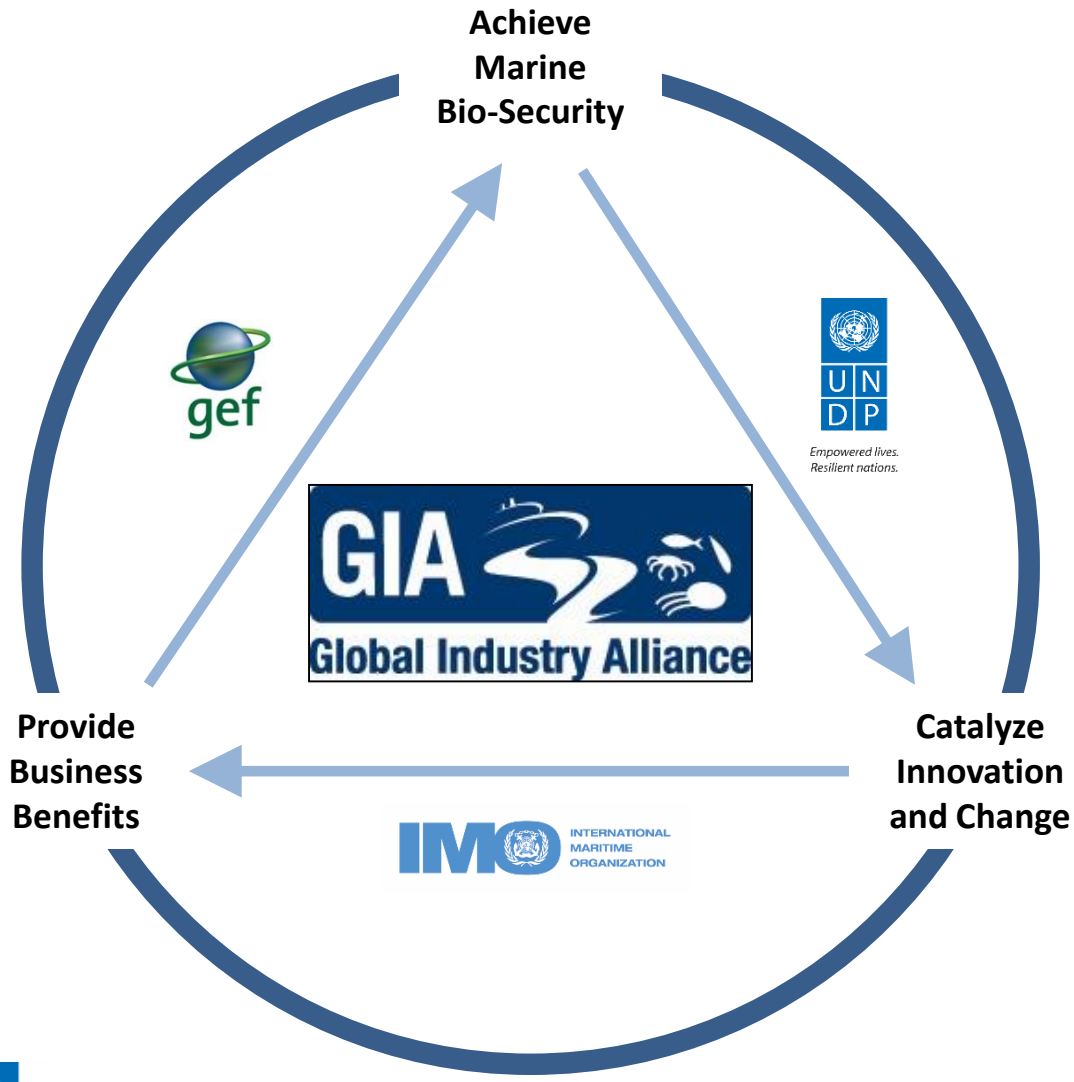
Global Industry Alliance (GIA) for Marine Biosecurity



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Global Industry Alliance (GIA) for Marine Biosecurity

✓ Support to the organization of a R&D Forum on BWM

Image: Damen Shipyards

✓ Experts workshops on port-based BWM contingency measures

✓ E-learning platform to deliver online training

http://globallastlearning.com

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GloBal TestNet

16 Worldwide Testing Organizations signing MoU to promote harmonization

Busan, Republic of Korea, 2013

http://www.globaltestnet.org/Home

- ✓ Established 7 years ago
- ✓ Meeting every year
- ✓ Test Facilities sharing knowledge on testing of BWM Treatment Systems

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GEF-UNDP-IMO GloMEEP Project

Transforming the Global Maritime Transport Industry towards a Low Carbon Future through Improved Energy Efficiency

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Shipping affects us all

- ✓ ~ 90% of world trade is by sea (raw materials, finished goods, foodstuffs, fuel etc.)
- ✓ International shipping plays an essential role in the facilitation of world trade
- ✓ Shipping: most cost-effective and energy-efficient mode of mass cargo transport
- ✓ Triple-E ship: moves a tonne of cargo **184km** using one kWh of energy
- ✓ Boeing 747: moves a tonne of cargo **0.5km** using one kWh of energy

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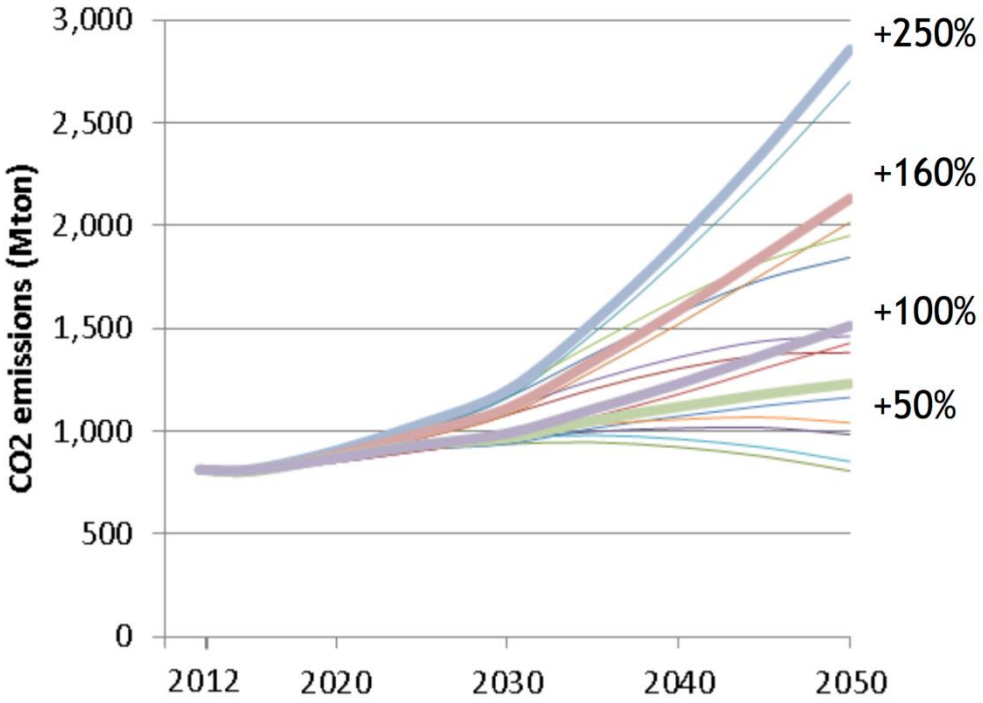
Emissions from international shipping

- ✓ 2.2 % of global CO_2 emissions in 2012

Year	International shipping	% of global
2007	885	2.8%
2008	921	2.9%
2009	855	2.7%
2010	771	2.3%
2011	850	2.4%
2012	796	2.2%
Average	846	2.6%



Future CO_2 emissions

- ✓ Projection: Growth in CO_2 emissions for international maritime transport between 50% to 250% in the period up to 2050
- ✓ Depending on future economic and energy developments

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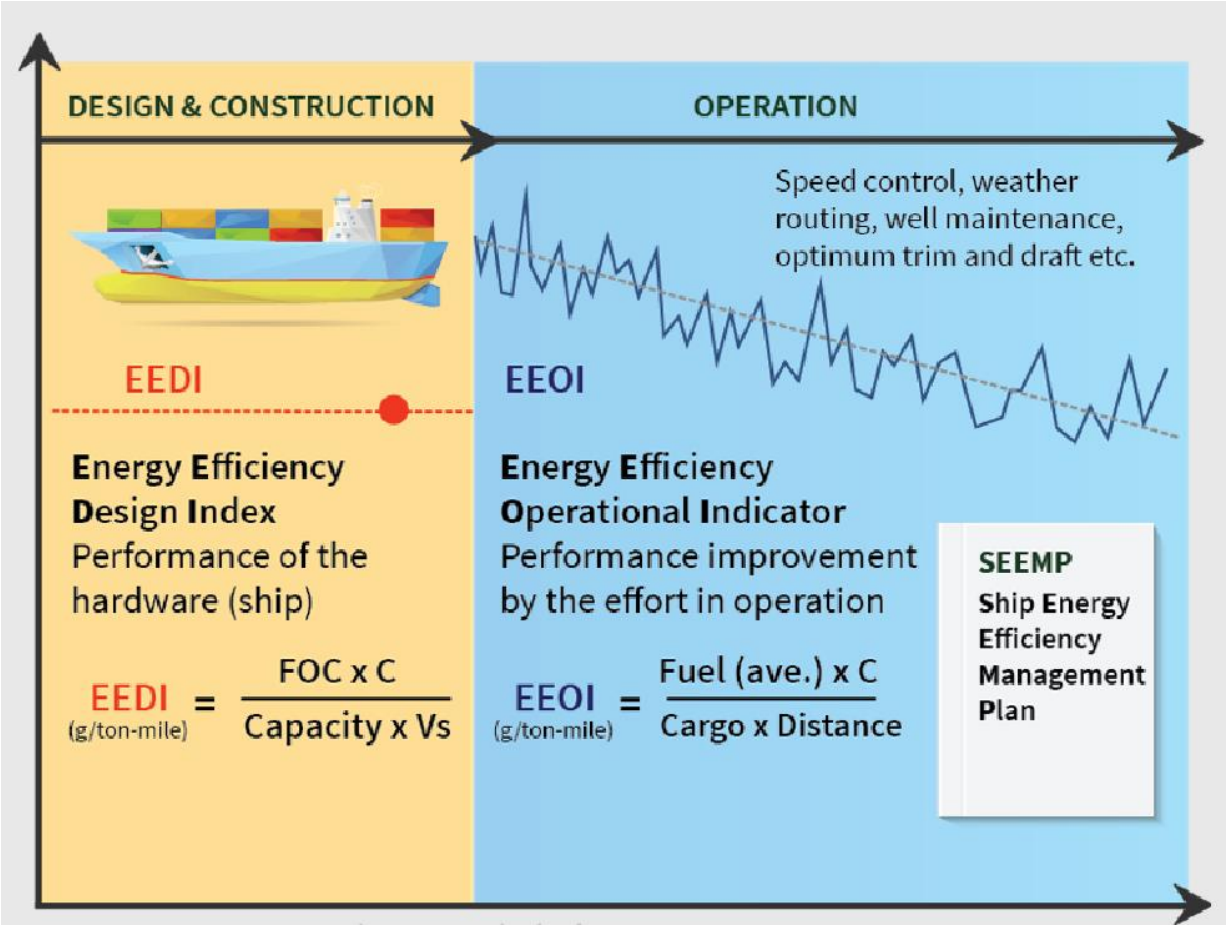
IMO's work to address GHG emissions from international shipping



- ✓ Mandatory energy-efficiency regulations for ships trading internationally entered into force as a 'package' on 1 January 2013
- ✓ First-ever, mandatory global regime for CO_2 emission reduction in an entire industry sector

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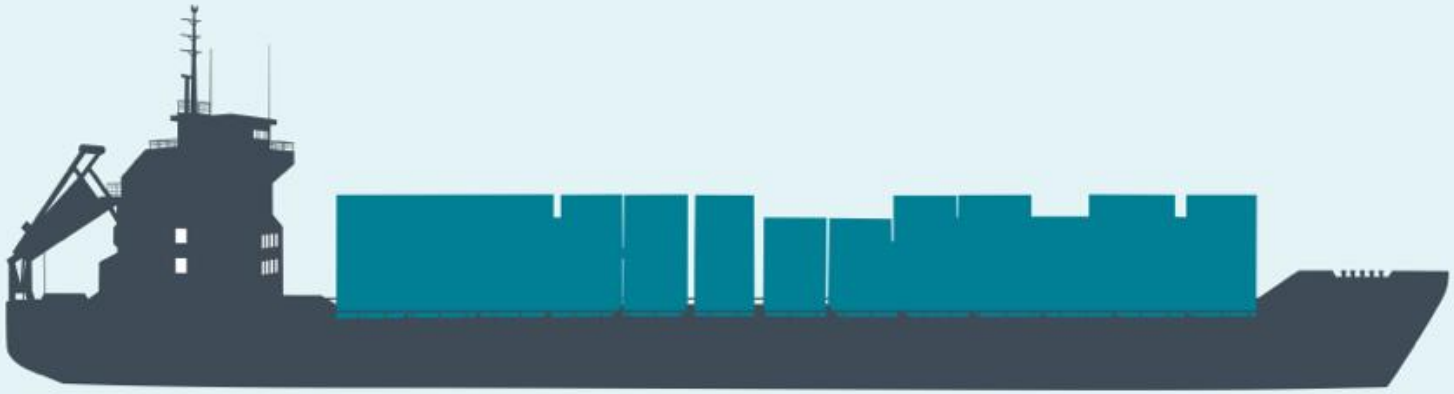
Potential fuel and CO_2 reductions from various efficiency approaches for ships

Operational
Weather routing **1-4%**
Autopilot upgrade **1-3%**
Speed reduction **10-30%**

Auxiliary power
Efficient pumps, fans **0-1%**
High efficiency lighting **0-1%**
Solar panel **0-3%**

Aerodynamics
Air lubrication **5-15%**
Wind engine **3-12%**
Kite **2-10%**



Thrust efficiency
Propeller polishing **3-8%**
Propeller upgrade **1-3%**
Prop/rudder retrofit **2-6%**

Engine efficiency
Waste heat recovery **6-8%**
Engine controls **0-1%**
Engine common rail **0-1%**
Engine speed de-rating **10-30%**

Hydrodynamics
Hull cleaning **1-10%**
Hull coating **1-5%**
Water flow optimization **1-4%**

Source: ICCT, 2013

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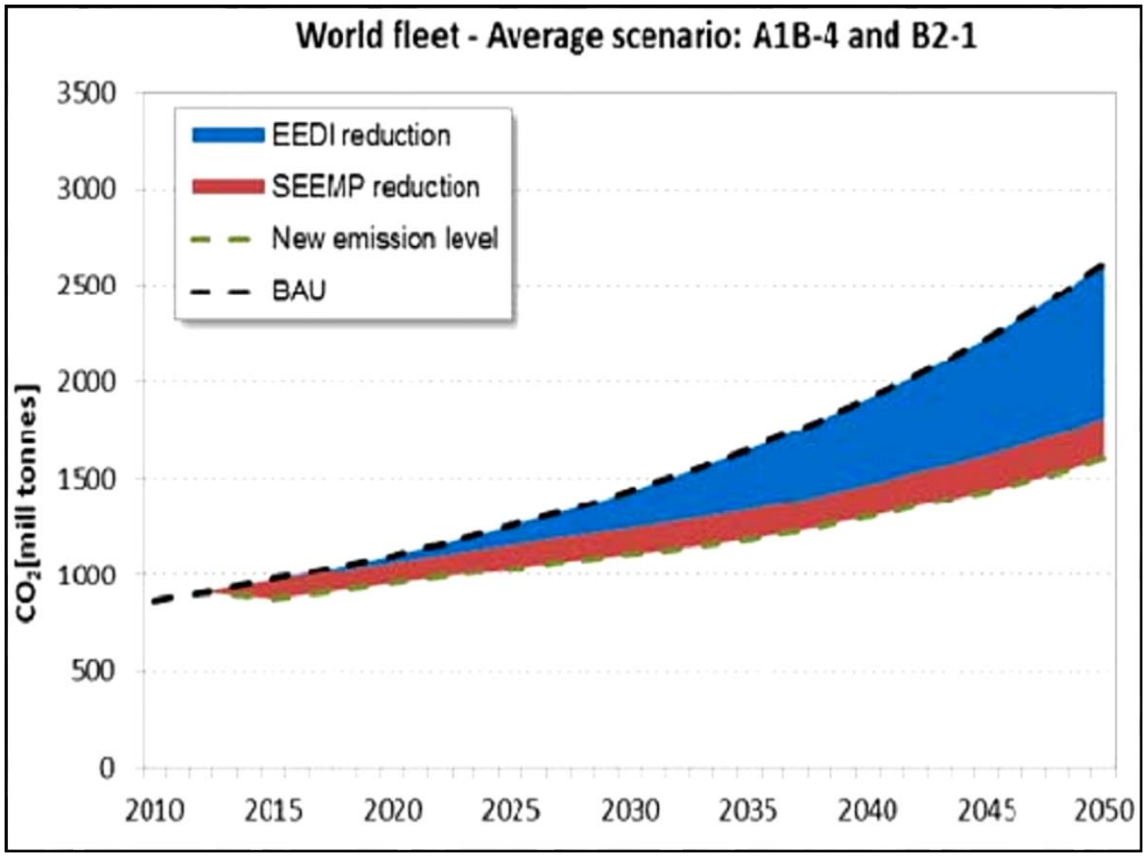
Impact of EEDI and SEEMP



Source: Assessment report on CO_2 reduction potential due to IMO Energy Efficiency Regulations", MEPC 63/INF.2, October 2011

- ✓ Combined impact of EEDI and SEEMP by 2050 is a reduction of ~1 billion tonne CO_2/year

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Barriers to implementation of IMO Energy Efficiency Framework

- ✓ **Barriers to implementation**
  - Global nature of shipping
  - Large numbers of stakeholders involved
  - Heterogeneous nature of ships
  - Split incentives between stakeholders
  - Barriers to technological flows and technology transfer
  - General lack of capacity in developing countries
- ✓ Capacity building is needed to remove this barriers
- ✓ GloMEEP Project was developed to support effective implementation of regulations

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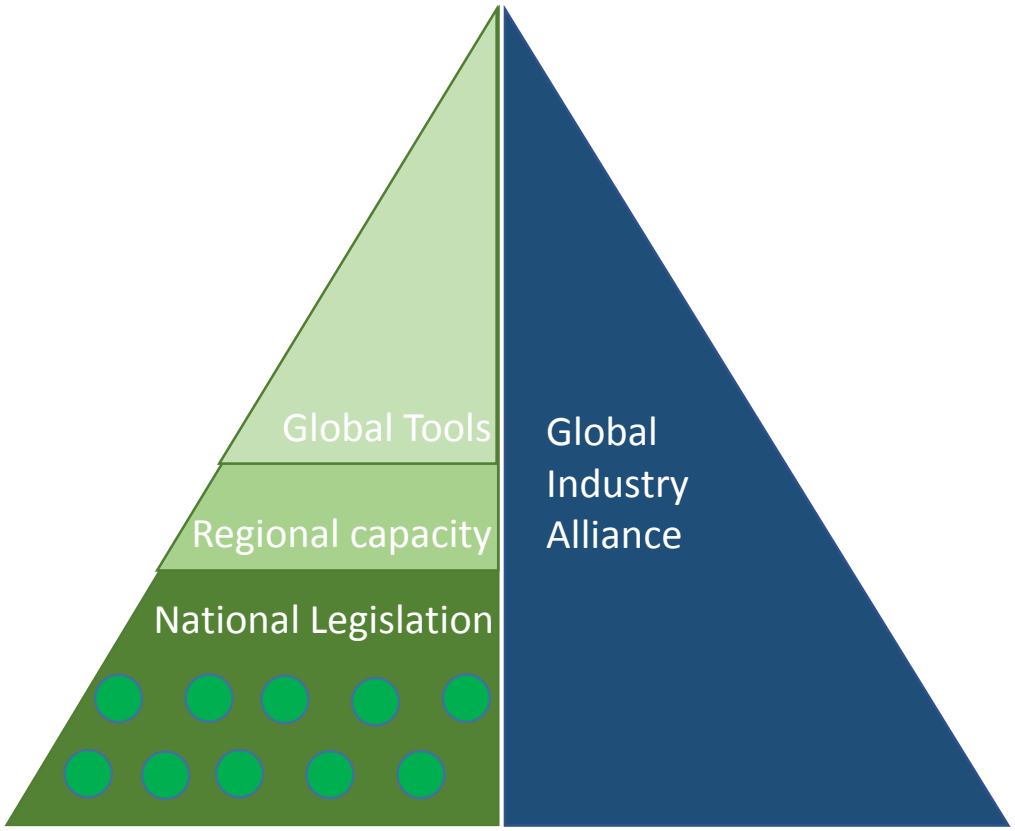
GEF-UNDP-IMO GloMEEP Project

- ✓ Builds on GloBallast Partnership experience
- ✓ **Overall objective**: Build capacity in developing countries to catalyze overall reductions in GHG emissions from international shipping
- ✓ **10 GloMEEP Lead Pilot Countries**: Argentina, China, Georgia, India, Jamaica, Malaysia, Morocco, Panama, Philippines and South Africa
- ✓ GloMEEP launched September 2015 in Singapore:

GEF-UNDP-IMO GloMEEP Project



1. Legal, policy and institutional reform (LPIRs)
2. Building capacity (human and institutional)
3. Global Industry Alliance to support industry innovation to support the effective implementation

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GloMEEP Project Activities

National activities

- ✓ Creation of National Task Forces
- ✓ National Workshops (Georgia, Jamaica, Panama)

Global activities

- ✓ Development of three Global Tools for LPIR reform (country rapid assessment, policy development/road mapping and model legislation)
- ✓ Development of Energy Efficiency Information Portal
- ✓ Logo, Website, Outreach material

Next

- ✓ National workshops (Malaysia, China)
- ✓ Development of country reports (using Global Tools)
- ✓ Train the Trainer course on “Energy Efficient Ship Operation” - Dalian, China
- ✓ Launch - Global Industry Alliance

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Thank you !

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