



Green Shipping Future – China's perspective

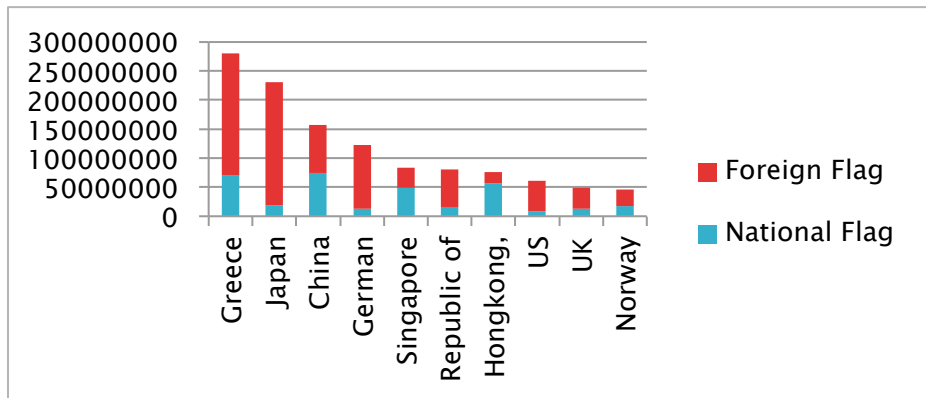
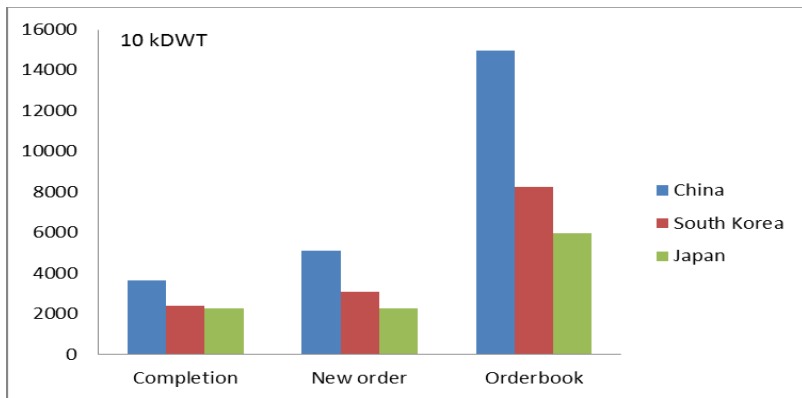
Paris, 2 Dec, 2015

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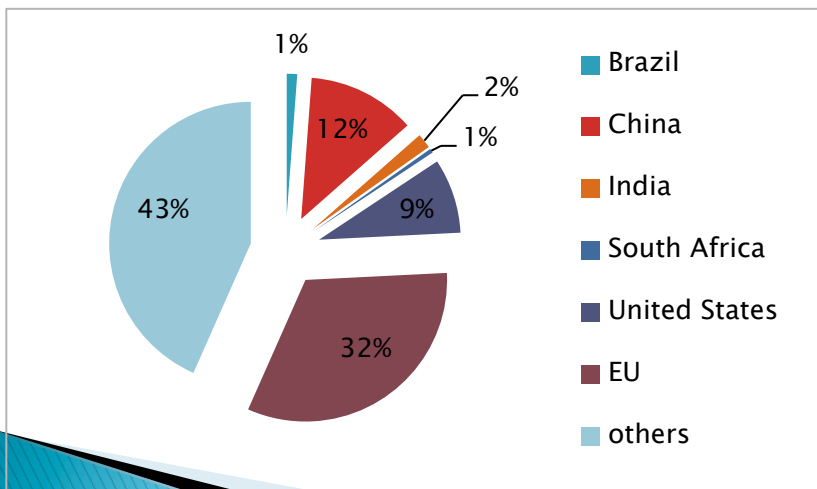


China's Shipping Industry and International Trade



Ship Building Major Indicators in 2014 Sources: CSERC

Ownership of the world fleet, as of 1 January 2015 (dwt) Sources: UNCTAD



As a major stakeholder of international shipping industry, it is crucial that we look back to get the momentum and look ahead to predict the future trends, and act proactively.

International Trade by Value in Selected Countries (Million USD) Sources: UNCTAD



Looking Back & Ahead

Historical (1983–2005, 20Yrs)
Combating Ocean Pollution

Chemical; Packaged Goods
Sewage; Garbage
Anti-fouling; Ballast Water

Present (2005–2025, 20Yrs?)
Combating Air Pollution

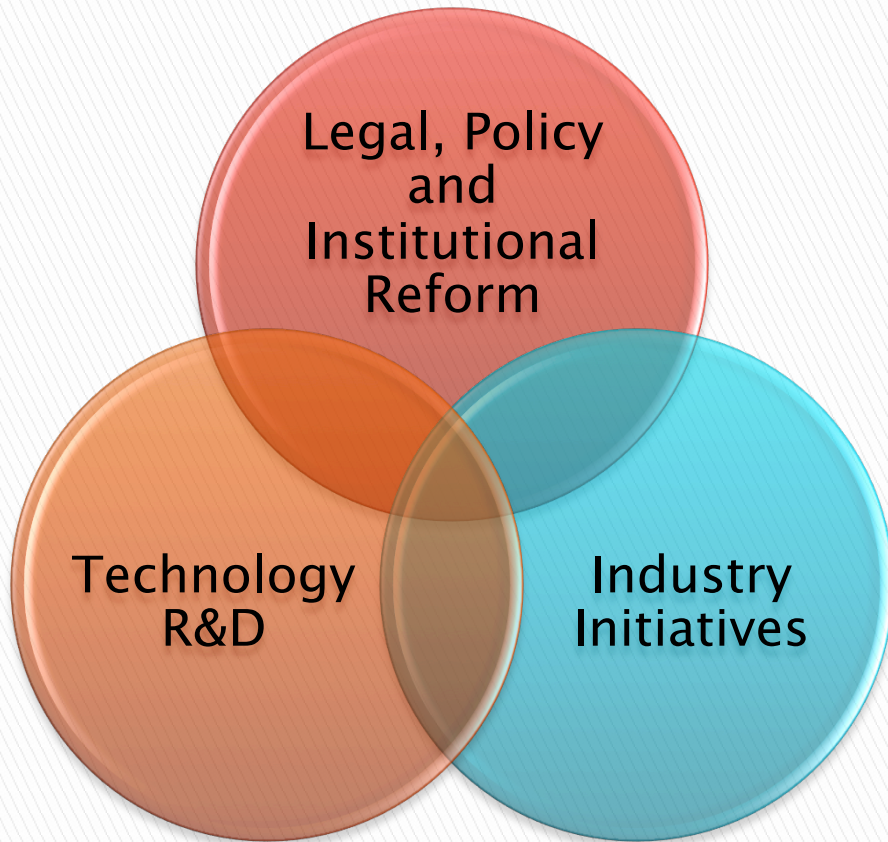
SOX; NOX
ODS; VOCs
Energy Efficiency

Future (2025– ?)
Sustainable Shipping?

Smarter
Greener
Integrated and interconnected

- ▶ For decades, the member states of IMO have exercised strong and decisive leadership in creating the legal and technical framework within which shipping has become **progressively cleaner, greener and safer**
- ▶ ...in 2030. These ships will be **smarter, data driven, greener, with flexible powering options**, fully connected wirelessly onboard, digitally connected through global satellites. (*Lloyd's Register, QinetiQ and University of Southampton. Global Marine Technology Trends 2030, 2015*)

Prepare for future



- ▶ “If you wanna know what China’s gonna do, best pay attention to the 13.5”
- ▶ The fifth plenary session of the 18th Communist Party of China (CPC) Central Committee has just concluded, which set the tone for China’s 13th five-year plan.
- ▶ **Innovation, harmonization, green growth, inclusive development and a sharing economy** will be guiding principles for China’s future socio-economic development.
- ▶ China’s shipping sector has been stick to and will continue to adhere to these principles.

China's Legal, Policy and Institutional Reform

- ▶ Develop **Regulations** on Implementation of Energy Conservation Law by Road and Waterborne Transportation.
- ▶ Enact **Regulations** on Statutory Survey and incorporate Chapter 4 of MARPOL ANNEX VI amendments into national legislation.
- ▶ Develop energy conservation and emission reduction **strategy** (2010–2020), **strategic plan** for road and waterborne transportation (5 year plan), and annual **action plans**.
- ▶ Encourage phase out of aged ships.
- ▶ Launch concrete **programs** to raise public awareness and build capacity. e.g., the "Car / Ship / Road / Port" Low Carbon Transport Action; low-carbon transportation day, etc.
- ▶ Promote energy conservation and low emission **pilot projects**.



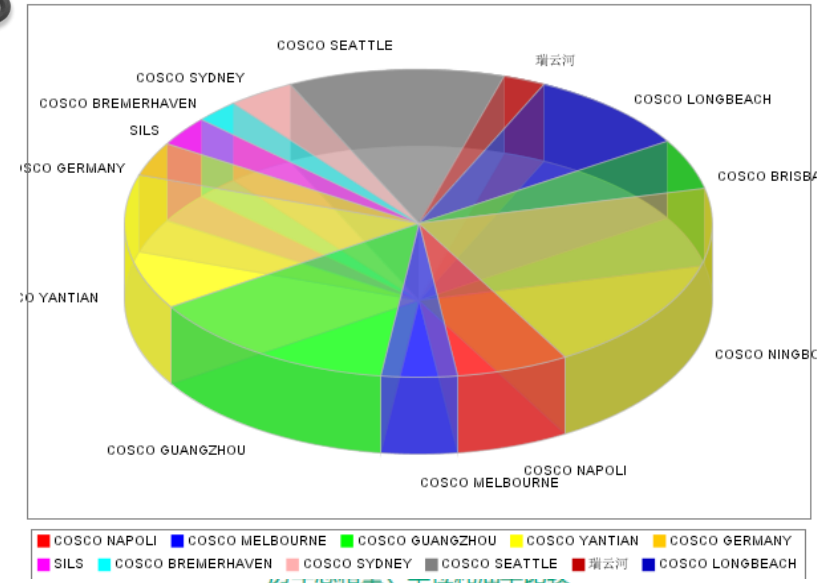
VESSEL VOYAGE OIL CONSUMPTION REPORT

统计时间:2007-05-04 到 2007-05-10

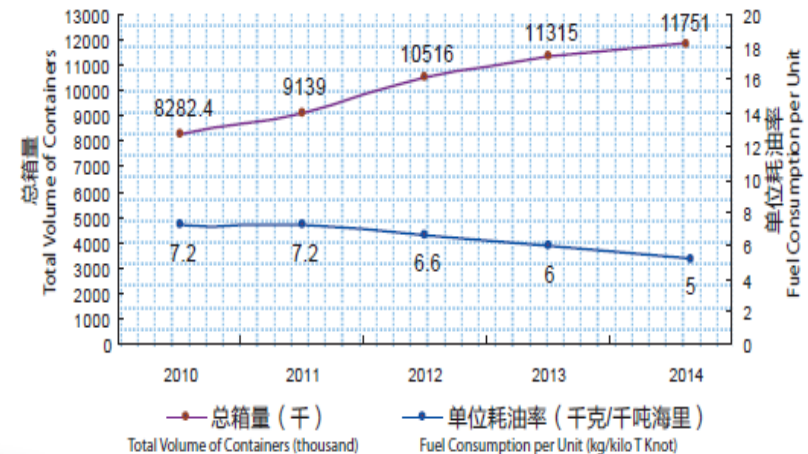
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燃油消耗总量分析图



Total Volume of Container, Fuel Consumption Rate



Industry Initiatives

Case study: COSCO Container Lines

- Develop a Fuel Oil Consumption Information system, monitoring the ship energy efficiency performance 24/7
- Establish trade lane specific EE benchmarks and improvement targets
- Install on-line EE monitoring sensors, allow company to collect & analyze timely data with a view to improve operations.
- Apply new technologies, e.g. trim automatic adjustment system, SEA-Mate™ main engine cylinder oil online blending technology, advanced weather routing systems, etc. to ensure the optimum operational conditions

green shipping

Industry Initiatives–COSCO Container Lines

- ▶ Awarded **Green Gateway Partners** by the Port of Seattle in 2014, which recognize its comprehensive environmental achievements.
- ▶ Awarded the **Green Flag Award** by the port of Long Beach for years in succession.
- ▶ Participate in the **Hong Kong Fair Winds Charter** and voluntarily switch to low sulphur fuel while at berth in Hong Kong.
- ▶ Become the third company be verified and certified the **Clean Shipping Index Certifications** by the BSR CCWG.
- ▶ 12 Container vessels have acquired **Environmental Ship Index certificates** under an umbrella of the International Association of Ports and Harbors' (IAPH) environmental initiative–World Ports Climate Initiative (WPCI).



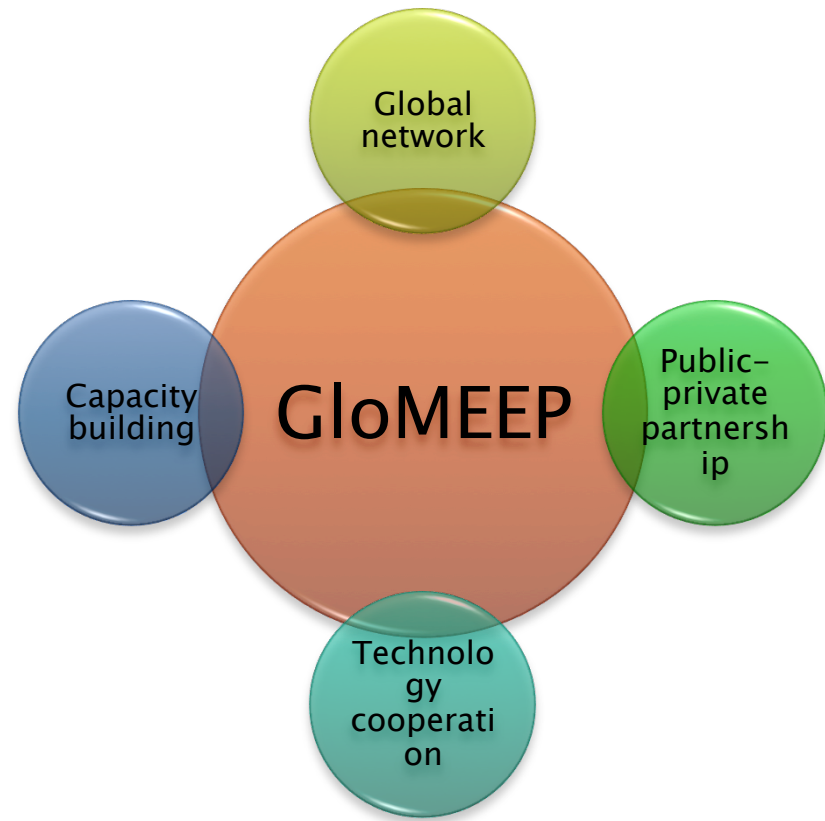
Technology R&D

- ▶ The Chinese government, through official tenders and projects, stimulates to the greening of maritime industry and for increased use of "green" technologies and systems, and more environmental friendly fuel for ships.
- ▶ China maritime industry, classification society and research institutes are taking the lead in developing EE technologies, such as alternative hull design, hybrid power systems, advanced materials, etc.
- ▶ The Green shipping approach is not only about individual initiatives and endeavors, but also about the **close integration and shared development** of the world.
- ▶ Capacity building and technology development will be the key for our shared future. But, how to remove barriers to EE technologies and measures?
- ▶ To create the enabling environment, we need **global network and partnership** for maritime technology cooperation.



Global network and partnership

- ▶ “It is critically important to develop **global partnership and networking mechanisms** to accelerate cooperation in maritime technology transfer” – Koji Sekimizu, IMO Secretary-General
- ▶ The GloMEEP, which dedicates to the creation of a strong partnership and coordinated actions among 10 developing countries, would be a frontier for a global network and partnership.
- ▶ China welcomes IMO’s initiative and fully supports this project. As a member of GloMEEP family, we will endeavor to make contributions to this global partnership and network.





**THANK
YOU**