

Complexity: is the SMS still manageable? - a Shipmanagement Perspective



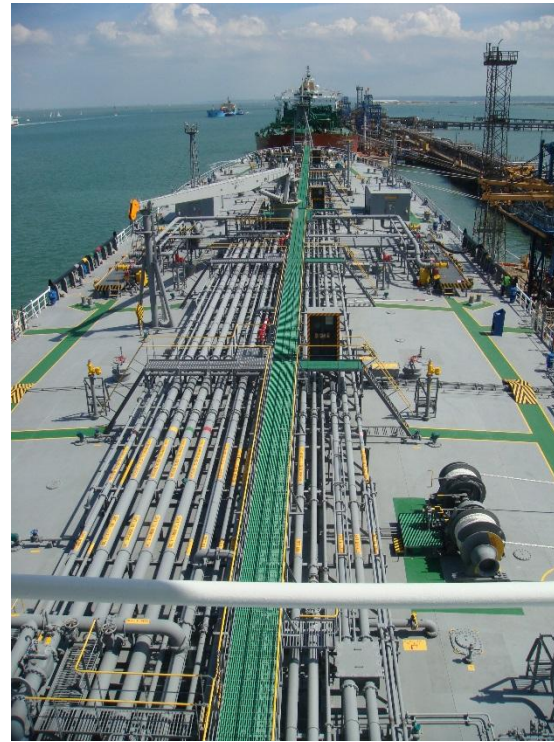
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Overview

- Introduction
- How is complexity introduced?
- Examples / case studies
- Managing Complexity
- Summary and a way forward

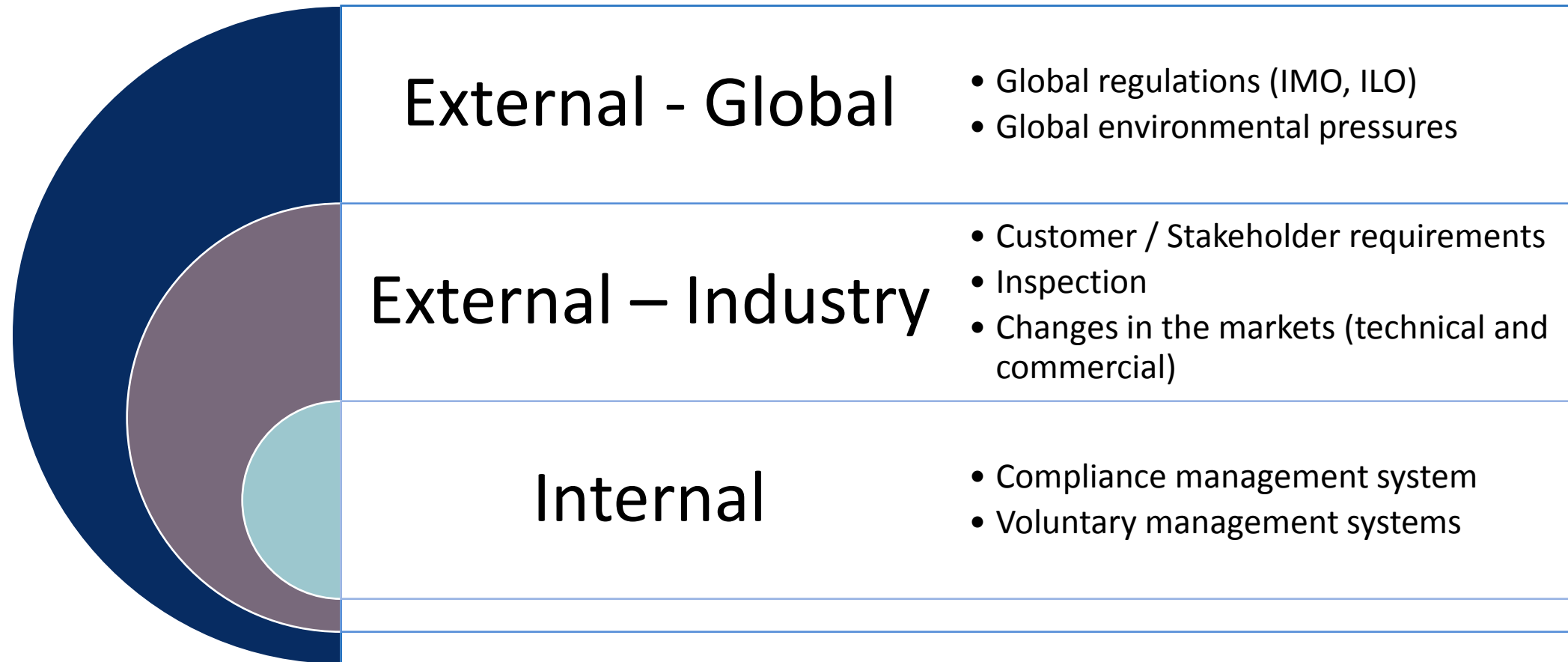
Zodiac Maritime Ltd.

- Manages over 90 ships
- Mixed fleet of container, bulk, tankers, car carriers
- Commercial, operational, technical, crewing, financial, insurance and legal, QHSE, sale and purchase
- Three flag administrations –UK, Liberia and Bermuda



Zodiac Maritime

Introducing Complexity



External – Industry/Market

- Proliferation of regulations – range and scope
- Increasing instances of national level regulations different to international regulations
- Industry (customer) standards – vetting and customer inspection, TMSA, (ship and office audits)
- Inconsistencies in interpretation of requirements
- Complex Regs can mean unintended consequences and potential conflicts

Case study – Emissions

- Sox and Nox reduction measures
 - Reduce pollution, increase fuel consumption, modal shift, LNG as greenhouse gas?
- Global Warming & Fuel Saving
 - Reduce CO2 emissions, slow steaming can have a supply chain impact, pressure on costs,

Case study – work and rest hours

- Primary legislation comes from STCW, ILO and OPA 90
- Multiple requirements
 - Hours worked in any 7 day & any 24 hr period
 - 10 hours rest / < 2 periods
- OCIMF Guidance
 - 3 or more days with 'NC'
 - Management reporting and oversight
- PSC CIC
 - Watch-keepers adequately rested
- Significant admin work load, record all hours & any work

Case study – loading a container ship

1. DG's, Reefers, Specials etc.
2. Load and secure containers
 - Lashing system limitations, stack weights, GM
3. Bending Moments / Shear forces
4. Draft / Trim / Ballast
 - Optimise for Fuel saving
 - Impact on GM, Bending moments and shear forces

Managing Complexity

- Reduce
 - Review procedures and instructions (intent, validity and function - not the words)
 - Resist prescriptive measures; allow managers to manage
- Organise
 - ISO and industry standards minimize scope for interpretation
 - Integrated management system
- Prioritise
 - What must be done and what can be done
 - Process safety vs management of deficiencies
- Learn & Train
 - Knowledge, skill and training always helps

Summary and a way forward

- It's an increasingly complex world
 - Shipping is not the only sector with these challenges
- The customer is always right
- Stakeholders share the same objectives
 - Safer, cleaner more efficient industry
- Support from Stakeholders
 - Do we deserve it? / Can we earn it?
- Transparency / communication

Thank you