Demands on Classification Societies

California State Lands Commission
Prevention First 2004 Symposium

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MANAGING RISK

Introduction

Issues Involving Demands on the Class Societies:

- **Environmental Challenges**
- **ISM and Survey Failures**
- **Safety, Quality & Environment : Human Factors**

Environmental Challenges

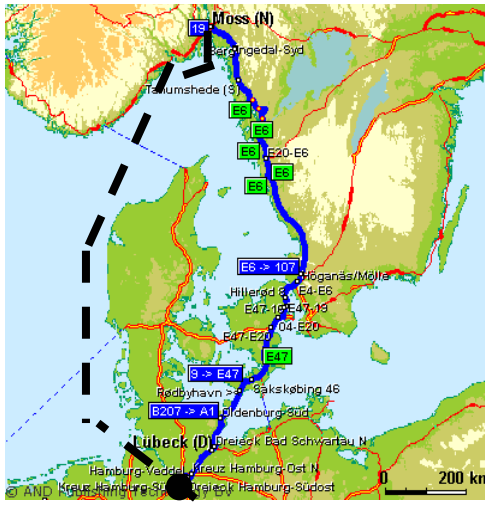
...some immediate areas:

- ship scrapping
- TBT free antifoulings
- ballast water

...and some longer term:

- emission trading

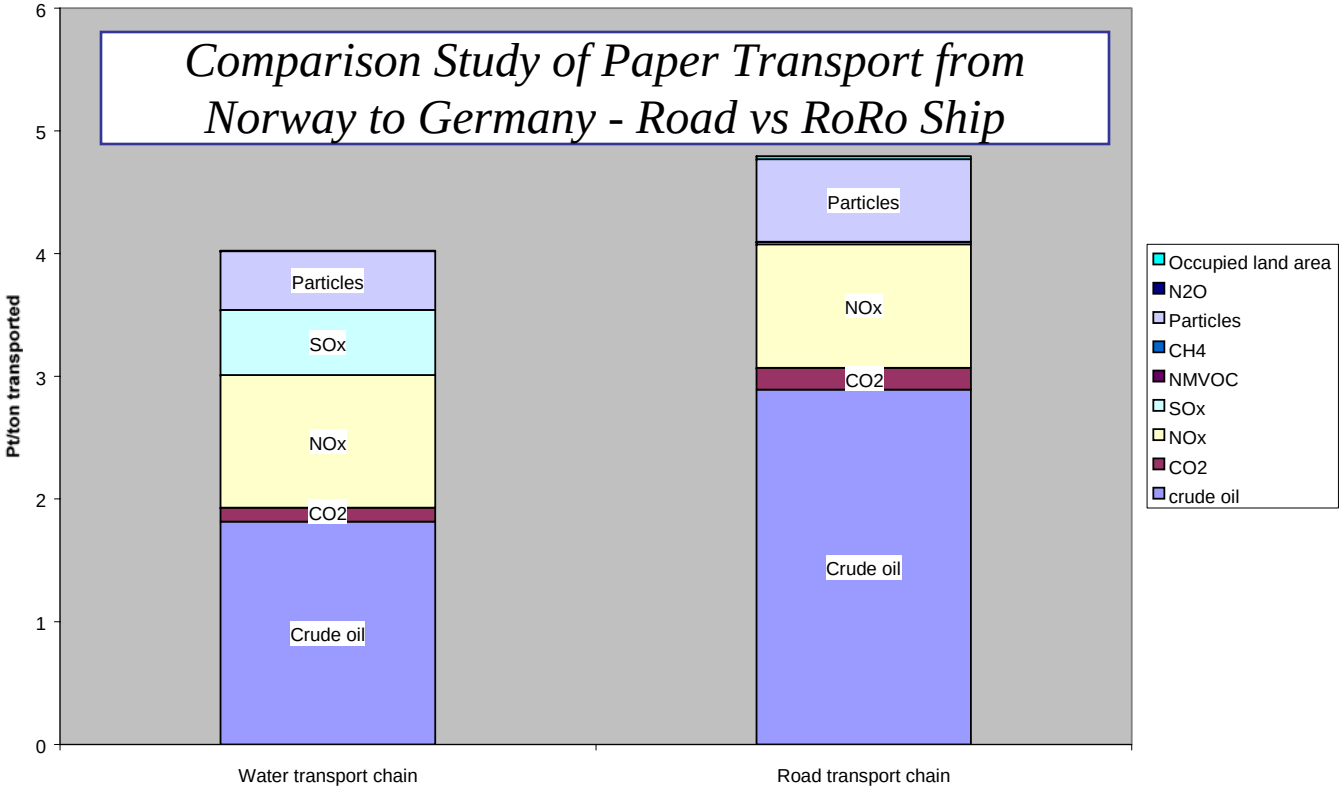
Environmental Challenges



Water transport route
Road transport route

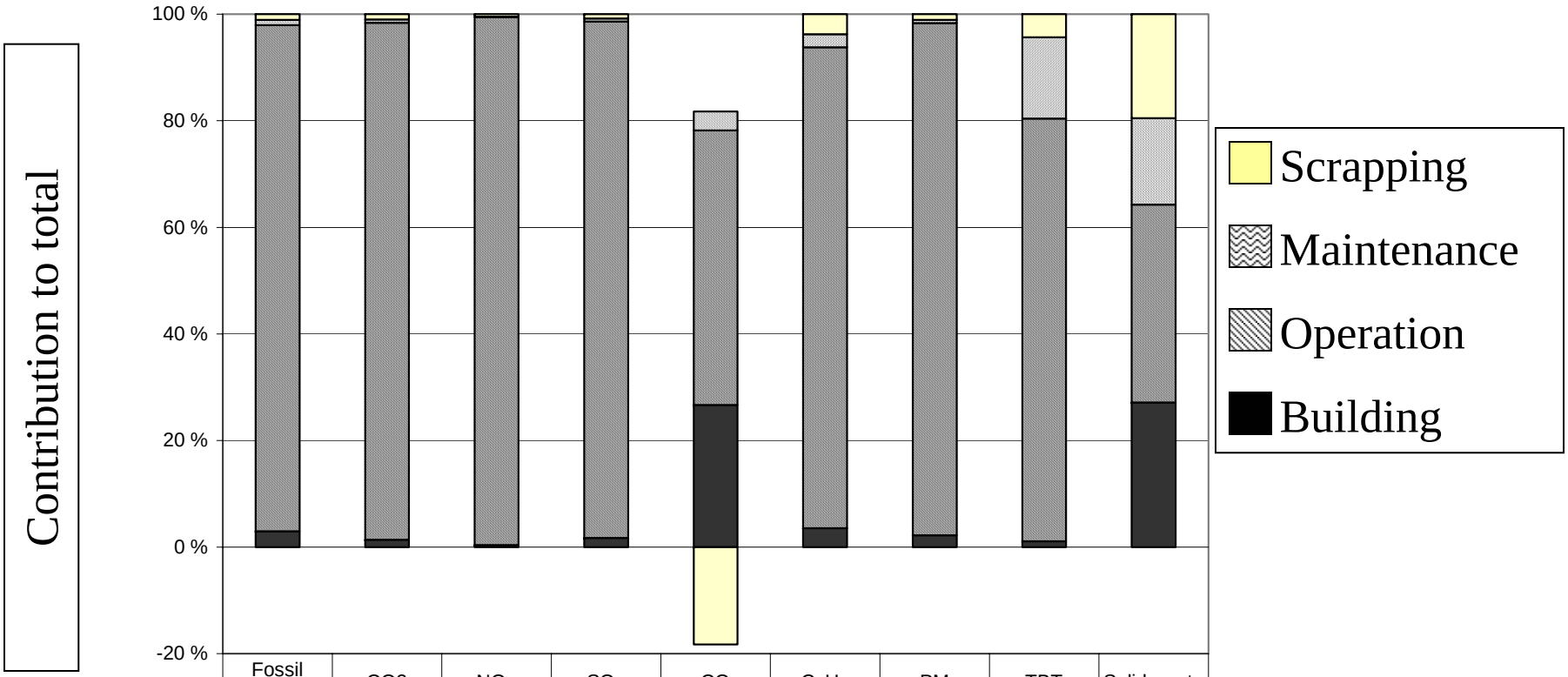
Environmental Performance based on Eco-indicator 99 method expresses damage to Human Health, Ecosystem Quality and Resources

- *Ship Transportation is generally an Environmental Friendly Means of Transportation*
- *Highly Dependant on Utilisation and Type of Trade*

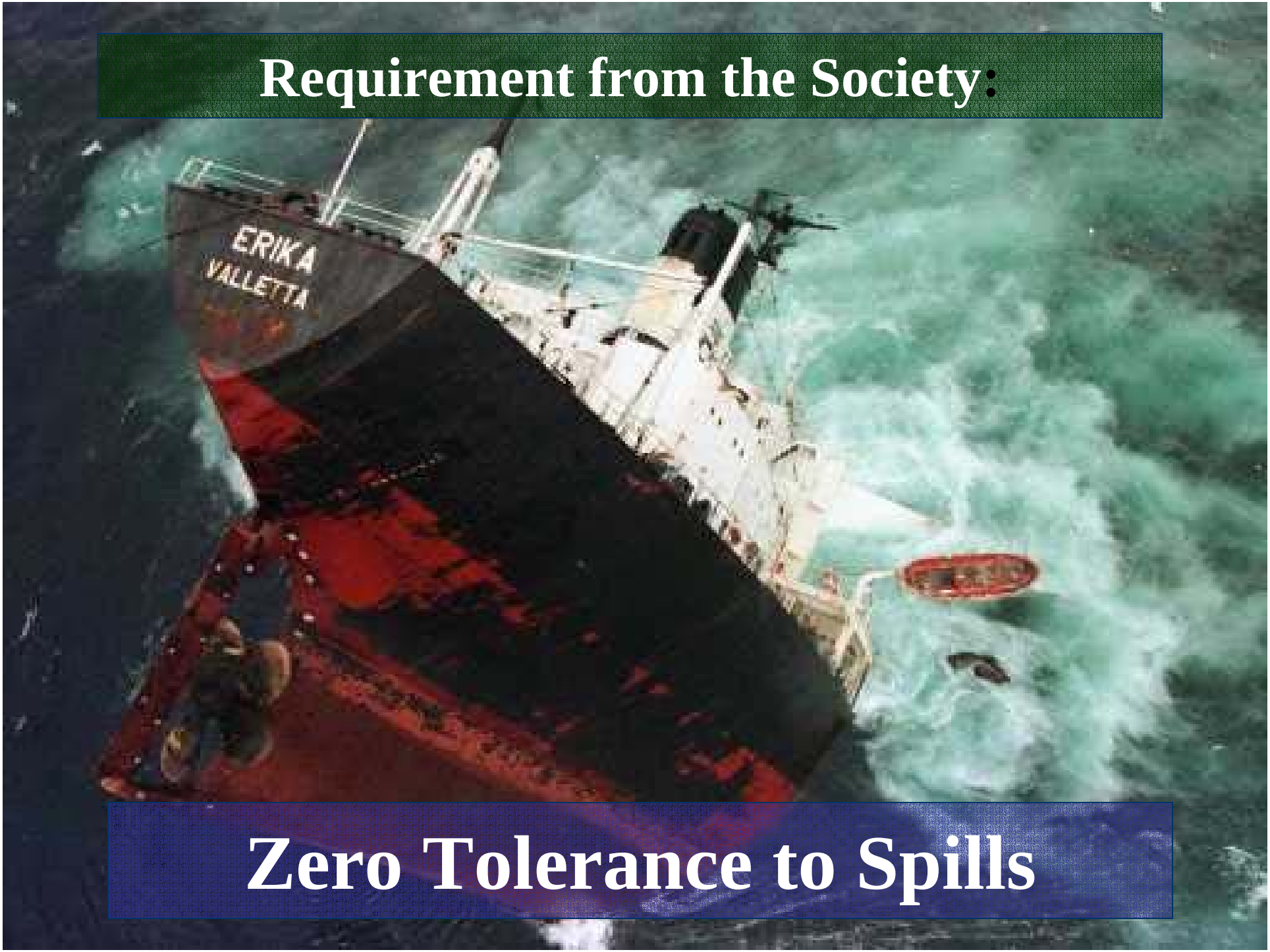


Environmental Challenges

Ship Life Cycle Emissions -35000 grt Ro-Ro Case



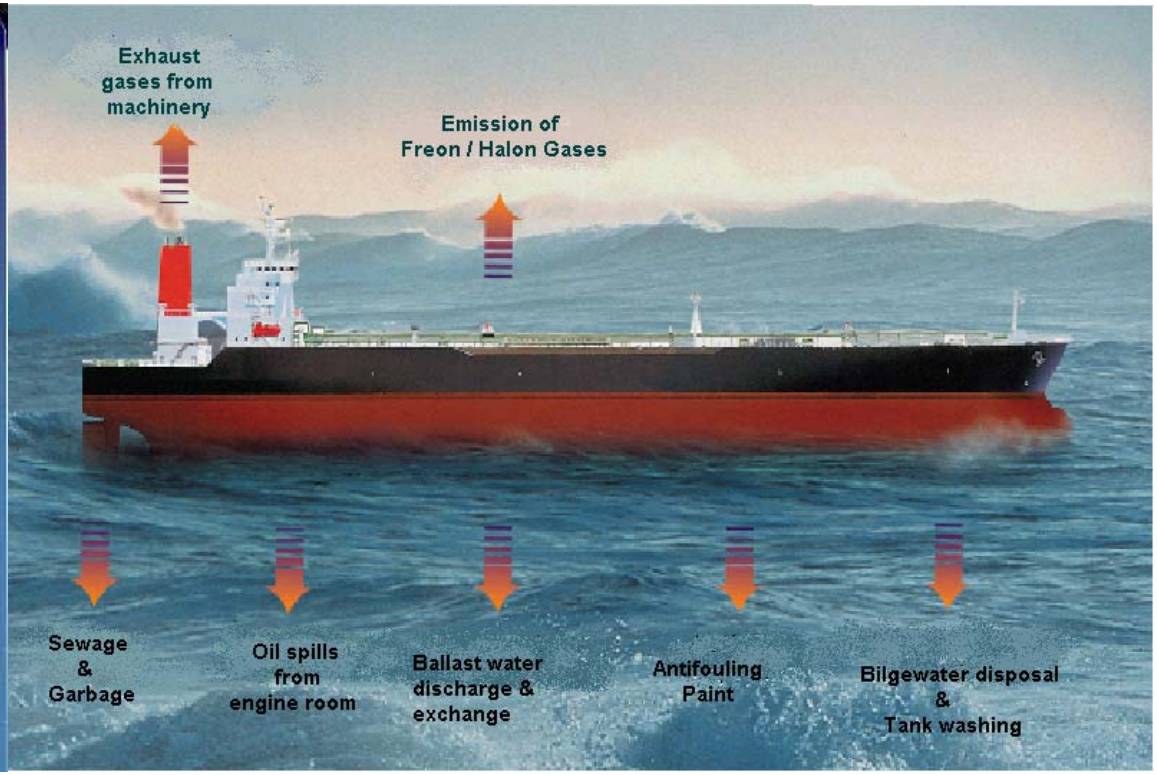
	Fossil energy	CO2	NOx	SOx	CO	CxHy	PM	TBT	Solid waste
Scrapping [ton]	282,2	820,0	8,3	4,1	-14,6	3,6	0,7	0,4	124,7
Maintenance [ton]	259,1	480,0	2,1	3,1	2,8	2,3	0,4	1,4	103,9
Operation [ton]	24810,0	79500,0	1885,0	498,7	41,1	86,0	62,2	7,3	237,2
Building [ton]	777,9	1130,0	7,3	8,8	21,3	3,4	1,4	0,1	173,8



Requirement from the Society:

Zero Tolerance to Spills

Environmental Challenges



Requirements to Emissions and Discharges are Continuously being Strengthened

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Environmental Challenges

Ship Scrapping

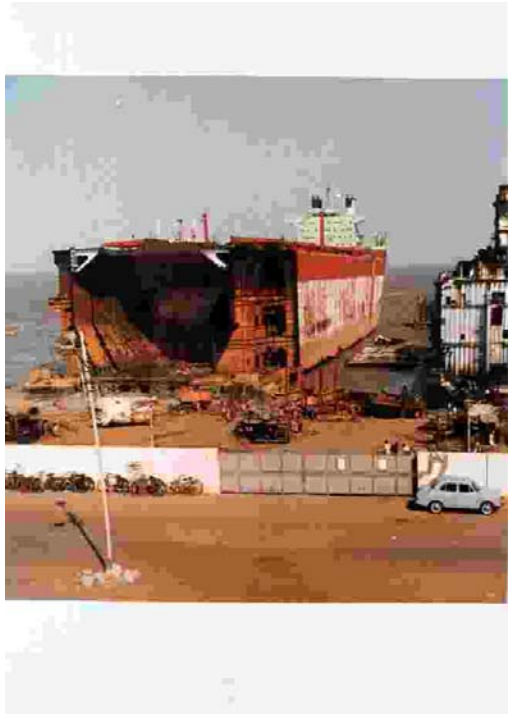
Existing Ships

Challenge:

- *To ensure Environmental Friendly Dismantling of Ships - 99% is being Recycled*

Methods:

- *Prepare the Ship for Scrapping*
- *Self Check*
- *Independent Inspection and Verification by Class*
- *Issuance of Inventory List and Statement*



Who is responsible ?

New Ships

Challenge:

- *Design for Recycling*

Methods:

- *Specification Requirements*
- *Use Environmental Friendly Materials and Methods*
- *Document in early Phase*
- *Issuance of 'Green Passport'*
- *Follow Ship as updated Document through Life Cycle*

Environmental Challenges

TBT Free Antifouling

Background:

- *AFS Convention in Place*
- *Requirements from 1. January 2003*

Challenge:

- *How to adhere to a New Convention*
- *Level of Documentation, Control and Inspection*

Most probable outcome of current debate:

- *Limit the involvement to Document Review only*

DNV's Strategy:

- *Extend to include Survey, Sampling and optional Testing of TBT Content*

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Environmental Challenges

Ballast Water

Present Situation:

- *No Requirements*
- *Guideline Implemented in some Regions*

Challenge:

- *Limited Effect due to Many Exemptions*
- *Different Requirements around the World*

Future Requirements:

- *Mandatory Exchange/Treatment Requirements*
- *Unified Basic Requirements (Tier 1)*
- *Strengthened Requirements in Exposed Regions (Tier 2)*
- *Exemptions based on Risk Assessment (Tier 0)*

Challenges:

- *Long Implementation Phase*
- *Still Many Exemptions*
- *Technologies Not in Place*

Will Society accept the proposed regime ?

Will we get local requirements on top of International ones ?

Environmental Challenges

Emission Trading

Present Situation:

- *No Established International Systems*
- *No Market Mechanisms in place*
- *Several Pilot Initiatives around NO_x, SO_x and CO_2*

Future Situation:

- *Well Regulated Market for Land Based Industry*
- *Ship Industry Represents a Potential Trading Partner*

Challenges:

- *Establish Trading Mechanisms*
- *Establish Ship Baseline/Indexing*
- *Monitoring and Verification Methods*

Class Societies have technical competence and verification experience

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DNV

Survey failures and ISM system failures

- WHO IS LIABLE ?

The responsibility for the ship, its condition, operation and maintenance at any point in time is the responsibility of the Owner

Class (as other involved parties) is of course professionally responsible for gross negligence and wilful misconduct

The ISM Code -

- is intended to address the human and management element of ship operations

" - a complete management philosophy -"

- safety and environmental protection policy
- instructions and procedures to ensure safe operations
- defined levels of authority and communication lines
- reporting accidents and non-conformities
- prepare for and respond to emergency situations
- internal audits and management reviews.

The ISM Code and the Class Societies

Did Class take on a role that it was comfortable with ?

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ISM and Class Involvement

The main problems with the ISM code from a Class point of view:

- Just another auditing scheme
- Class only involved every 2,5 years
- Nearly impossible to fulfil intended role unless also involved with main class and statutory part

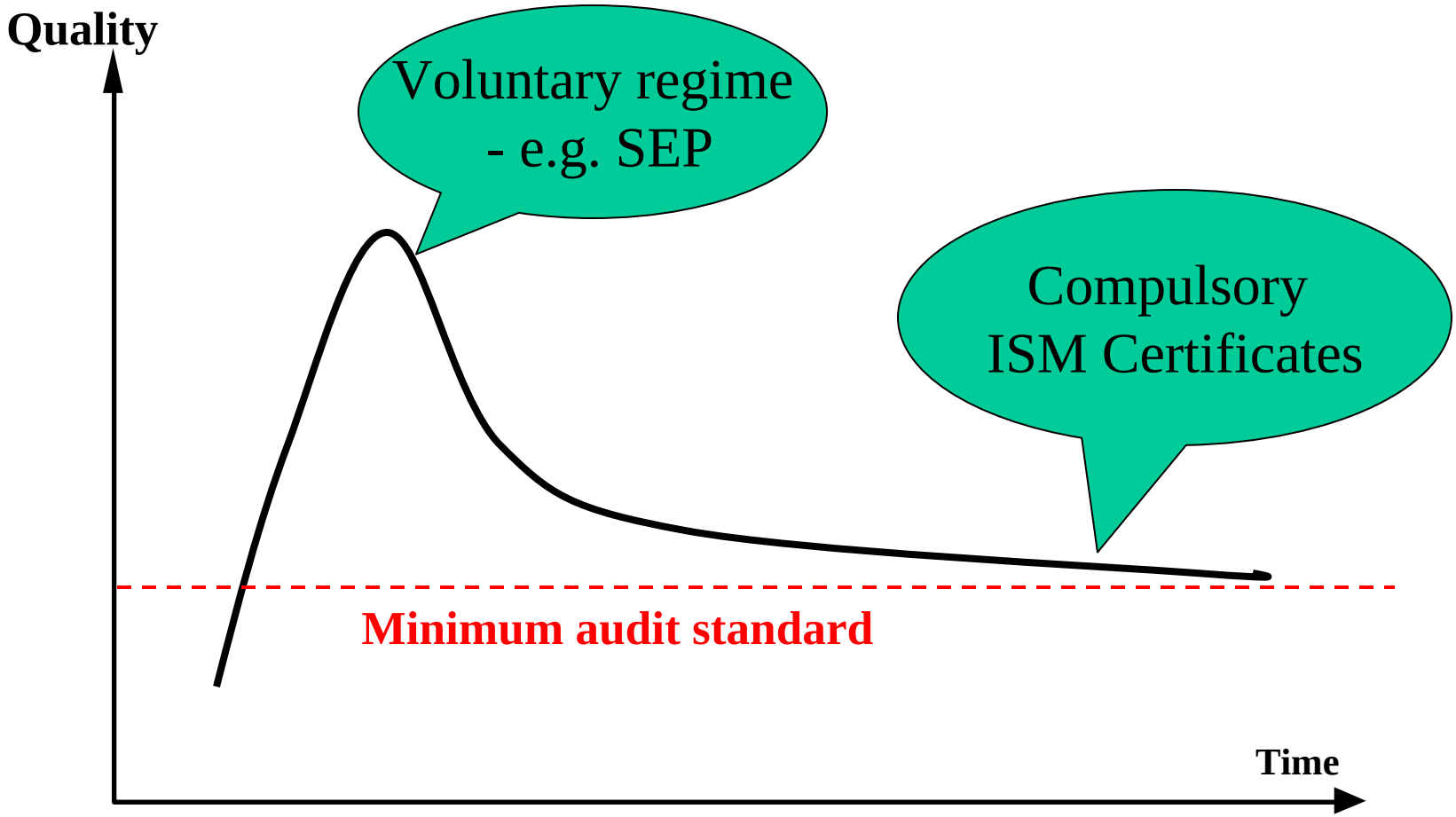
DNV strongly believes that Class and ISM involvement must be aligned

ISM and Class Involvement

Why Align ISM and Class ?

- Ship audits may take place every 3 years, but surveyors visit the ship much more frequently
- Separation of the condition of the ships & their equipment from the management is artificial
- Greater co-operation between surveyors and auditors will increase the value of the services both are providing
- Management system failures discovered by others (Flag or Port State) will threaten the reputation of Class

Lower standards when compulsory ?



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Surveys and Audits by Class

The quality of surveys and audits is under continuous focus in DNV:

- Qualification scheme for surveyors
- Monitoring procedures for Surveyors and Surveys
- Experience exchange
- Identification system for possible substandard vessels

The quality of the survey is probably the most critical element in the complete chain

Safety and quality……

- the HUMAN ELEMENT

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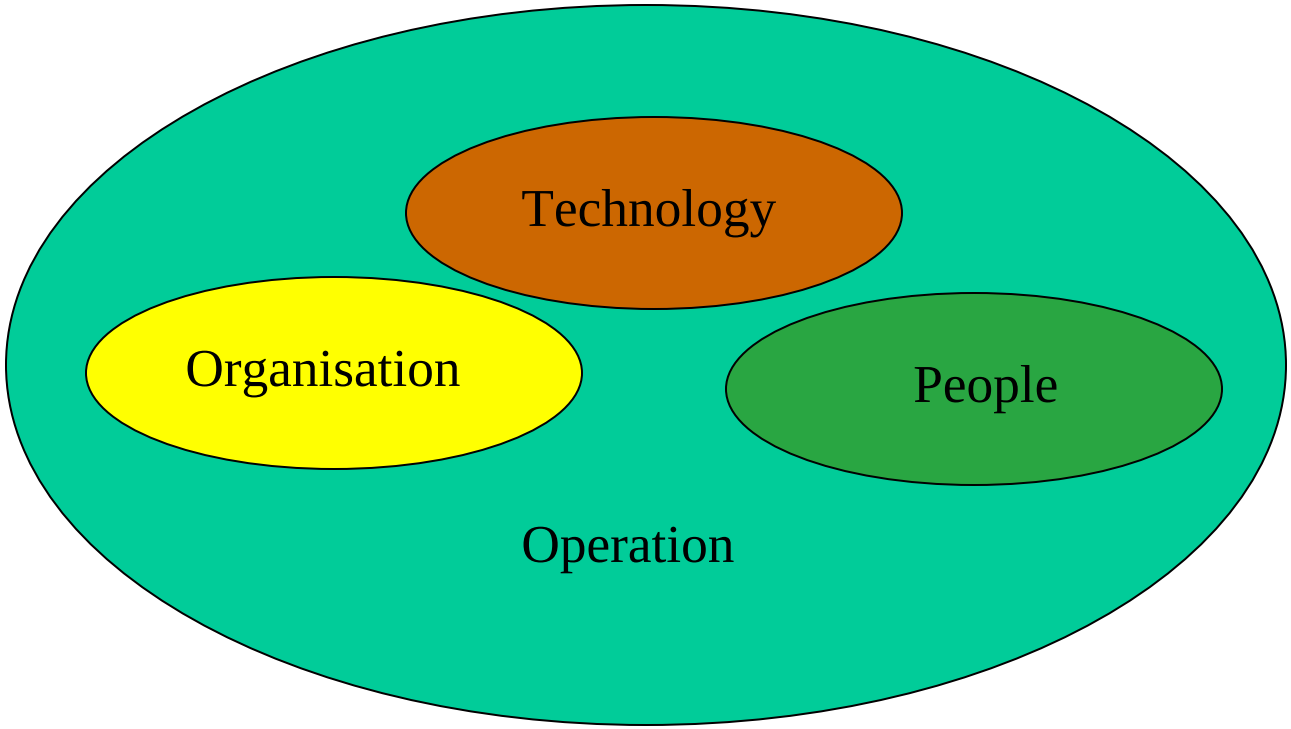
Safety and quality……

- it is all about:



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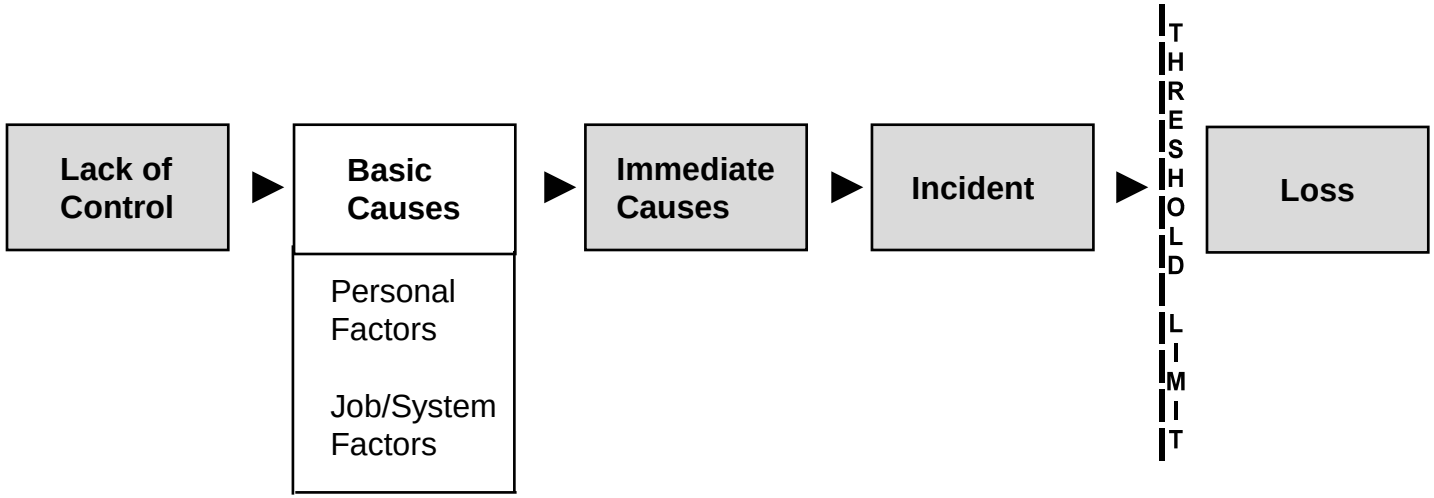
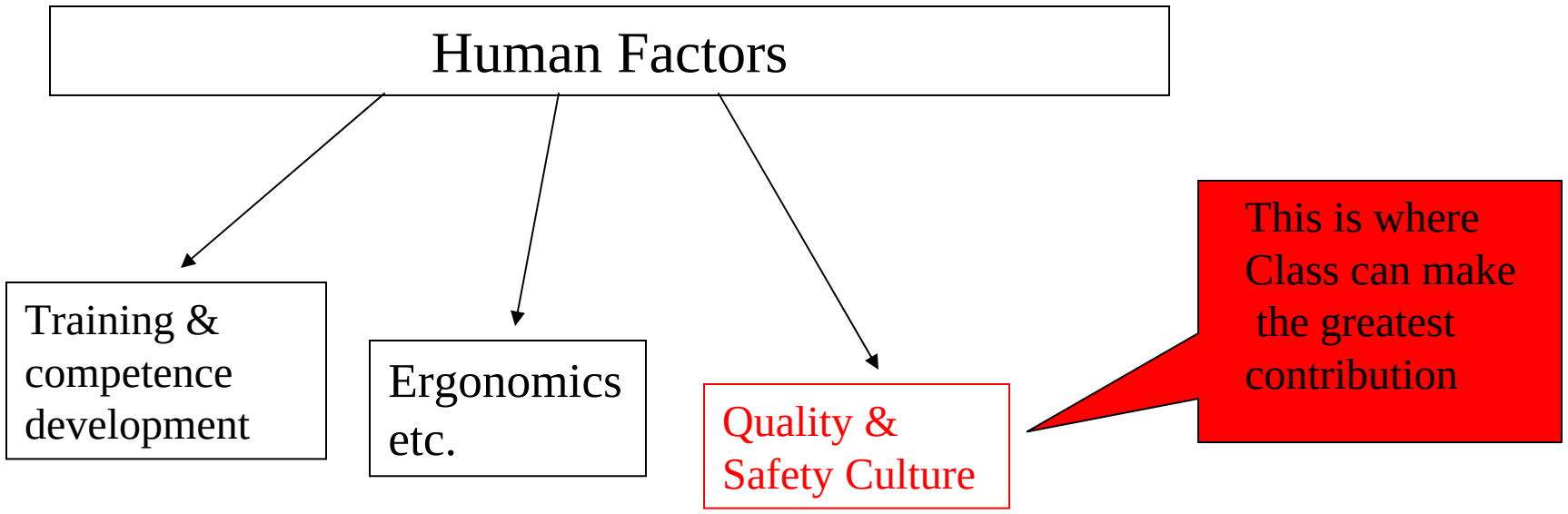
Causal analysis methodology



70-80% of accidents are caused by human error, and this number has not changed over time

Human Factors:

Where can Class contribute ?



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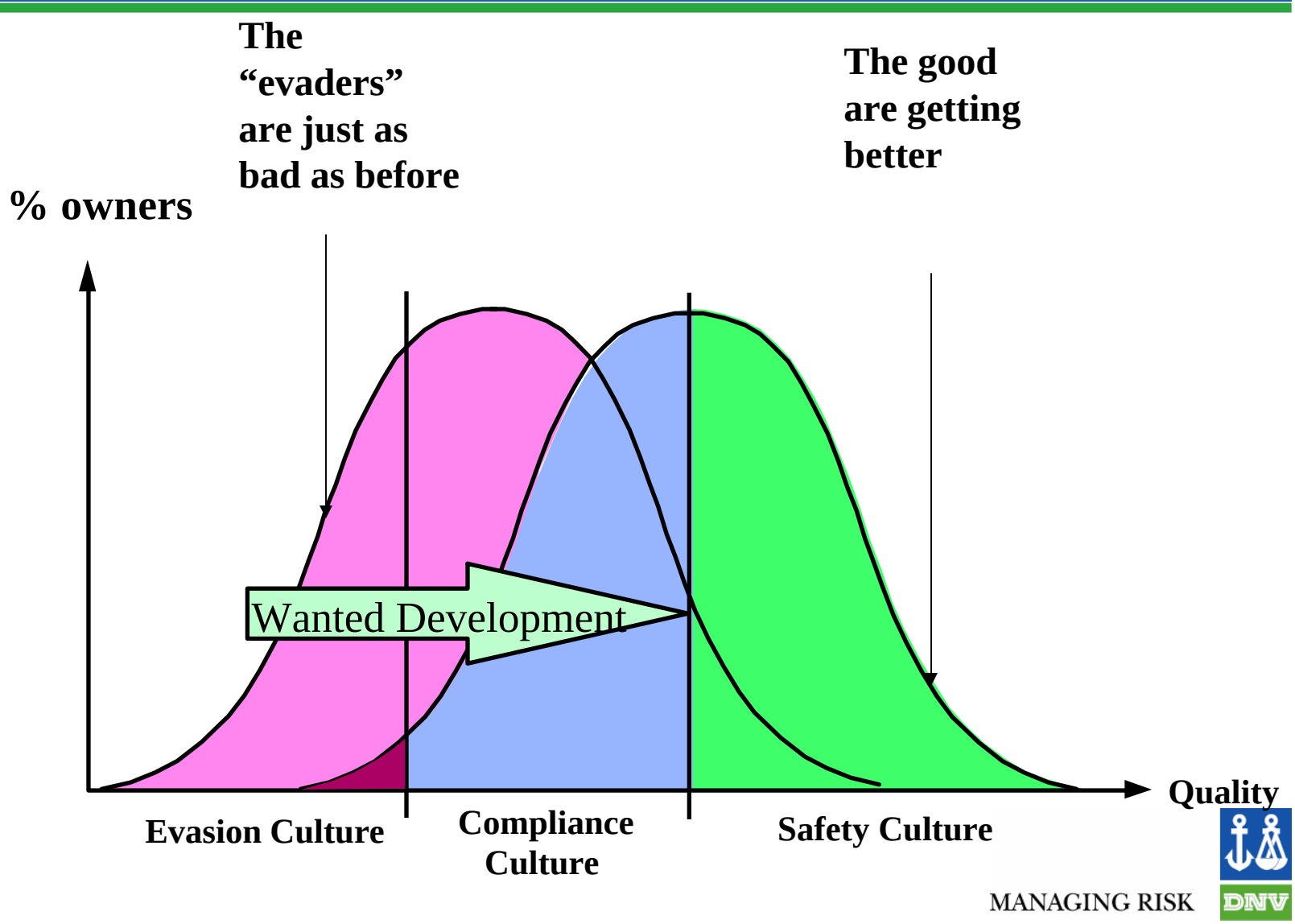
Has ISM changed the Safety & Quality Culture ?



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Safety and Quality Culture

Creating a safety and quality culture within the company is an important element...

- Top level commitment
- Encourage desired behaviour, then desired attitudes will follow
- Walk the talk - role models are important
- Address undesired behaviour directly
- Create peer pressure towards correct behaviour
- Monitor and re-enforce desired behaviour

Building a Safety and Quality Culture

- Building a safety and quality culture in the organisation - it starts with the top

➢ some examples:

- Motivation and attitudes
- Competence development
- Incident reporting and analysis
- Set individual goals on managers - and measure achievement

Concluding remark:

We do not need more rules and regulations, but rather live up to and follow the intentions of those we already have.

“Back to Basics”

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