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**SAFER
SHIPPING**

IUMI Conference

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Permanent Secretary

**International Association
of Classification
Societies**

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Maritime Safety
A Record of
Continuous Improvement

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**Does the quality of the
ship matter to cargo
underwriters**

YES

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**What's been happening
in improving quality**

What's the track record

AND

Who has caused this improvement

AND

The role of IACS

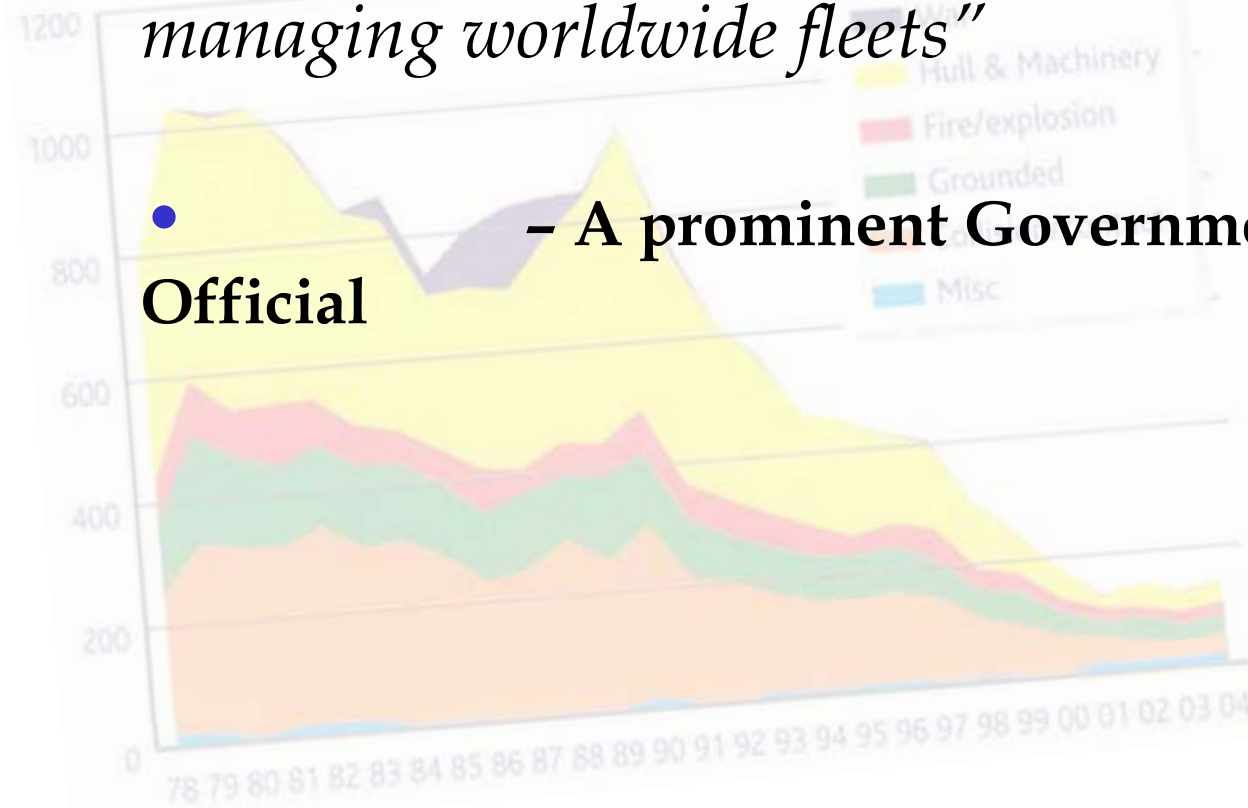
Lastly

**How can a cargo underwriter help
reduce the risk of loss**

Maritime Safety – The Perception

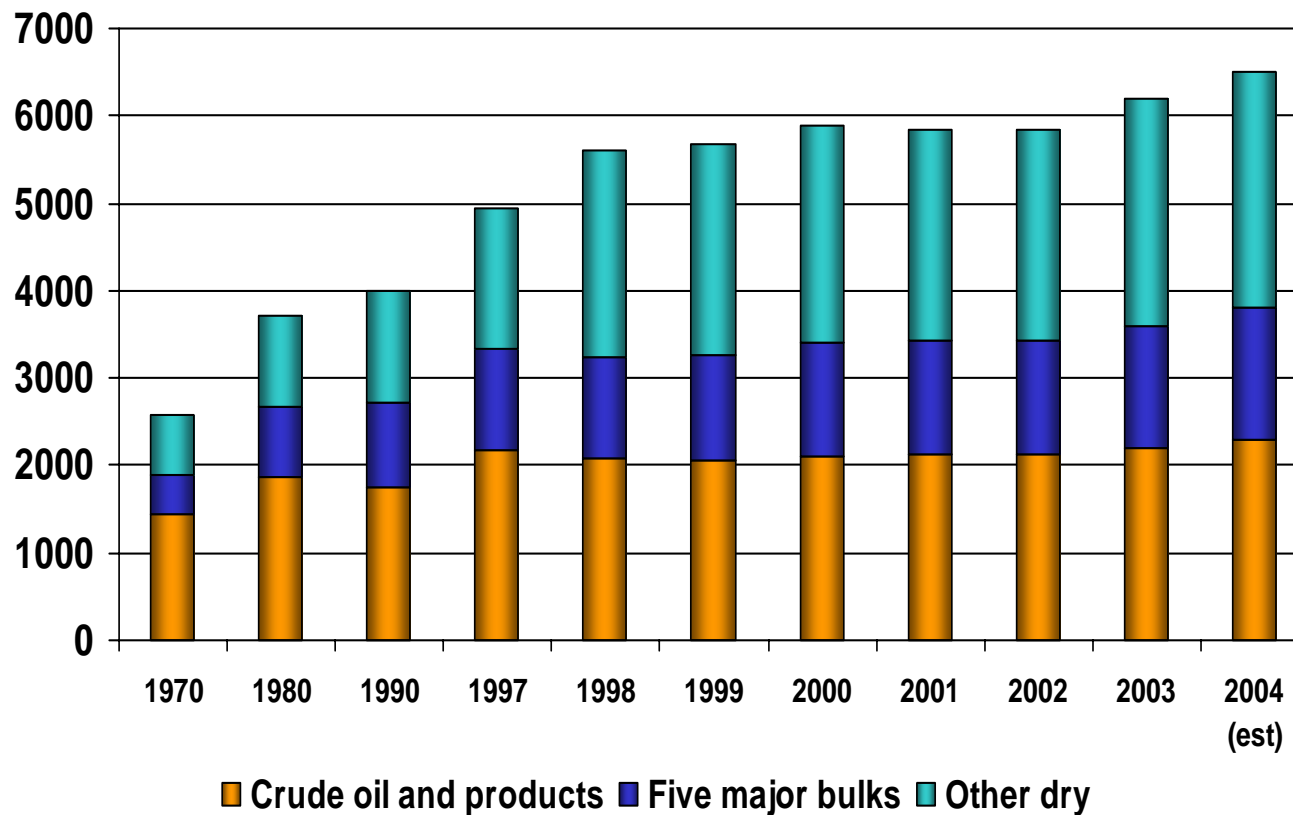
- "The global maritime industry has a reputation of huge problems in managing worldwide fleets"

- **Official** – A prominent Government



International Seaborne Trade

in million tons of cargo



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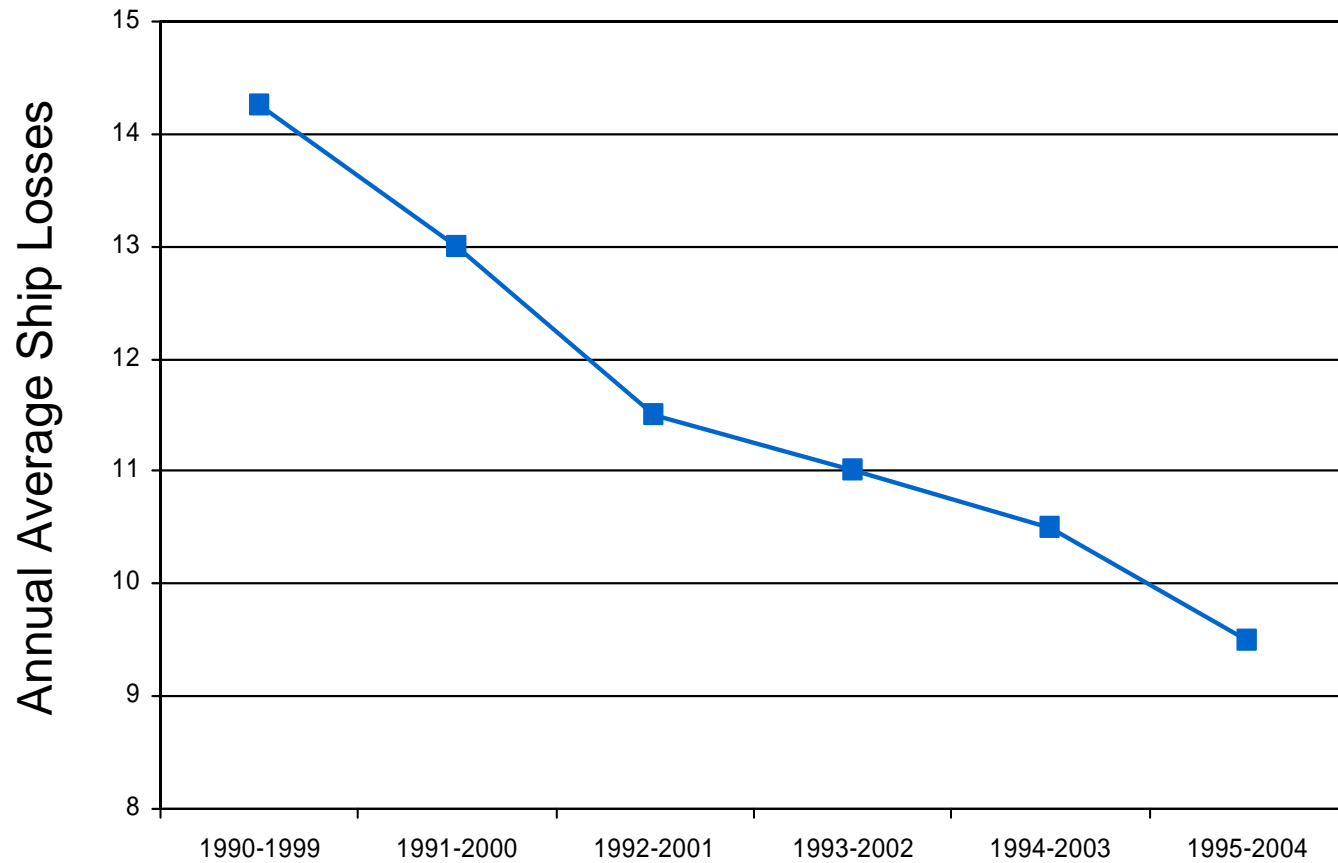
Source: UN, Review of Maritime Transport
Major bulks: Iron ore, grain, coal, bauxite/alumina and phosphate

An Impressive Safety Performance

- The international shipping industry is carrying more cargo, more safely than at any time in history

Improved Bulk Carrier Safety

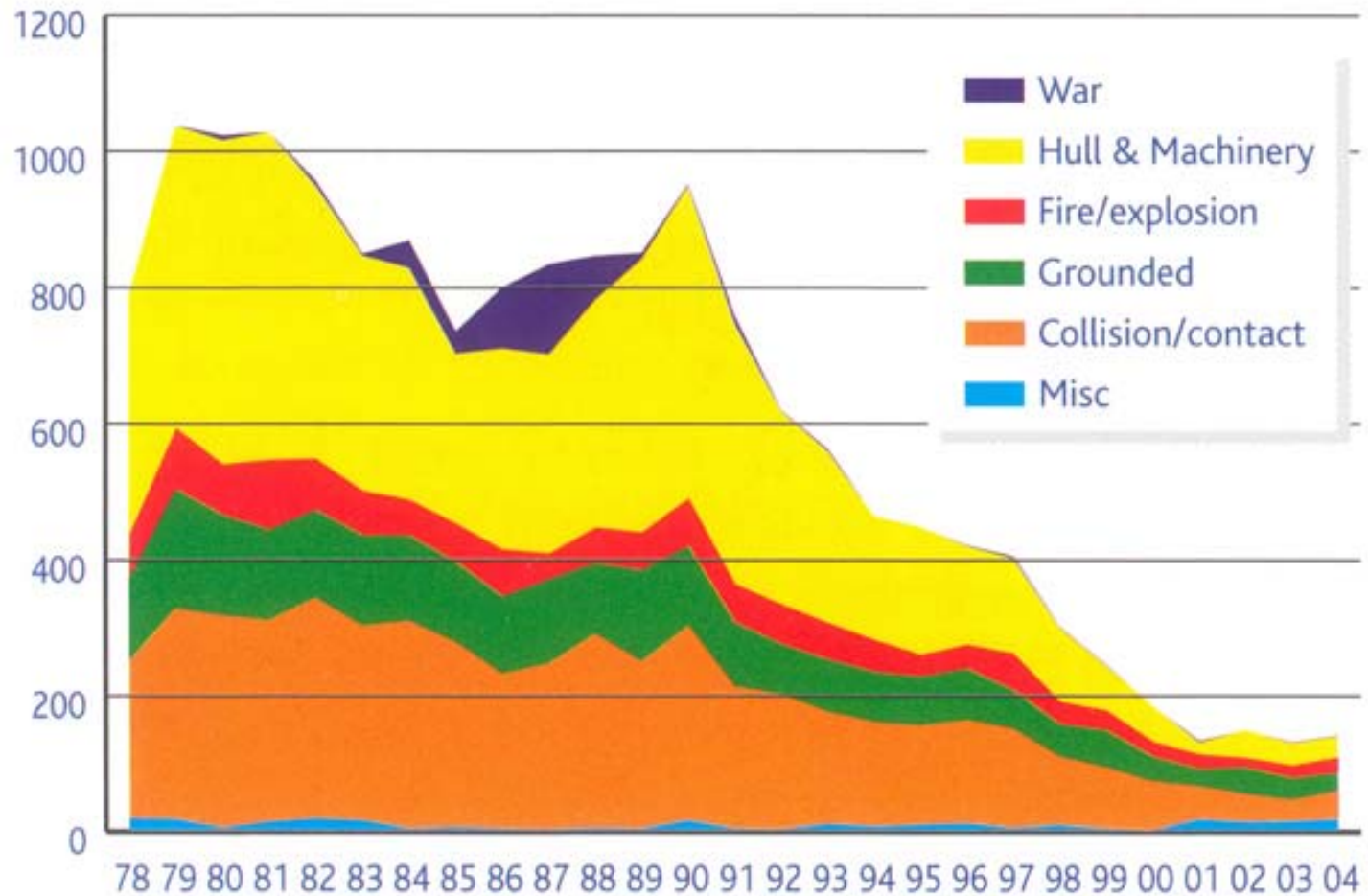
Total losses - bulk carriers > 10,000 dwt



Source: Intercargo

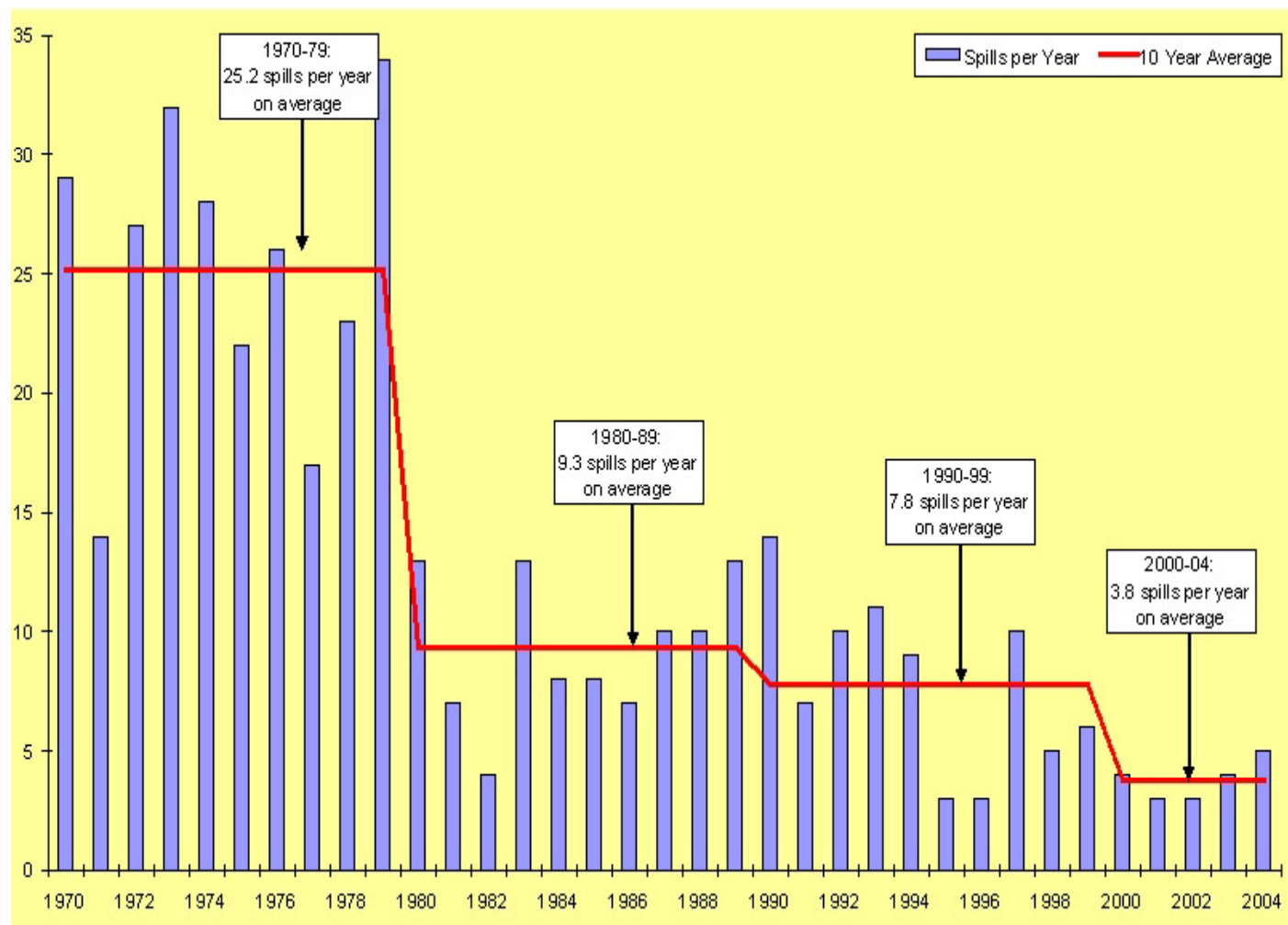
Improved Tanker Safety

Tanker incidents by cause 1978-2004



Source: Intertanko

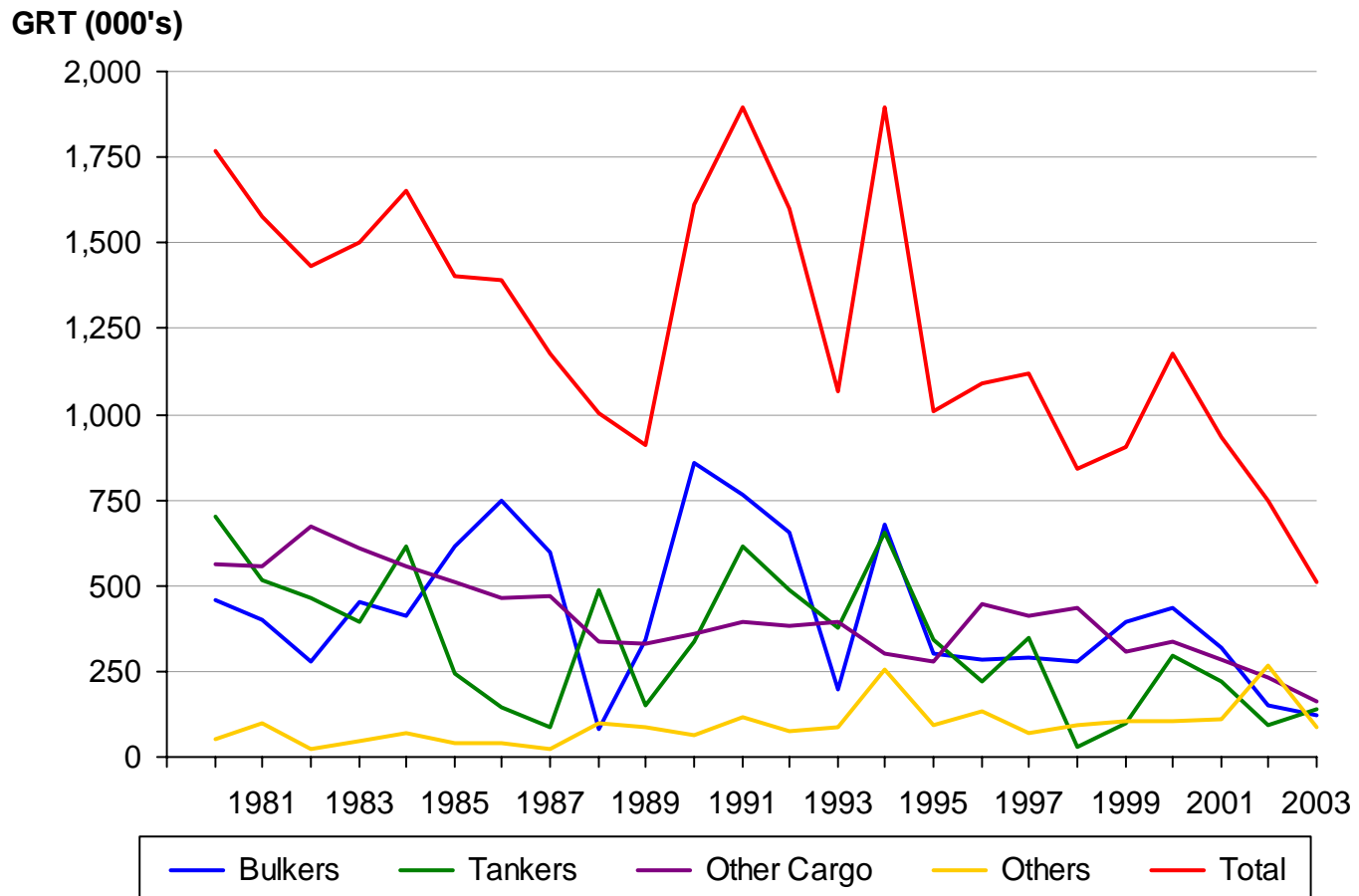
Number of Spills Over 700 Tonnes



Source: ITOPF

Total Losses 1980-2003

by tonnage Vessels > 500Grt



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Source: LMIU for Joint Hull Committee

**Catastrophic events
versus
Partial cargo losses**

UK P&I Club Study

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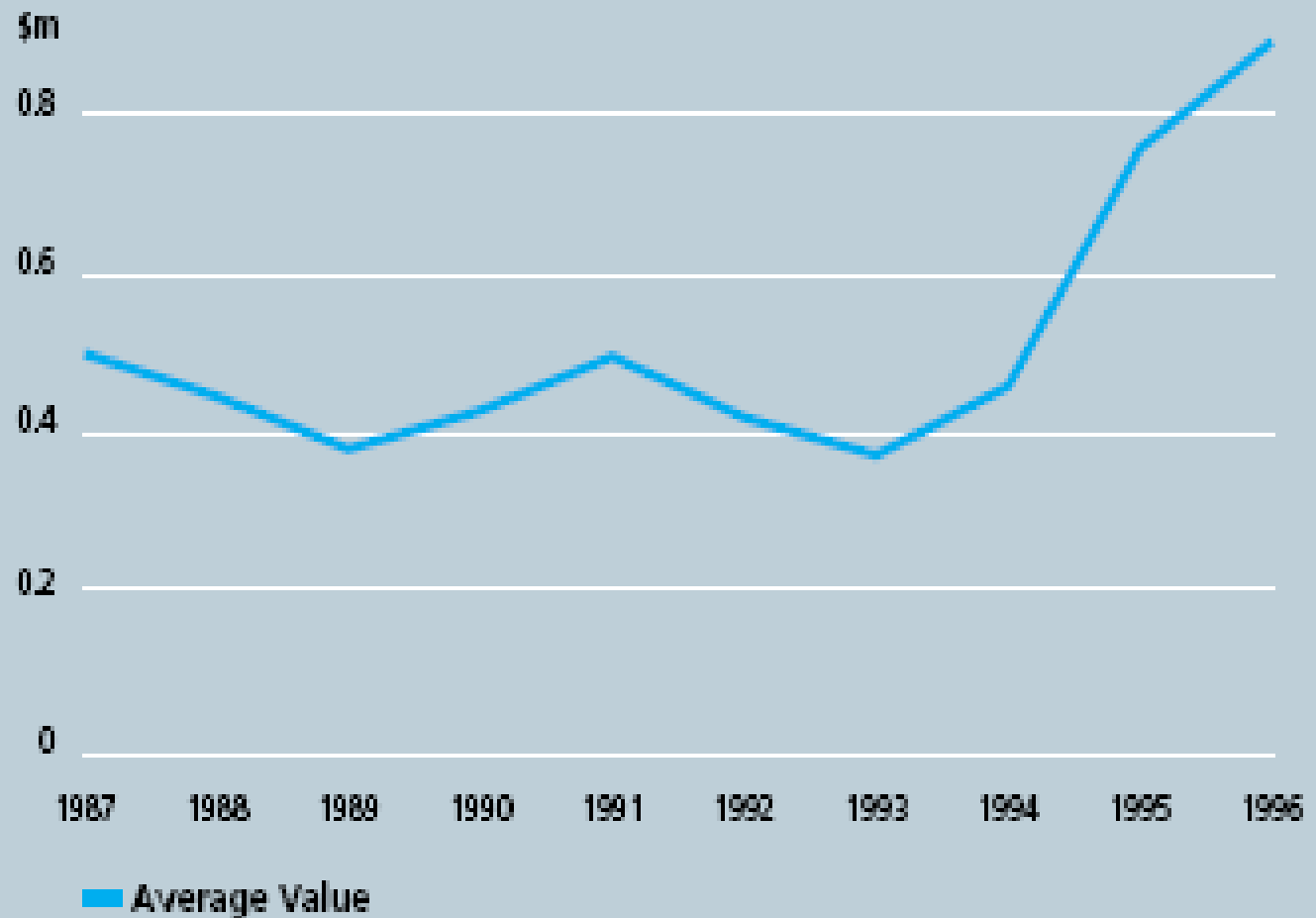
UK P&I Club Study

Large Claims

72% of all claims

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Value of Major Claims increasing



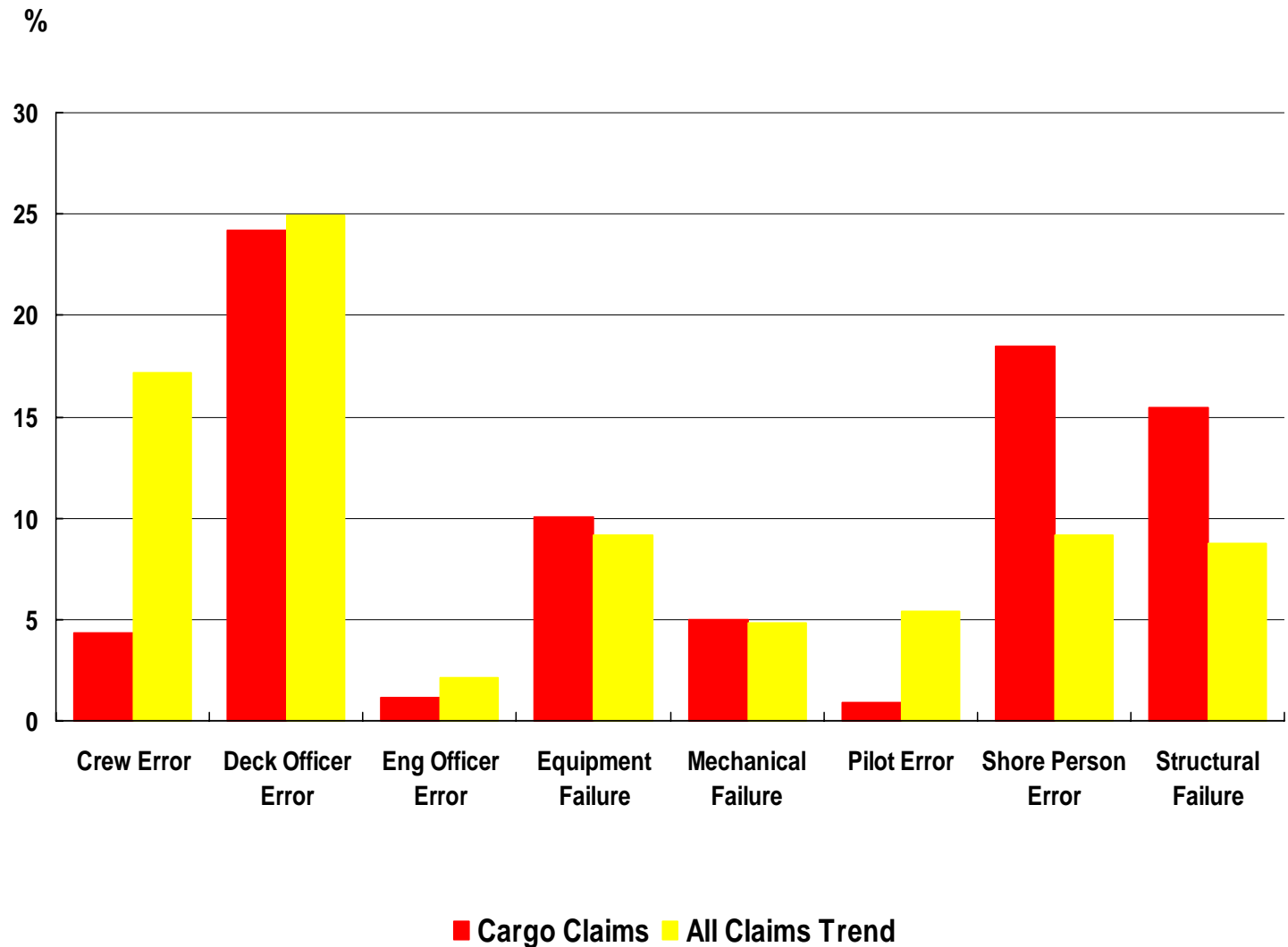
Ship Failure

54% result in a cargo claim

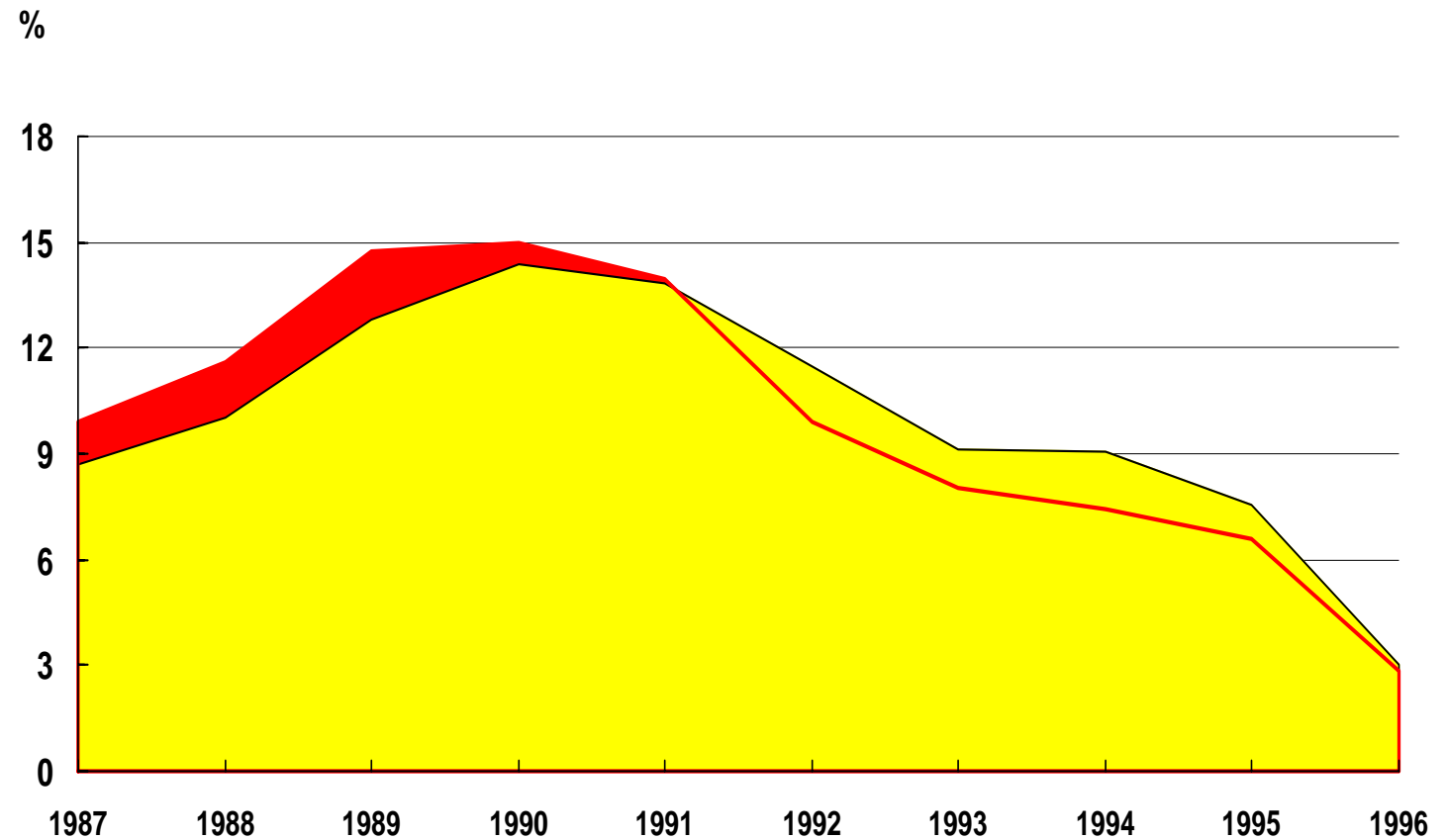
- **Structural**
- **Mechanical**
- **Equipment**

“Dramatic reduction on ship failure claims is one of the success stories of recent years”

Principal Cause of Major Claims



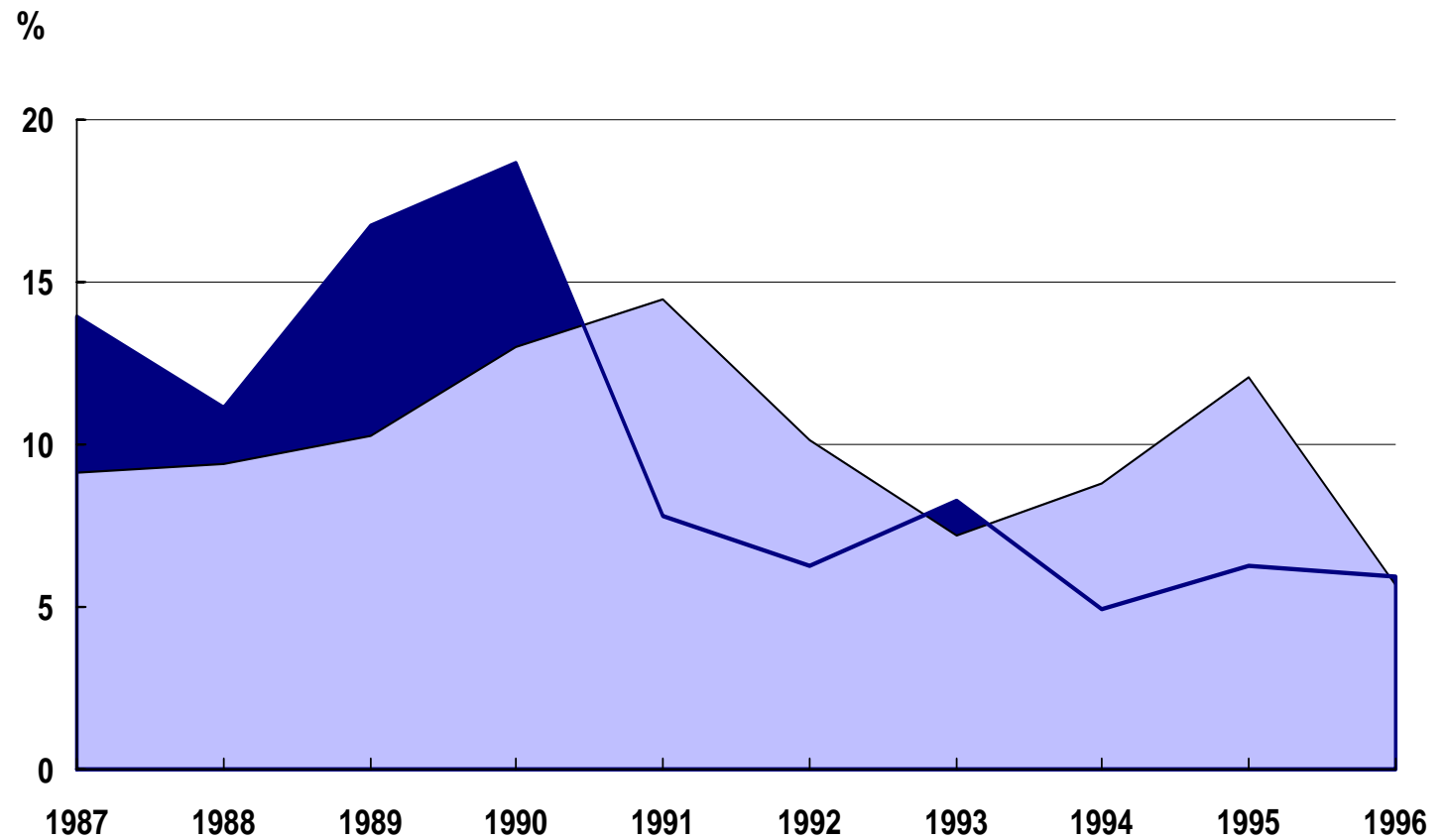
Ship Failure – Frequency/Value



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■ All Major Claim Trend ■ Ship Failure Frequency Trend

Ship Failure – Frequency/Value



■ All Major Claim Value Trend ■ Ship Failure Trend Value

**Cargo claims – 40% of all claims
by frequency**

**– 27% of all claims
by value**

**Physical damage and wet damage
pre-eminent causes of loss**

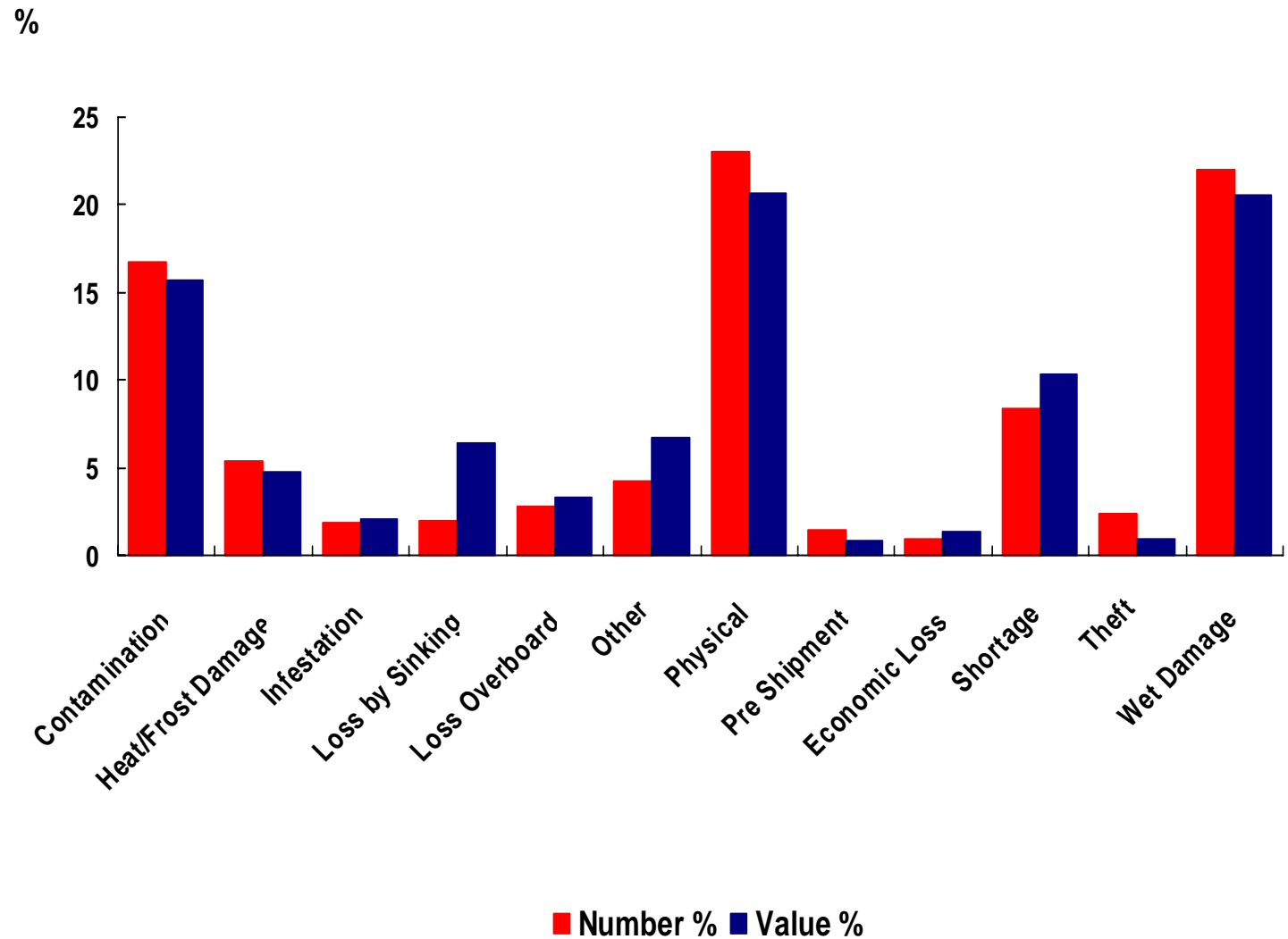
**Hatch cover leakage is still
responsible for most**

- 35% of wet damage**
- 50% of those claims involve
steel and dry bulk**

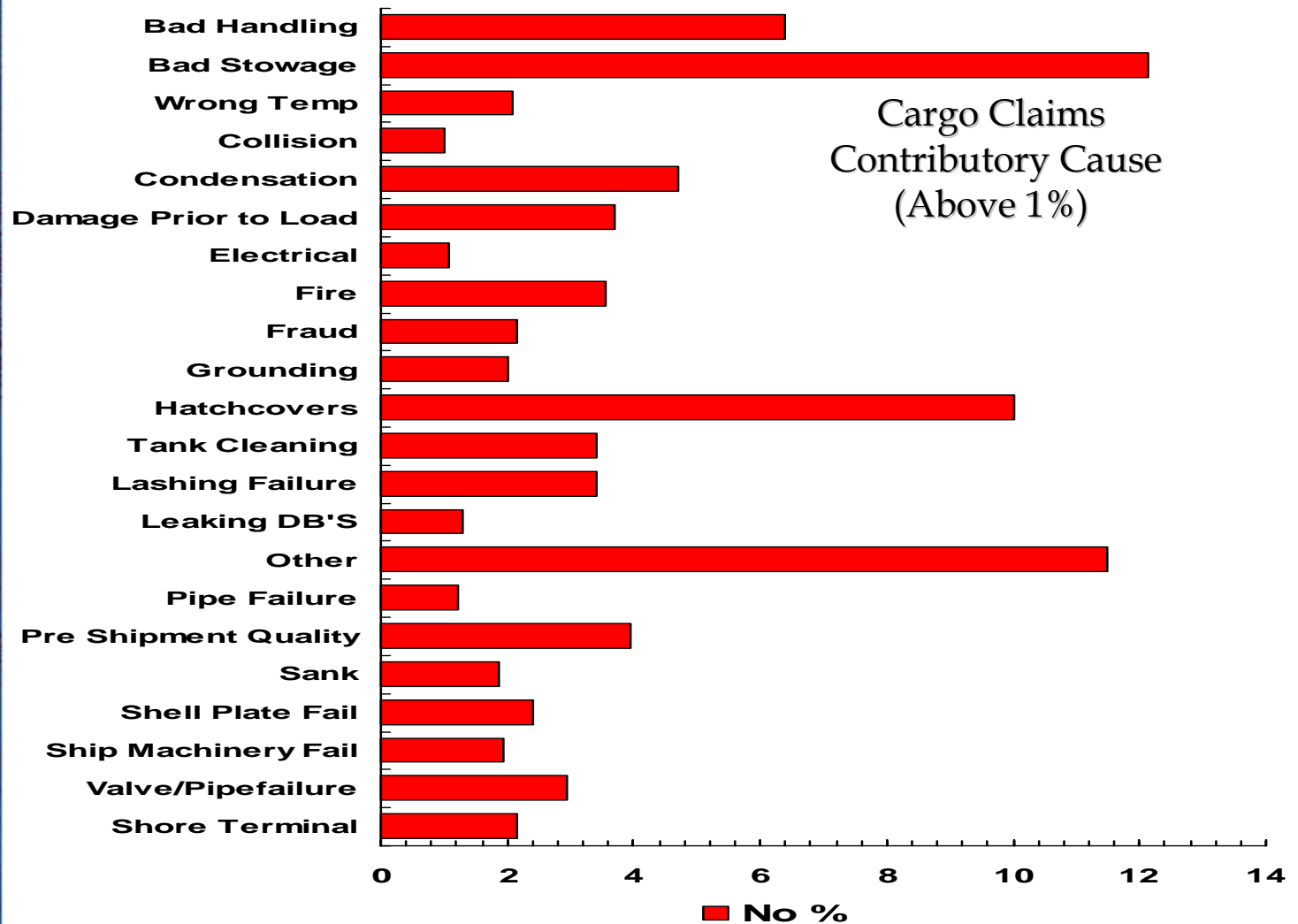
“Hatch cover claims start early in the ships life – hatch covers must be maintained continuously from an early age”

SHIPOWNERS & SURVEYS

Principal Type of Damage



Contributory Causes - Frequency



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Perfection is Not Possible



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Working Together

A responsibility to improve standards for the safety of life, property and the marine environment.

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The Maritime Safety Regime

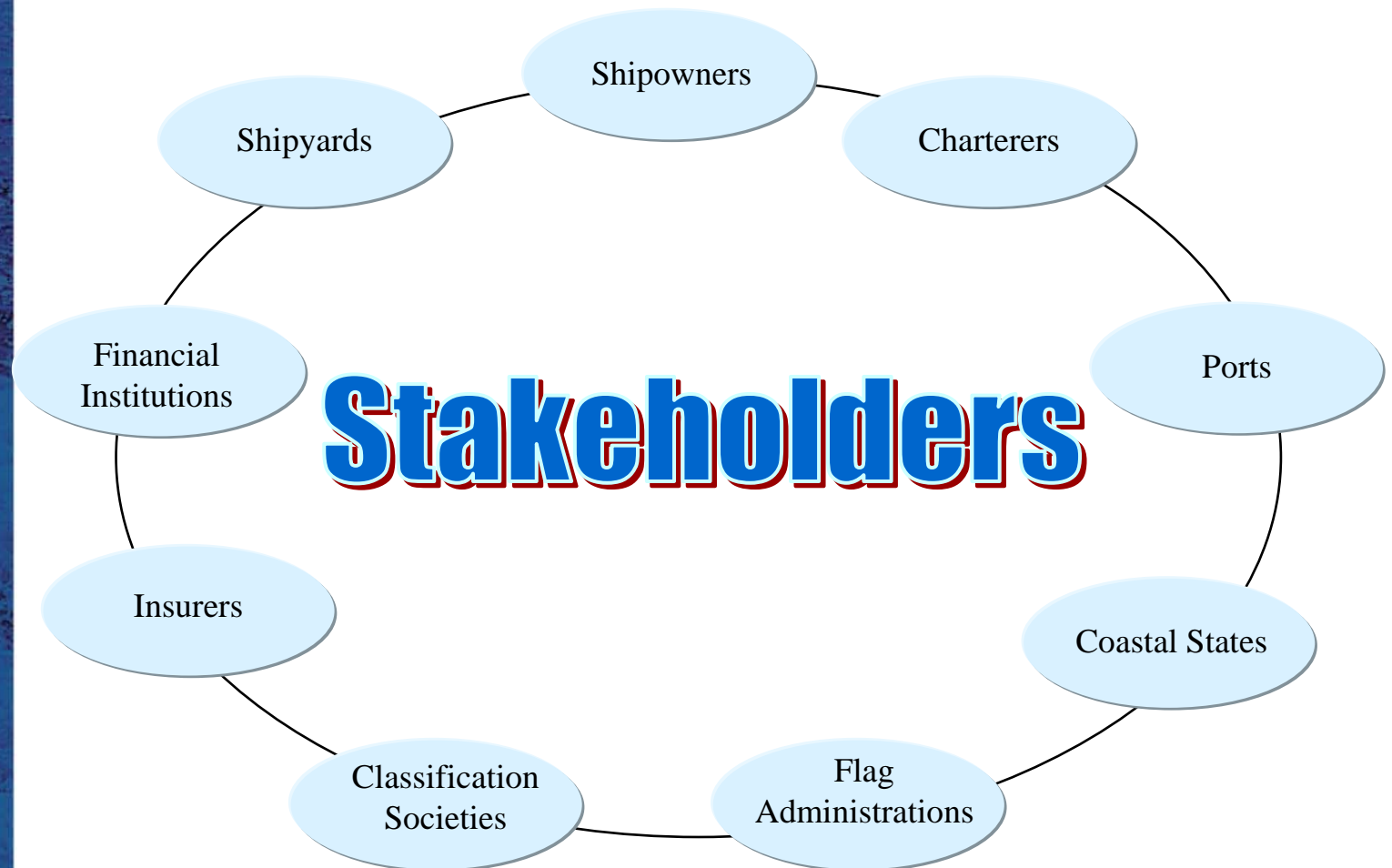
- Shipowner
- Ship Manager
- Flag State
- Port State
- IMO
- Class
- Underwriter
- Charterer



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"The Safety Chain"



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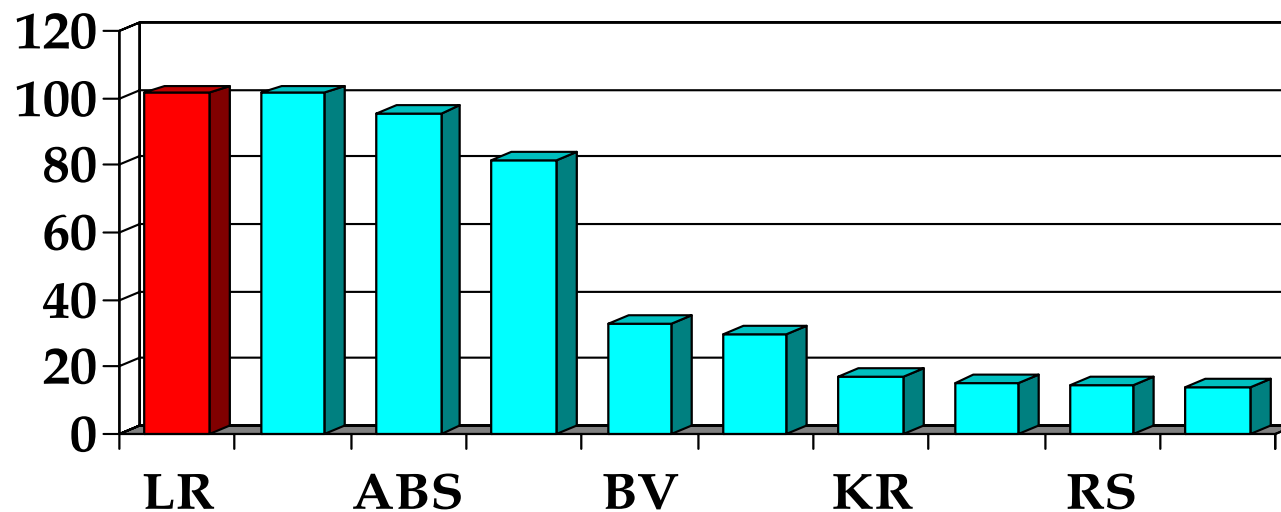
**IACS members are only
One Link
in the Chain of Safety
Responsibility**

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- Rules cover 90% of the worlds fleet by tonnage
- Formed 1968 - 10 Members & 1 Associate
- ABS, BV, CCS, DNV, GL, KR, LR, NK, RINA, RS + IRS
- 46,000 Ships in IACS Member Class
- 6,000 Surveyors working from 1,000 Offices
- 600,000 Ship Surveys Annually
- However on 40% of worlds fleet by number of ships

Classed Fleets - April 2000 [Seagoing Ships >100grt]

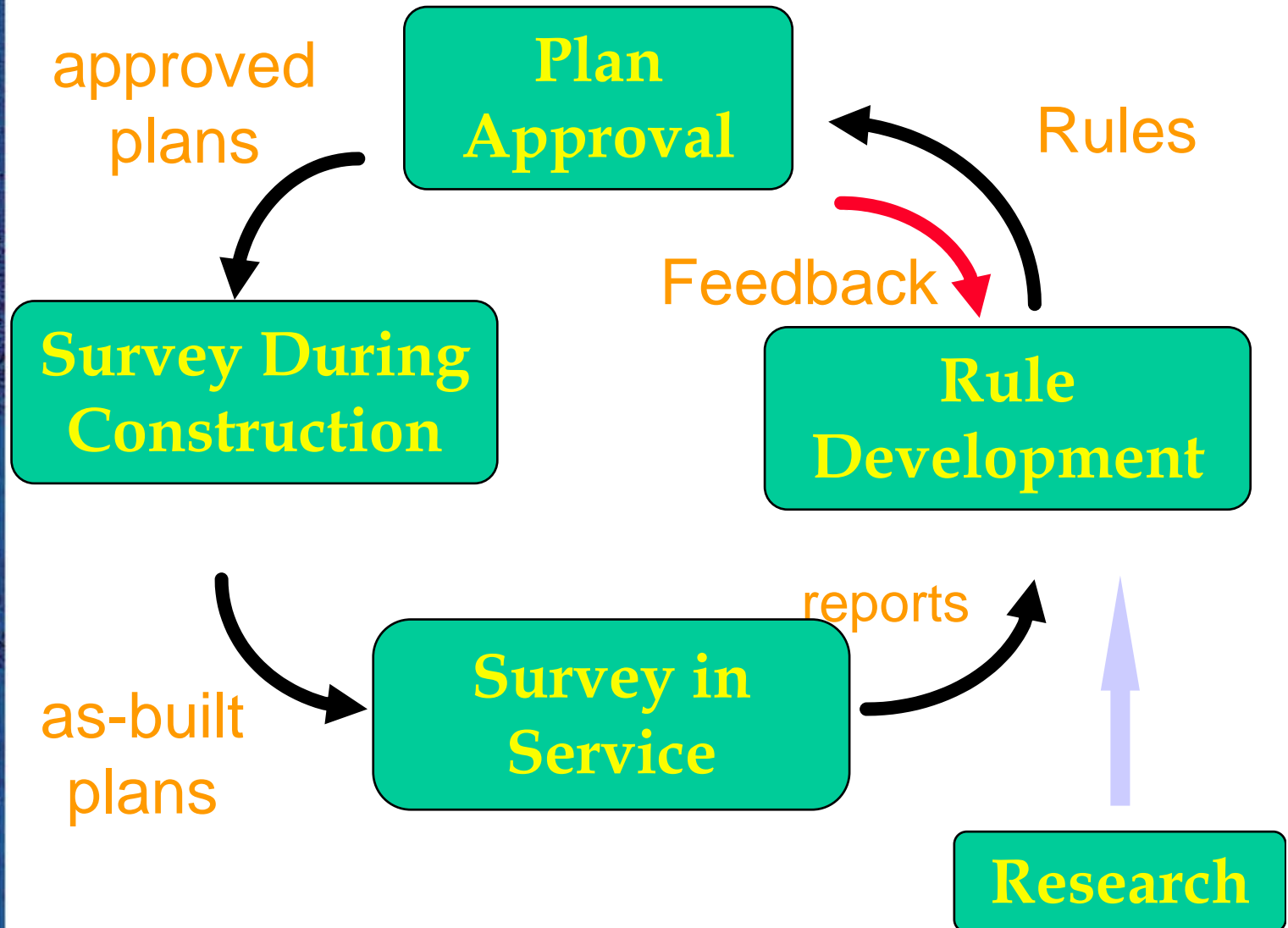
Million GRT



- **Web site (UR's and PR's)**
- **professional know-how / technology bank**
- **Research & Development projects**
- approx. \$50m annually

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Ship Classification Cycle



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IACS Role

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Specific Measures

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COMMON STRUCTURAL RULES

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- More robust
- Fit for purpose
- Easier inspection and maintenance

- Net scantling approach
- Buckling and ultimate limit state of the hull girder
- Dynamic loading
- Fatigue life
- Transparency and ease of use

SURVEYS ON HATCH COVERS

- **UR Z**
 - Hatch cover surveys
 - Maintenance check
- **UR S 2.5**
 - Loading conditions
- **UR S 30**
 - Hatch cover strength (new ships)

IACS - Cargo Losses Hatch Covers and Coamings

UR Z	Title	Current Document in Force	Within Special Survey Section + Annual Survey Hatch Covers and Coamings
Z4	Surveys of Hatch Covers and Coamings	Rev.2 1996	
Z7	Hull Classification Surveys	Rev.12 Jan 2006	(Rev.11 June 2005) Special Survey Hatch covers and coamings, Paragraph 2.2.10 Annual Survey Scope 3.2
Z7.1	Hull Surveys for General Dry Cargo Ships	Rev.3 Jan 2006	(Rev.2 June 2005) Special Survey Hatch covers and coamings, Paragraph 2.2.4 Annual Survey Scope 3.2
Z10.1	Hull Surveys of Oil Tankers	Rev.13 Jan 2006	
Z10.2	Hull Surveys of Bulk Carriers	Rev.22 June 2006	(Rev.17 June 2005) Special Survey Hatch covers and coamings, Paragraph 2.2.4 Annual Survey Scope 3.2
Z10.3	Hull Surveys of Chemical Tankers	Rev.8 Jan 2006	
Z10.4	Hull Surveys of Double Hull Oil Tankers	Rev.4 June 2006	
Z10.5	Hull Surveys of Double Side Skin Bulk Carriers	Rev.4 June 2006	(Rev.1 June 2005) Special Survey Hatch covers and coamings, Paragraph 2.2.4 Annual Survey Scope 3.2

- **UR Z 4**
Surveys of hatch covers and coamings
(see handout)

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Cargo Underwriters

**What does all this mean to CARGO
UNDERWRITERS**

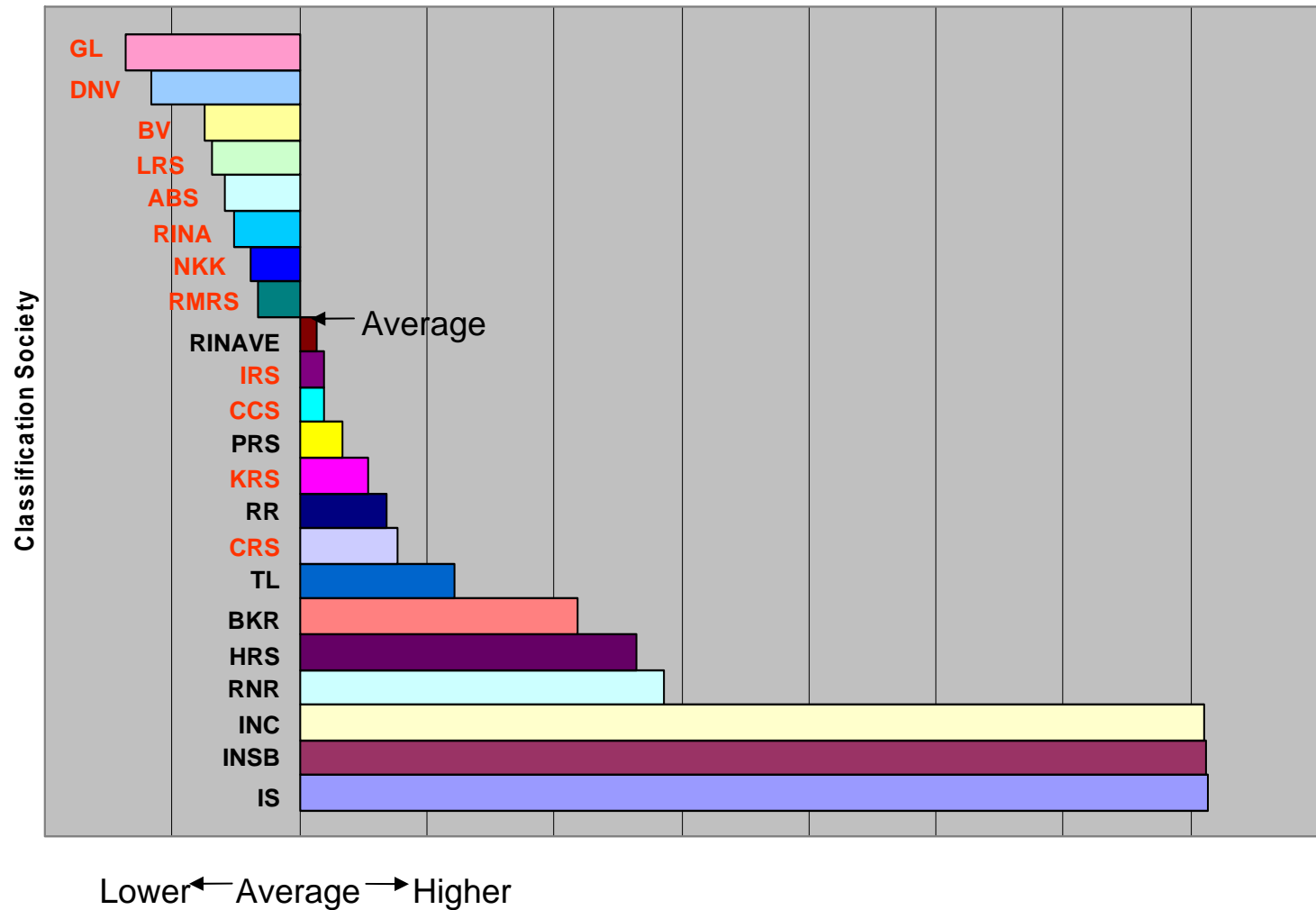
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Bad Flags – Bad Ships

- IACS Equals Good flags
- IACS + Good flag = Less risky ships
- 55 other Class Societies
- 40% of worlds fleet by number classed outside IACS

Graph of IACS Performance & PSC Detentions

Three Year Port State Detention Performance Level Per Classification Society



- **The Ship quality matters**
- **Check IACS**
- **Check Flag**
- **Check PSC record EQUASIS**

- Good Operator = Good Ship
- Bad Operator = Bad Ship

SHIPOWNER MATTERS