



IUMI International Union
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eNavigation

The Insurance Perspective



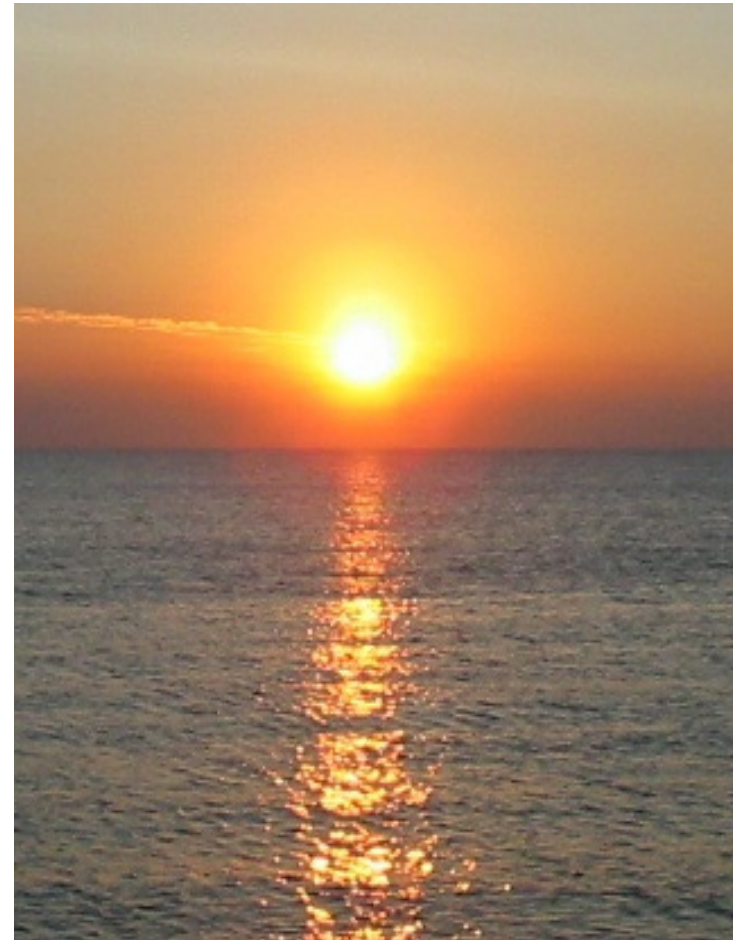
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Agenda

- Safety and Insurance
- Worldwide tonnage
- Less space, bigger ships
- Statistics
- Technology and the Human Element
- IMO Role
- The Insurance Mkt concerns



CAPTAIN, I think I missed the turn





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Safety and Insurance

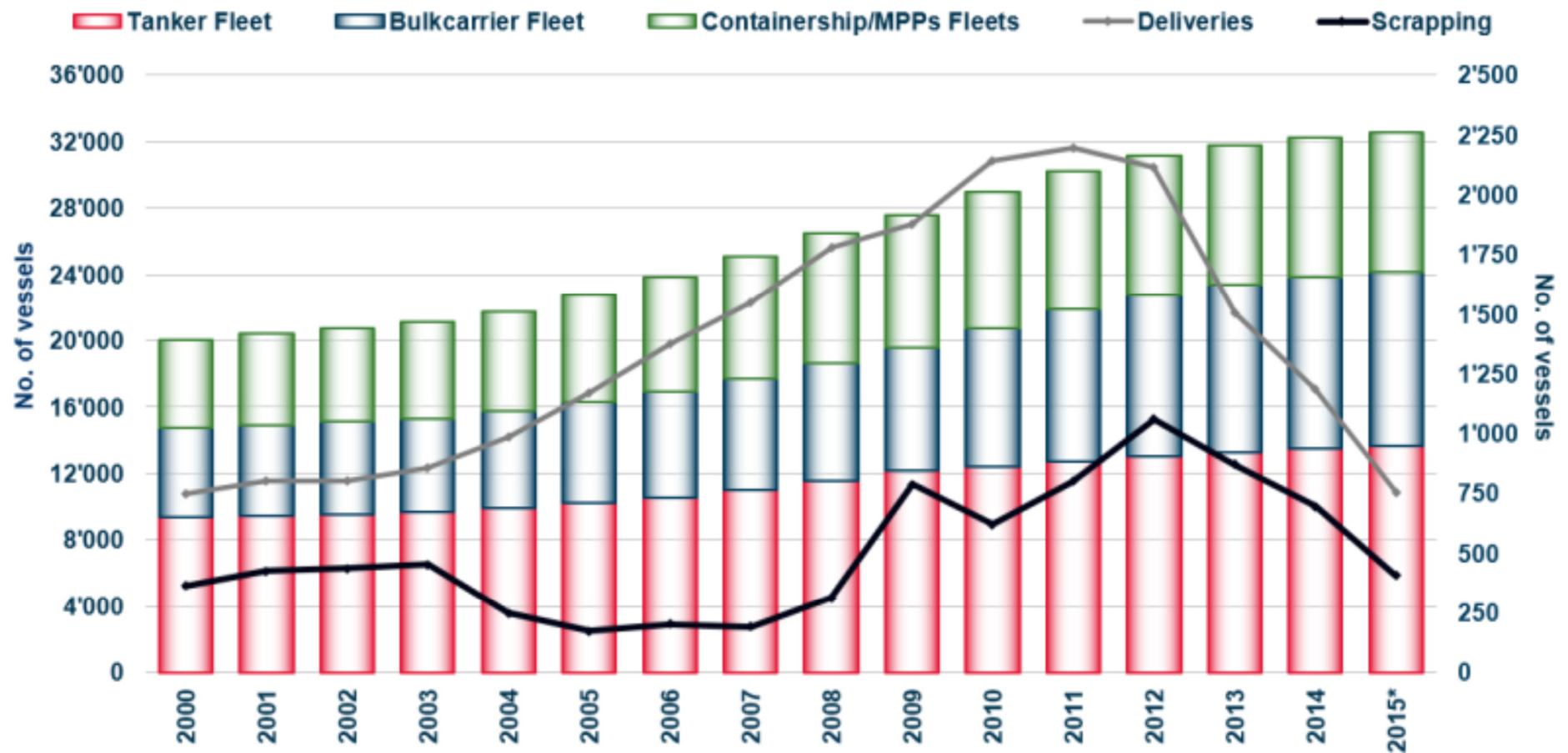
- The foundations of both safety and insurance are risk.
- Safety is accomplished when we identify and minimize (or mitigate) every hazard and risk possible.
- The insurance industry provides the financial support for those occasions where unexpected events occur.
- Both customers and the insurance industry succeed when nothing happens.

Isn't that what safety is all about?



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Tanker, Bulkcarrier, Containership and Multipurpose Fleets



Source: Clarksons Research, August 2015

Note (1): Includes all vessels in these categories above 100 GT.

Note (2): All fleet totals are on the left-hand axis and deliveries and scrapping figures are on the right hand axis. Fleet totals are as at end year; deliveries and scrapping figures are full year totals.

Note (3): 2015 = year to date.



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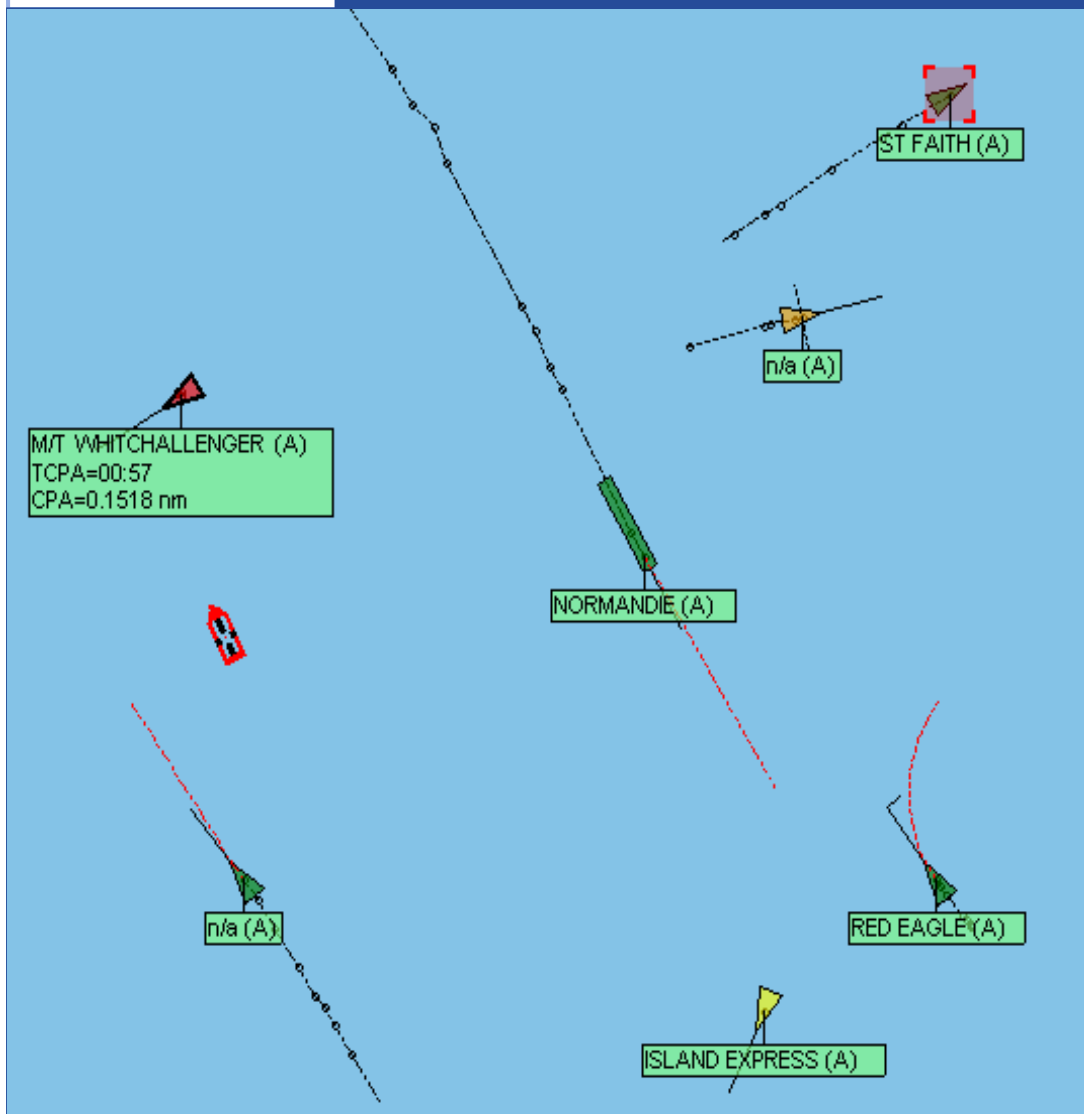
Less Space and bigger ships

- The navigable sea space for shipping is decreasing rapidly to allow for fishing, leisure, renewable energy and environmentally protected areas.
- At the same time the number and size of vessels is increasing and the number of crew members required decreasing. Is automation enough?
- It is not unusual to see large ships and small leisure crafts sharing the same space in a congested harbor



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Relaxing fishing day

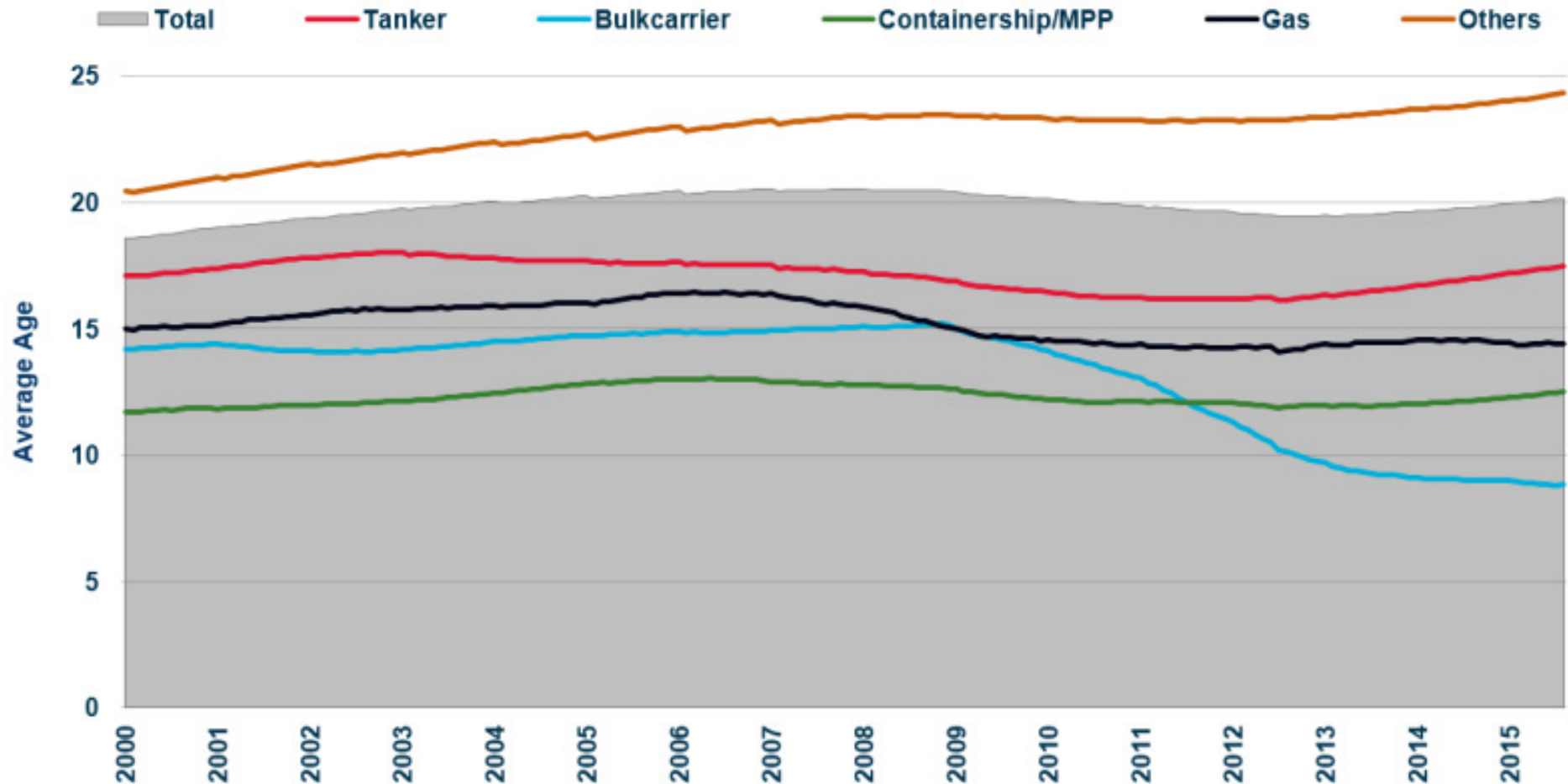
NOT THAT RELAXING!





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Average Age of the World Fleet 2000-2015



Source: Clarksons Research, August 2015

Note (1): Includes all vessels in these categories above 100 GT.

Note (2): Average age is calculated using number of vessels. Calculations are based on year and month of build.

Today's Bridge

A photograph of a modern ship's bridge. Two officers in white uniforms are seen from behind, standing at the helm. The bridge is equipped with multiple digital displays, including a large central screen showing a 3D simulation of the ship's movement on the water. The panoramic window provides a clear view of the sea and sky. The interior is dimly lit, with the primary light source being the screens and the natural light from the window.

The last decades have seen major developments in technology applied to navigation and communication systems.

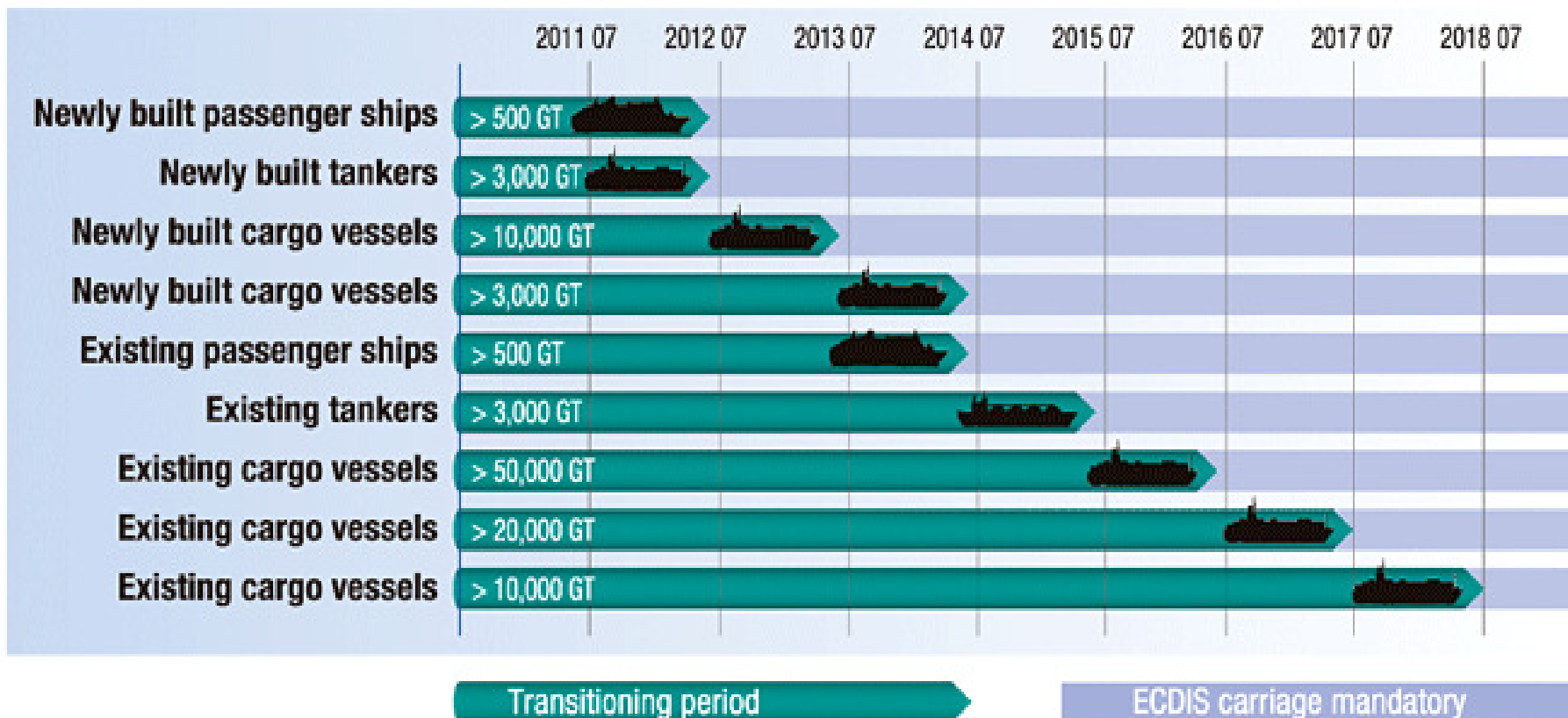


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Electronic Chart Display Information System

Implementation schedule for mandatory carriage ECDIS

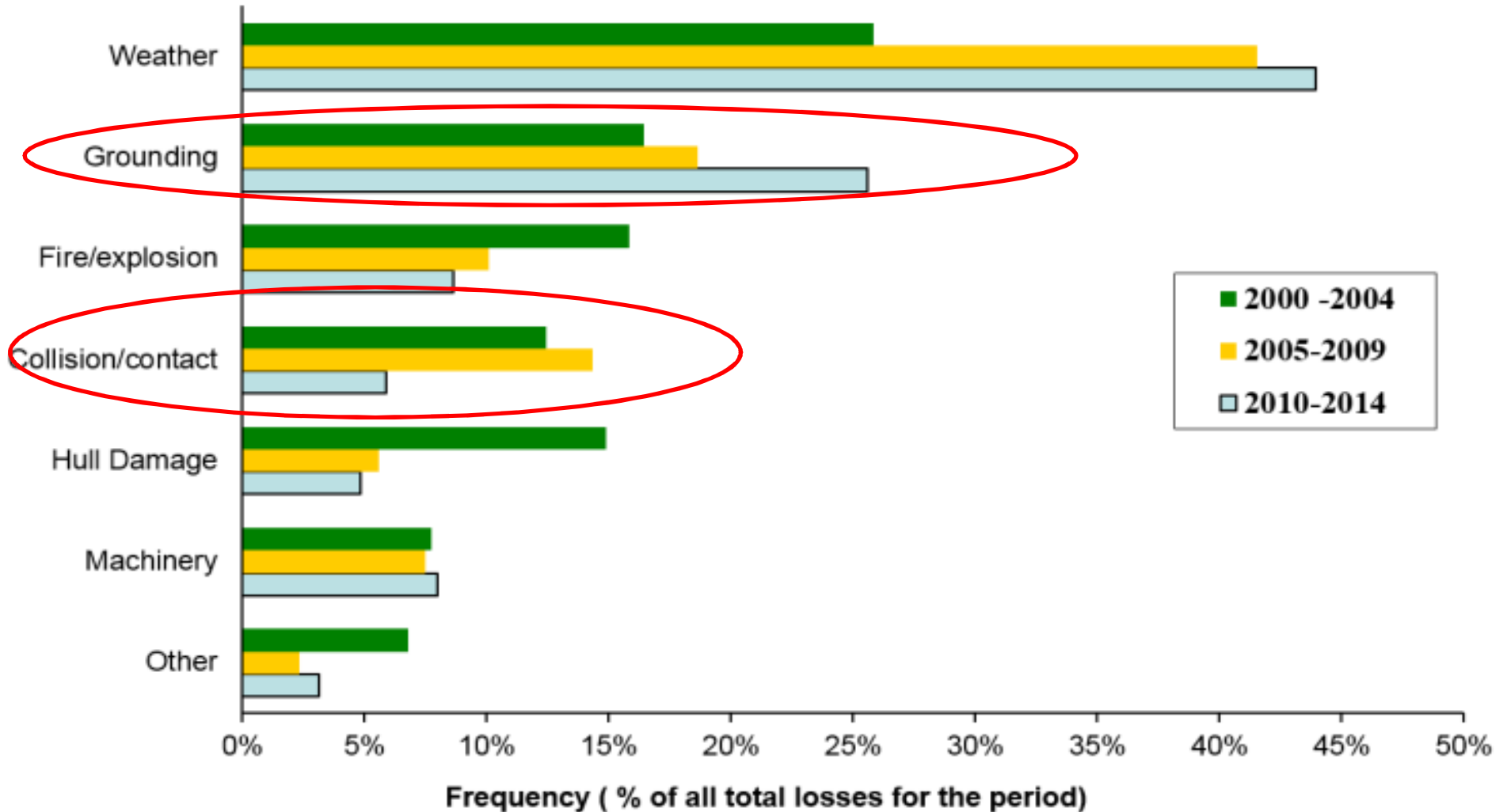
At the NAV-54 work group assembly in 2008, IMO has decided to make ECDIS mandatory for all IMO vessels >3,000 GT (passenger vessels >500 GT) with a transitioning period as shown below. The new carriage requirement is for one ECDIS with suitable back up arrangement.





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Total Losses 2000-2014 By Cause, All Vessel Type (vessels > 500 GT)

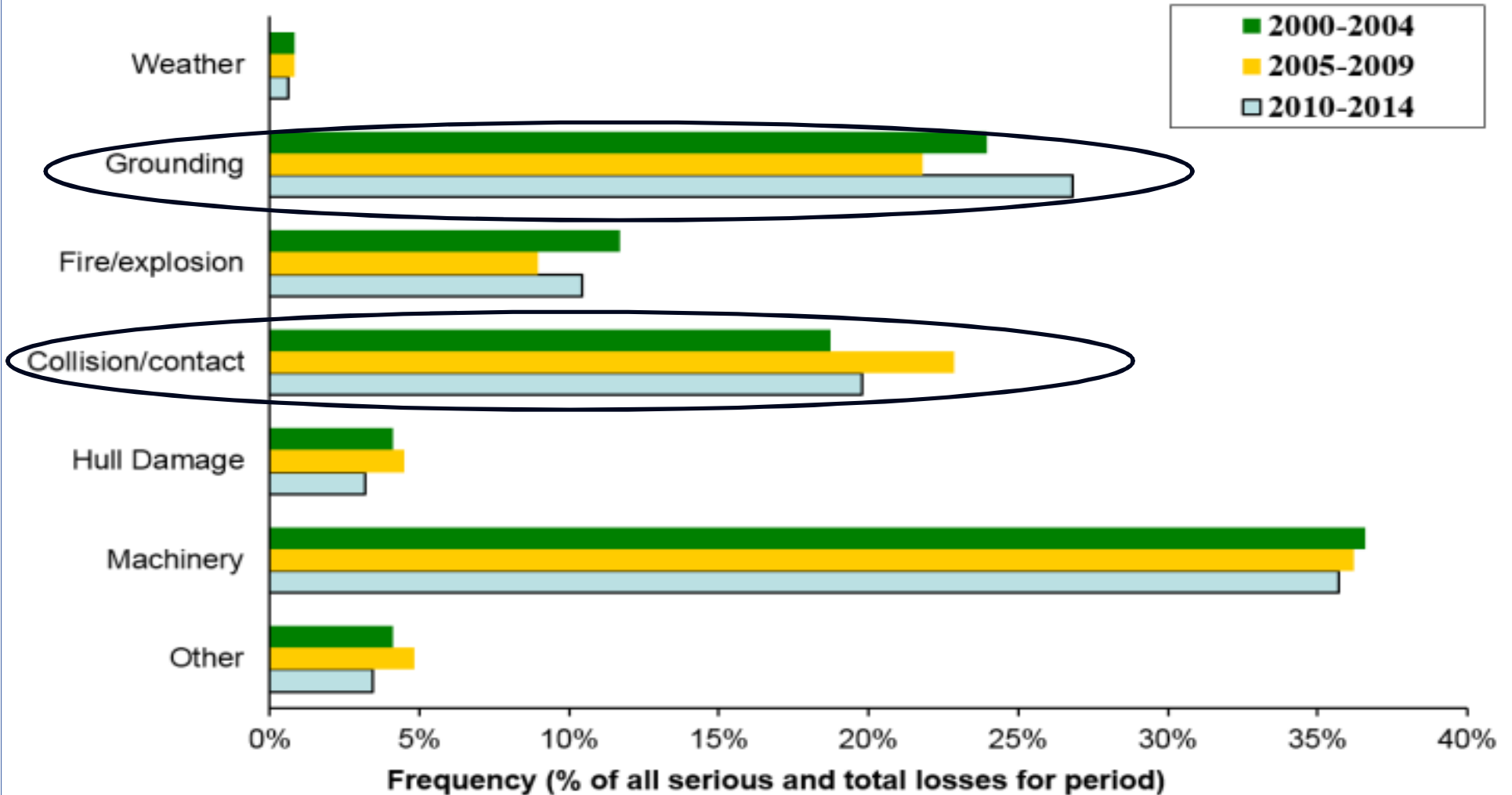


Source: LLI, total losses as reported by Lloyds List



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Serious Losses 2000-2014 By Cause, All Vessel Type (vessels > 500 GT)



Source: LLI, total losses as reported by Lloyds List



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Climbing costs



The costs of groundings, collisions and pollution cleanup/prevention are increasing every year





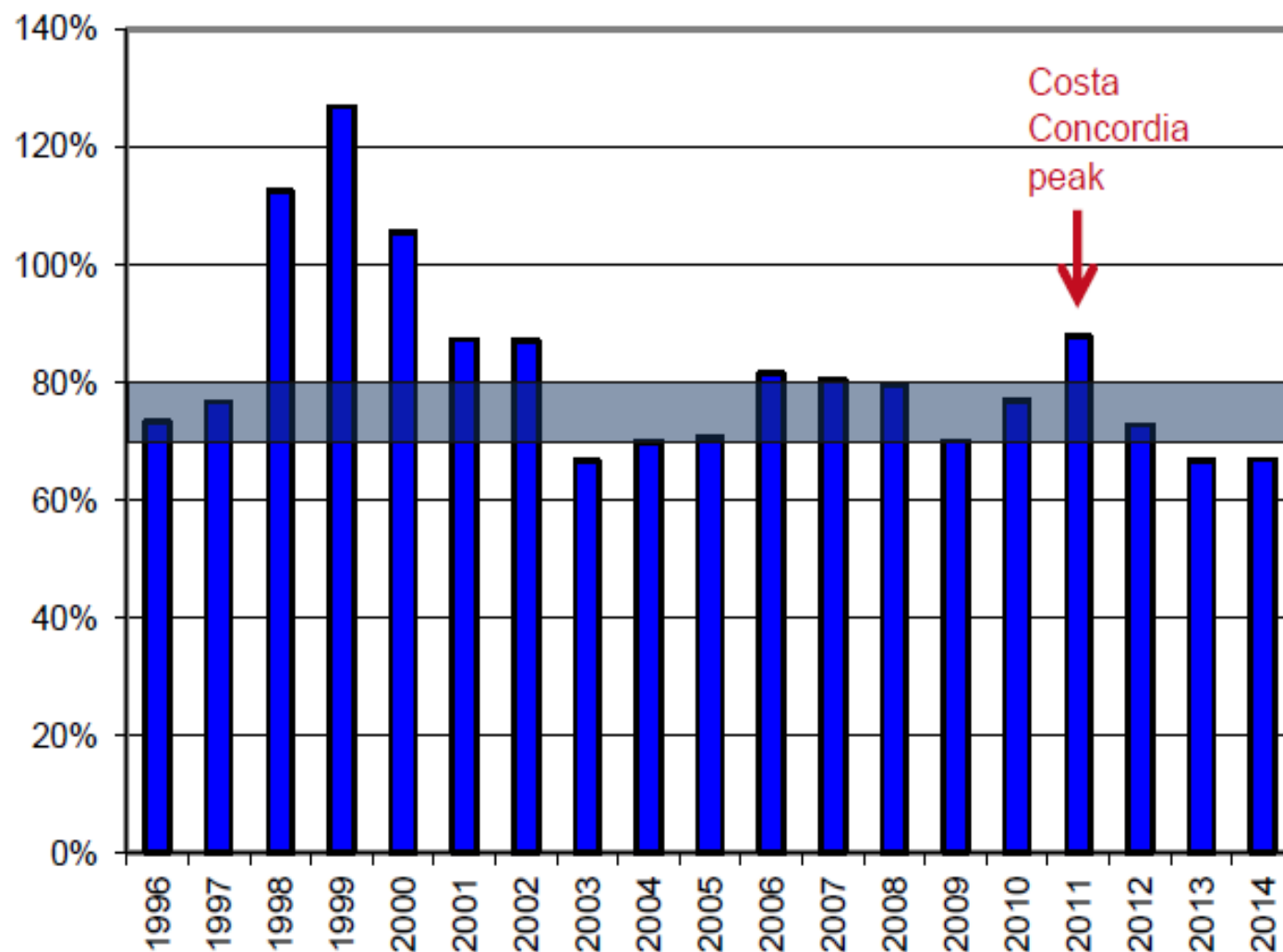
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Hull Claims Trends



HULL – ULTIMATE LOSS RATIOS*

EUROPE/USA**, UNDERWRITING YEARS 1996 TO 2014



Since 2009:
Repair cost relative stable. Volatility by major loss impact (strong until 2011).

2014: Record-low major loss impact.
Technical profit for first time in years?

2013 also improved (USD effect, when repairs not in USD?)

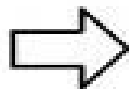
* Technical break even: gross loss ratio does not exceed 100% minus the expense ratio (acquisition cost, capital cost, management expenses)

** Data: Belgium, France, Germany, (Netherlands), Italy, Spain (until 2007), UK, USA



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What do we want to achieve as an Industry?



- Enhance berth-to-berth navigation
- Improved safety
- Improve environment protection
- Increase vessel efficiency
- Improve human resource management



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IMO's definition of e-navigation

e-navigation is the harmonised collection, integration, exchange, presentation and analysis of maritime information on-board and ashore by electronic means to enhance berth to berth navigation and related services, for safety and security at sea and protection of the marine environment

Source: MSC 85/26/Add.1 ANNEX 20

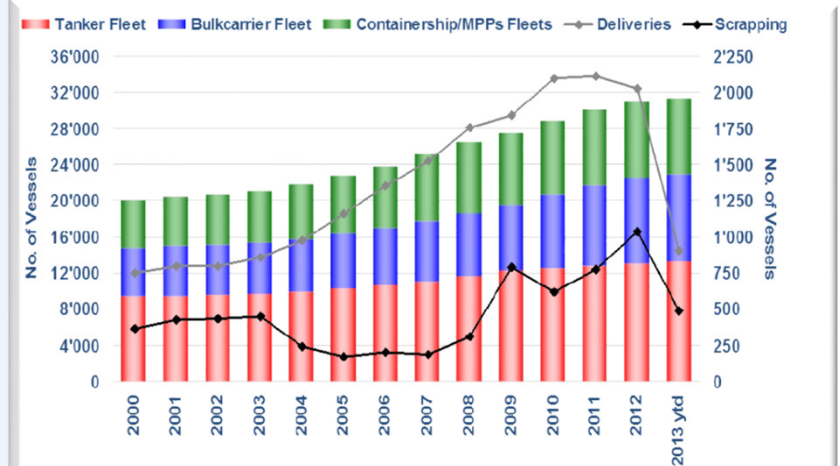




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Need for harmonization

- More than 90 percent of world merchandise trade is carried by sea
- Global seaborne trade is expected to increase by 44 percent by 2020
- Vessels of LOA > 400 Mts navigating at +25 Kt
- Less space and more ships



Source: Clarkson Research, August 2013.

Note (1): Includes all vessels in these categories above 100 GT.

Note (2): All fleet totals are on the left-hand axis and deliveries and scrapping figures are on the right hand axis. Apart from 2013 data, fleet totals are as at end year; deliveries and scrapping figures are full year totals.



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The Insurance Market concerns?

- Over Reliance on electronic means of Navigation // more time spent looking at a screen than looking out the window
- Lack of standardization onboard and ashore, incompatibility between vessel's bridges and an increased and unnecessary level of complexity
- Use of e-Navigation without proper training of all stakeholders
- GPS as the unique/main source of positioning // Cyber attacks
- Implementation on an aged fleet



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The Insurance Market concerns?

- Transitional period length and related risks
- Implementation plan
 - Regulatory framework
 - Technical requirements
 - New training requirements to be defined for mariners, including changes to existing Maritime Academies syllabus
 - Shore base personnel training standards/requirements
- Further reduction of crew size



Thank you

Capt. Jorge Pecci
EVP Global Marine
AIG

