



UNDERWRITERS AND CLASSIFICATION SOCIETIES: AN INNOVATIVE APPROACH

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AGENDA

- Some clues about history
- What is RINA today
- Innovation in Shipping
 - ✓ E-Navigation and Cyber Security
 - ✓ Additive Manufacturing
 - ✓ Crew education
 - ✓ Risk Management
- Conclusion



SOME CLUES ABOUT HISTORY

It all started from a
cup of coffee...



WHAT IS RINA TODAY



MARINE

ENERGY



**BUSINESS
ASSURANCE**

**TRANSPORT &
INFRASTRUCTURES**



**IFIs &
INVESTORS**



SERVING ALL TYPE OF INDUSTRIES



WHAT IS RINA TODAY

TIC*

CE**

Classification		Operation&Maintenance	
Certification		Consulting Engineering	
Testing		Project management	
Inspection		Special studies	
Training		Design	

* Testing, Inspection, Certification

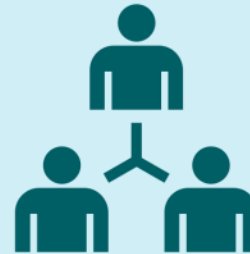
** Consulting Engineering



WHAT IS RINA TODAY



540 Mil.
2016 Est. Turnover



4000
Colleagues



170+
Offices



65+
Countries



WHAT IS THE CHALLENGE

IUMI



*Innovation,
New opportunities,
New needs.*



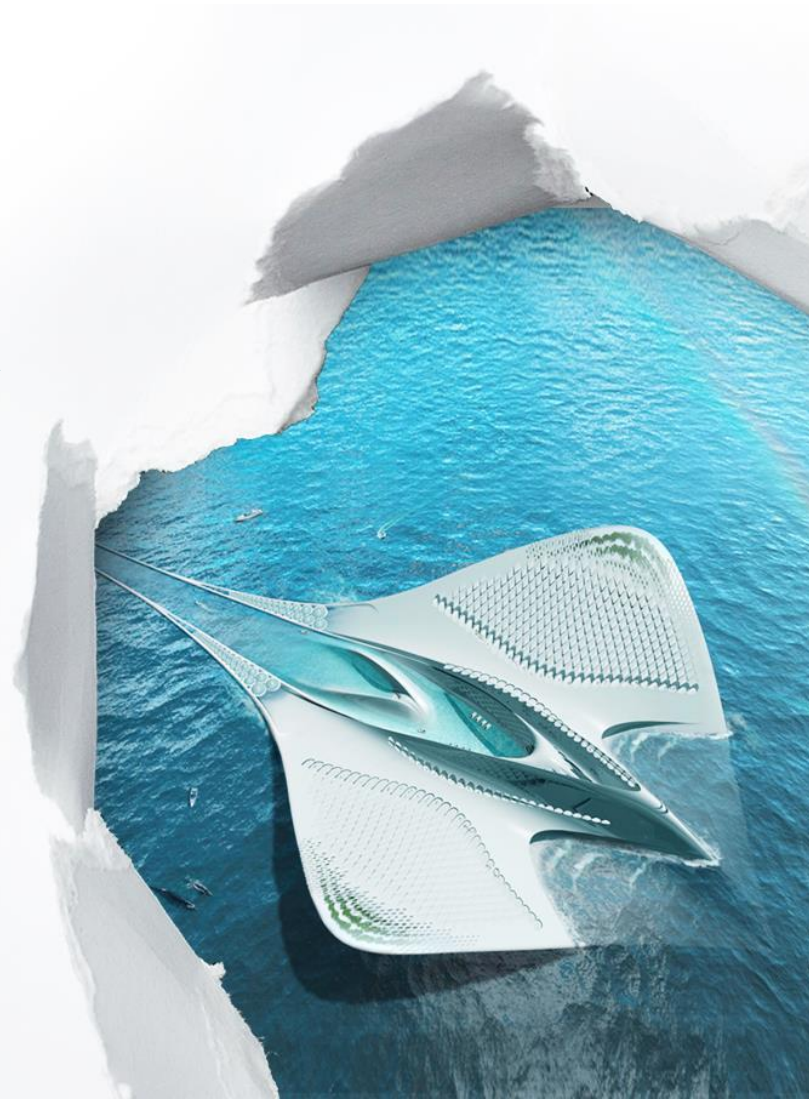
E-NAVIGATION AND CYBER SECURITY

E-navigation today

E-navigation improves:

- ✓ safety
- ✓ environmental sustainability
- ✓ operational efficiency in shipping

2035 → autonomous
and **unmanned ocean-**
going ships



E-NAVIGATION AND CYBER SECURITY

E-navigation today



E-NAVIGATION AND CYBER SECURITY

InfoSHIP EGO System

the software powered by RINA and IB

- ✓ 130+ Ships
- ✓ An order book of 100+ ships



InfoSHIP[®]
EGO • Energy Governance
Powered by IB



E-navigation means also risks

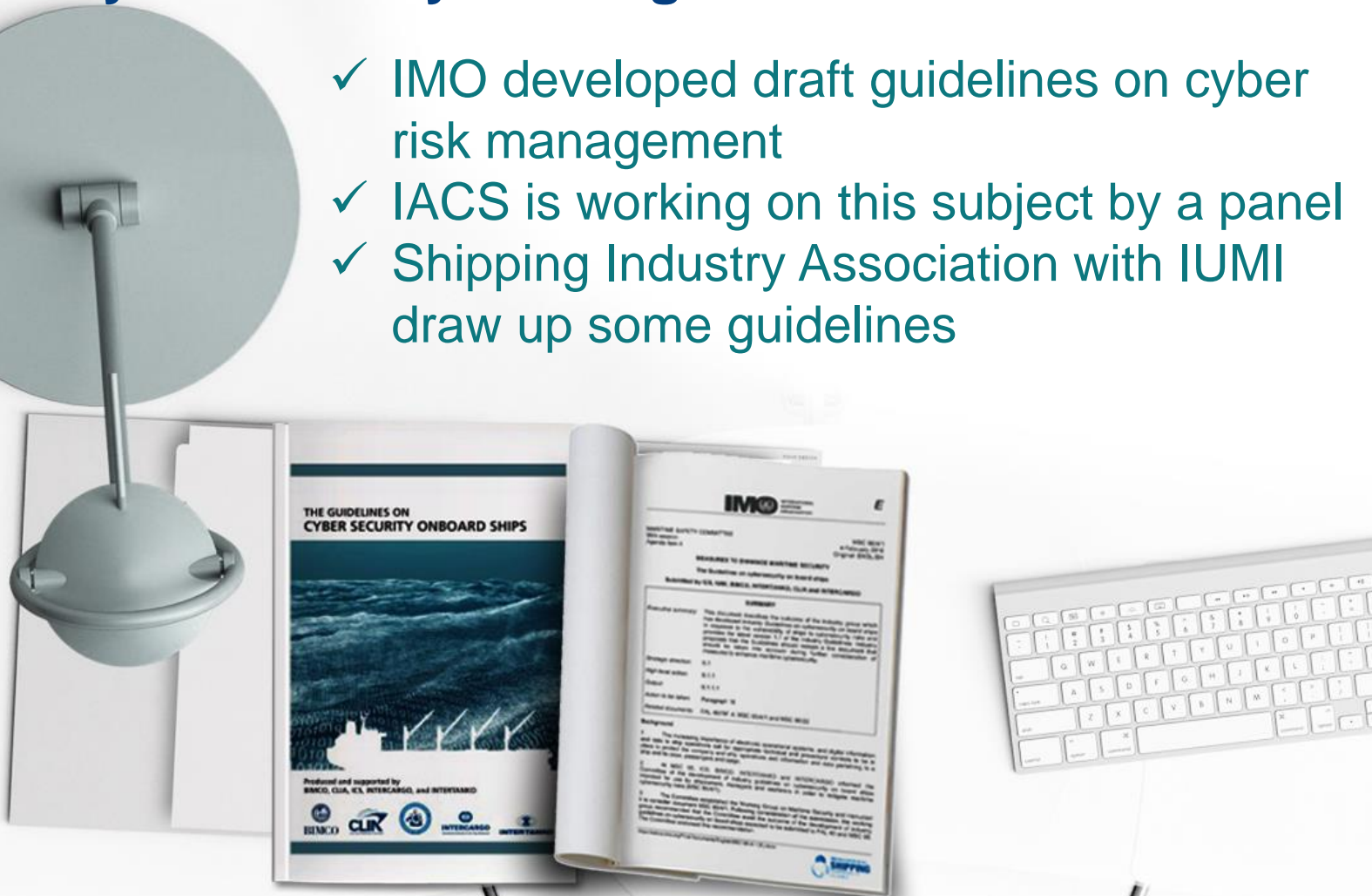
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E-NAVIGATION AND CYBER SECURITY

Cyber Security is being monitored

- ✓ IMO developed draft guidelines on cyber risk management
- ✓ IACS is working on this subject by a panel
- ✓ Shipping Industry Association with IUMI draw up some guidelines



ADDITIVE MANUFACTURING

Additive Manufacturing Forecast

Rapid market growth

Additive manufacturing market worldwide, development and forecast (in billions of euros) ²⁾



Sector Overview: Ready for Additive Manufacturing?



Production readiness level

Capable of full-scale production

Initial systems already manufactured

Concept phase and lab tests



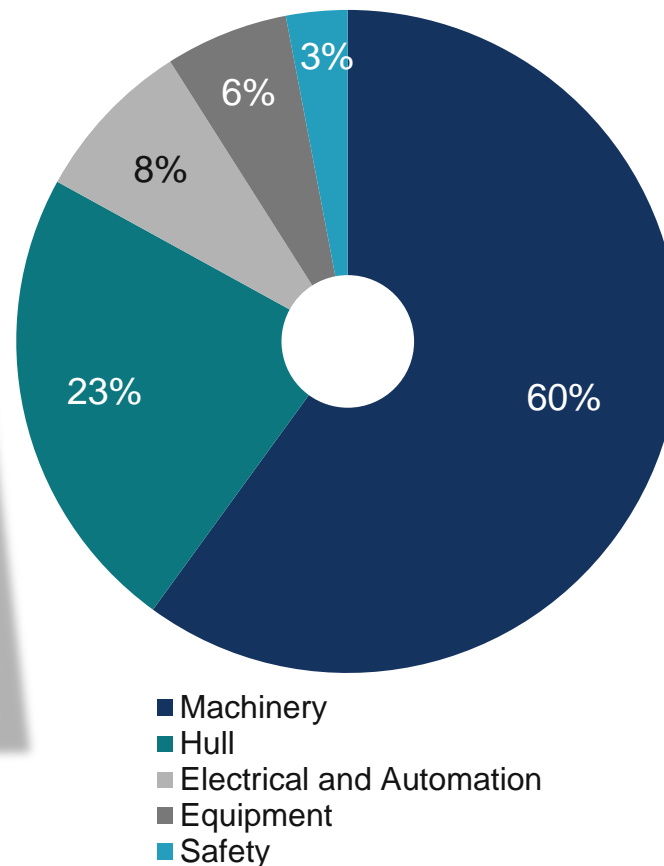
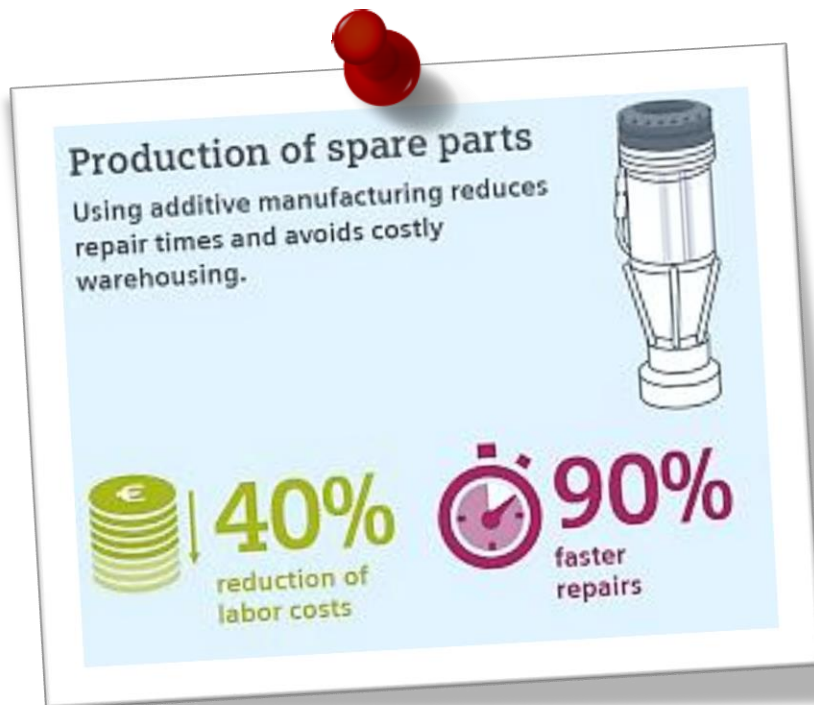
ADDITIVE MANUFACTURING

Latest news in Shipping Industry



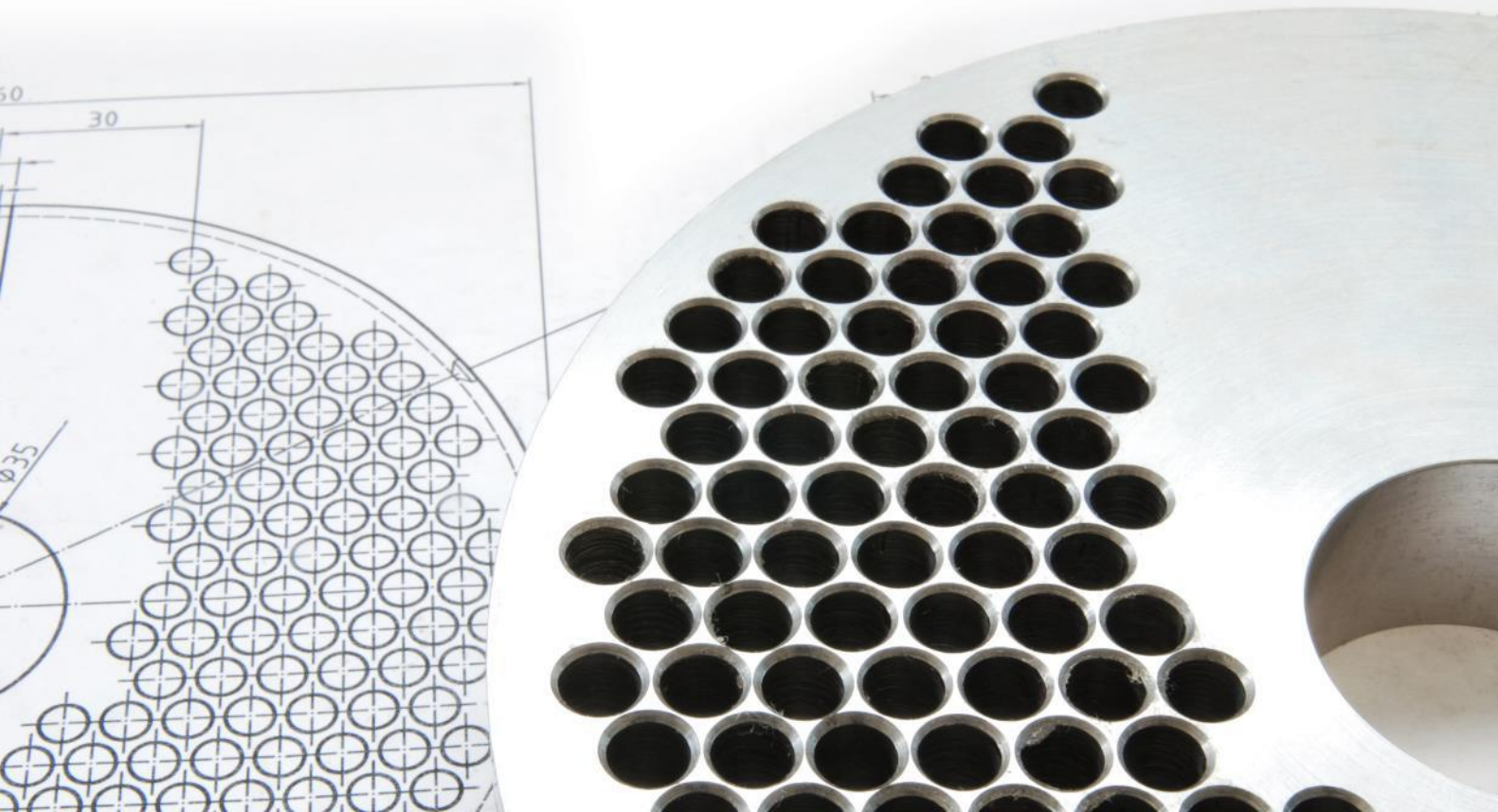
ADDITIVE MANUFACTURING

Additive Manufacturing and ships' Spare Parts



ADDITIVE MANUFACTURING

Our competence



CREW EDUCATION

Human factors and Simulators

- ✓ Human error is associated with up to 90% of maritime accidents



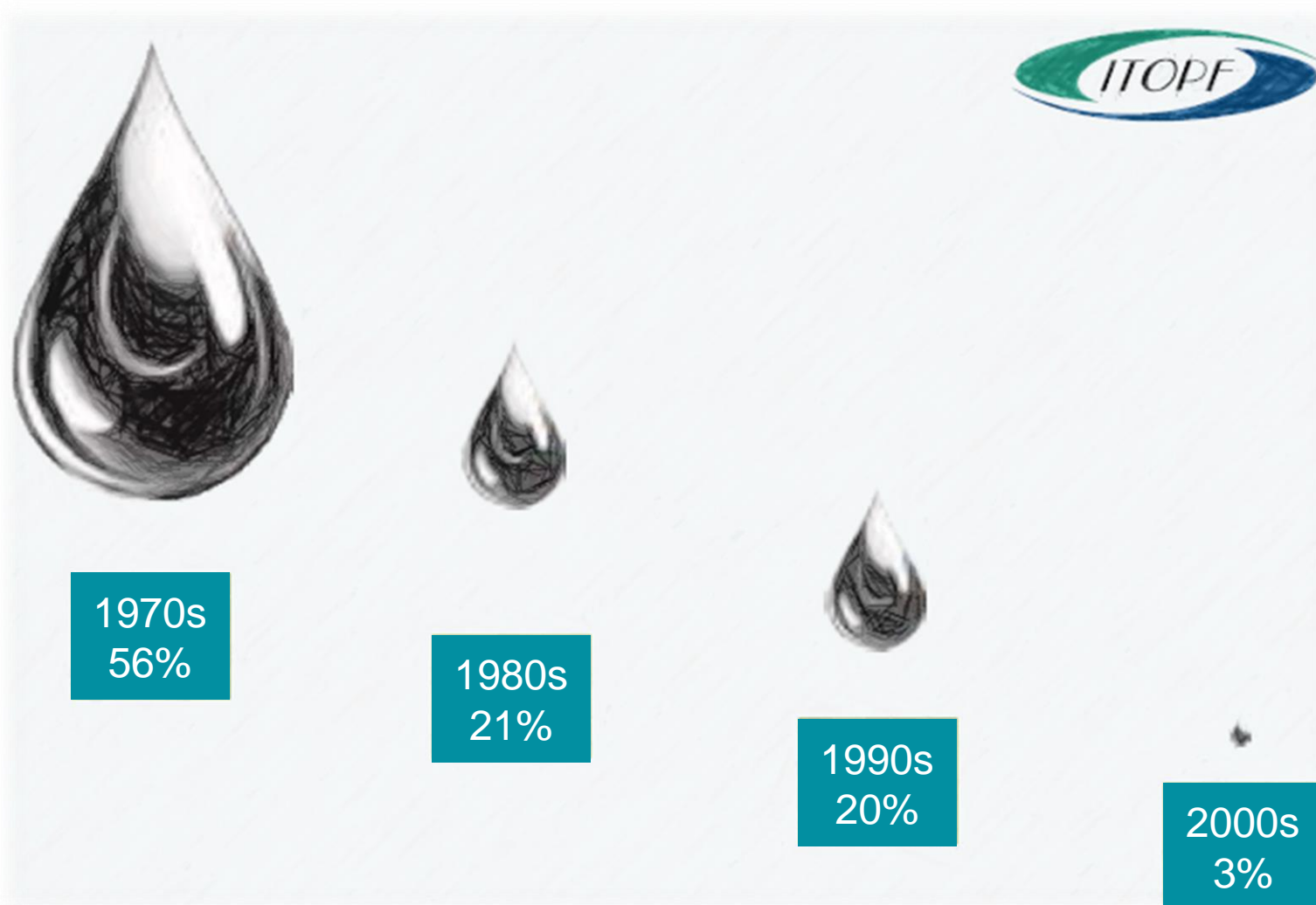
CREW EDUCATION

RINA Academy and Simulators



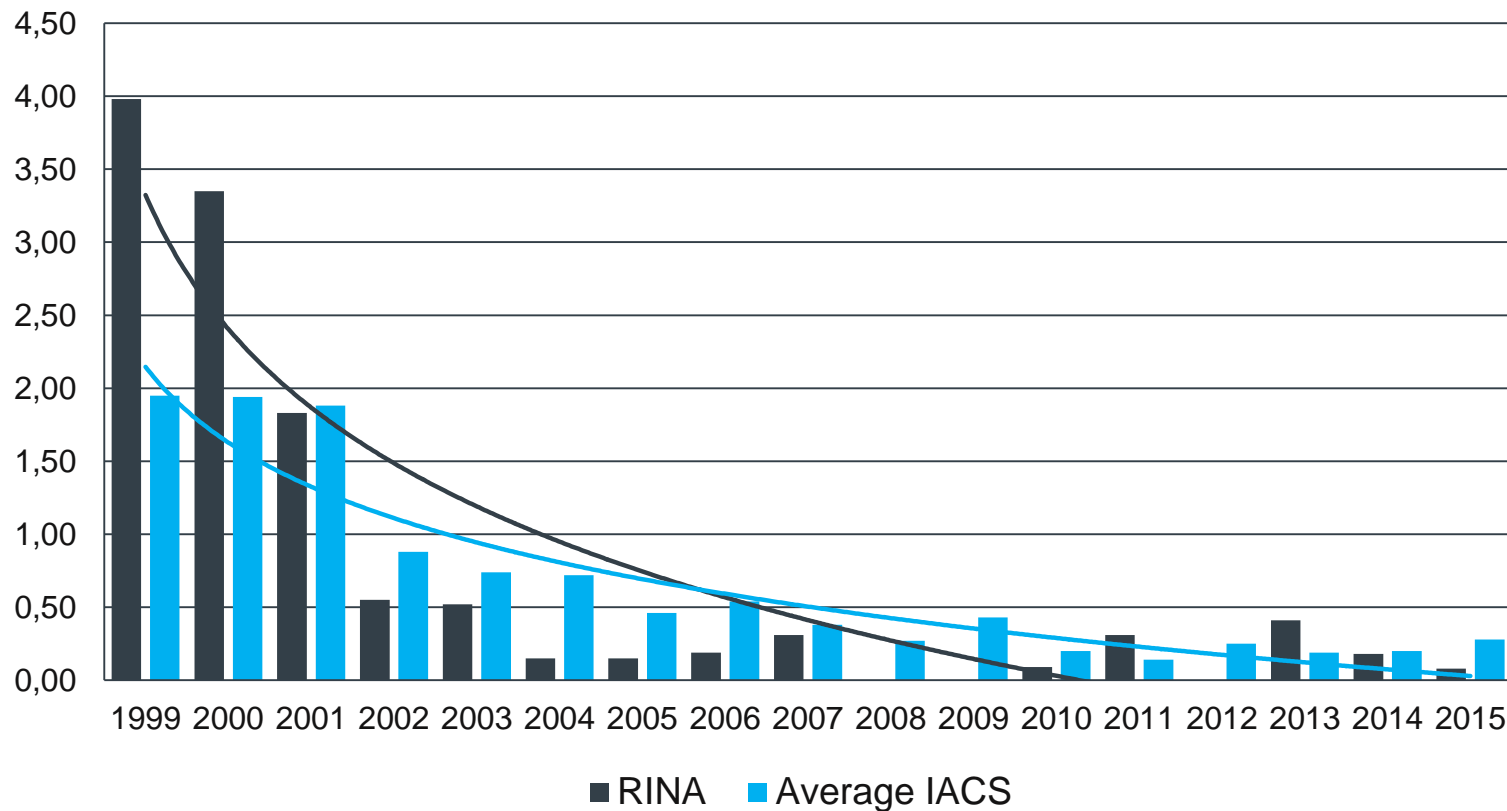
RISK MANAGEMENT

World Fleet Performance



RISK MANAGEMENT

Zero Detention



RISK MANAGEMENT

Risk Analysis and Design





“Without change there is no
innovation, creativity, or incentive for
improvement.

- *William Pollard*

