

# EU RO MR Group Workshop Hamburg, 5 September 2018

## EU RO MR Group – Status and Outlook Ulrich Foerster – SC Member – Lloyd's Register







# Regulation 391/2009 on Mutual Recognition of Class Certificates, Article 10.1

Presentation of EU RO MR Group  
EU RO MR Workshop  
5<sup>th</sup> September 2018, Hamburg

Ulrich Förster, LR SC Member



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# EURO MR - introduction and recap on principles

*“Talking about the principles  
under which the Group has  
developed the MR process”*



Source: Internet



# Mutual Recognition Art 10(1), Reg 391 – main principles

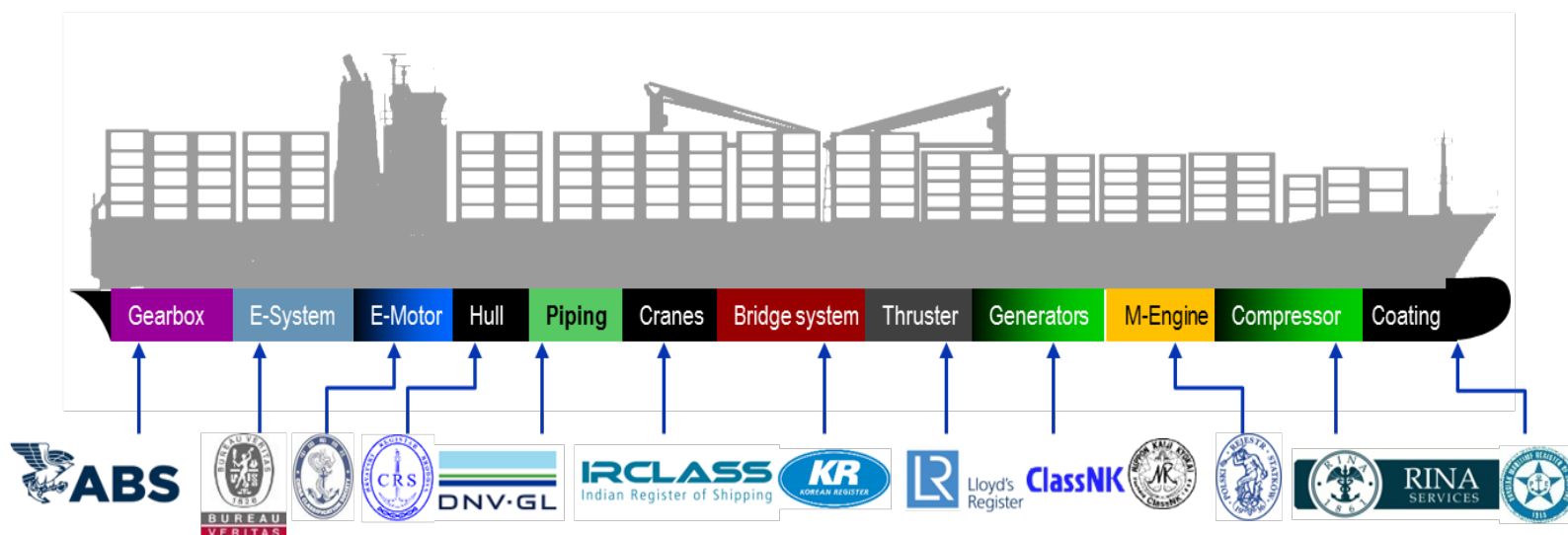
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Let's recall the main principles drawn up by the regulation

- The regulatory regime concerning ship safety and marine pollution prevention are contained within:
  - Rules and Regulations of individual Classification Societies
  - IMO International Conventions and Regulations applied by Classification Societies
- Article 10.1 of Regulation (EC) 391/2009 states:
  - “...Recognised organisations shall, **in appropriate cases, agree on the technical and procedural conditions** under which they will mutually recognise the class certificates for materials, equipment and components based on equivalent standards, **taking the most demanding and rigorous standards as the reference...**  
*Where mutual recognition cannot be agreed upon for **serious safety reasons**, recognised organisations shall clearly **state the reasons therefor...**”*

# Mutual Recognition Art 10(1), Reg 391 – What does it mean?

- Mutual Recognition is not the same as MED and this should not be confused with it, i.e. MED is focussed on statutory certification of marine equipment while the MR process is directed to class issued certificates. Therefore, these are two separate regulations with their own governance and execution procedures
- MR could potentially (in the extreme) result in a complete vessel being covered...e.g. as illustrated below



# Art 10(1), Reg 391 – Principles to recognise and apply

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## Our Group are compliant under MR...

- The overall aim of the European Union, through application of Regulation (EC) 391/2009, is to ‘ensure cooperation and exchange of knowledge between ROs and to **promote highest safety**’
- **EU ROs are obliged to accept MR Type Approval certificates issued by any of the ROs** for all the products found eligible under the MR programme, when the vessel is flagged by an administration of an EU Member State
- **Non-EU flagged vessels, however, will need to be directed by the requirements of the individual administration**
- All ROs acting worldwide which have gained EU RO status are committed to developing and implementing the Mutual Recognition Scheme to comply with Regulation (EC) 391/2009.



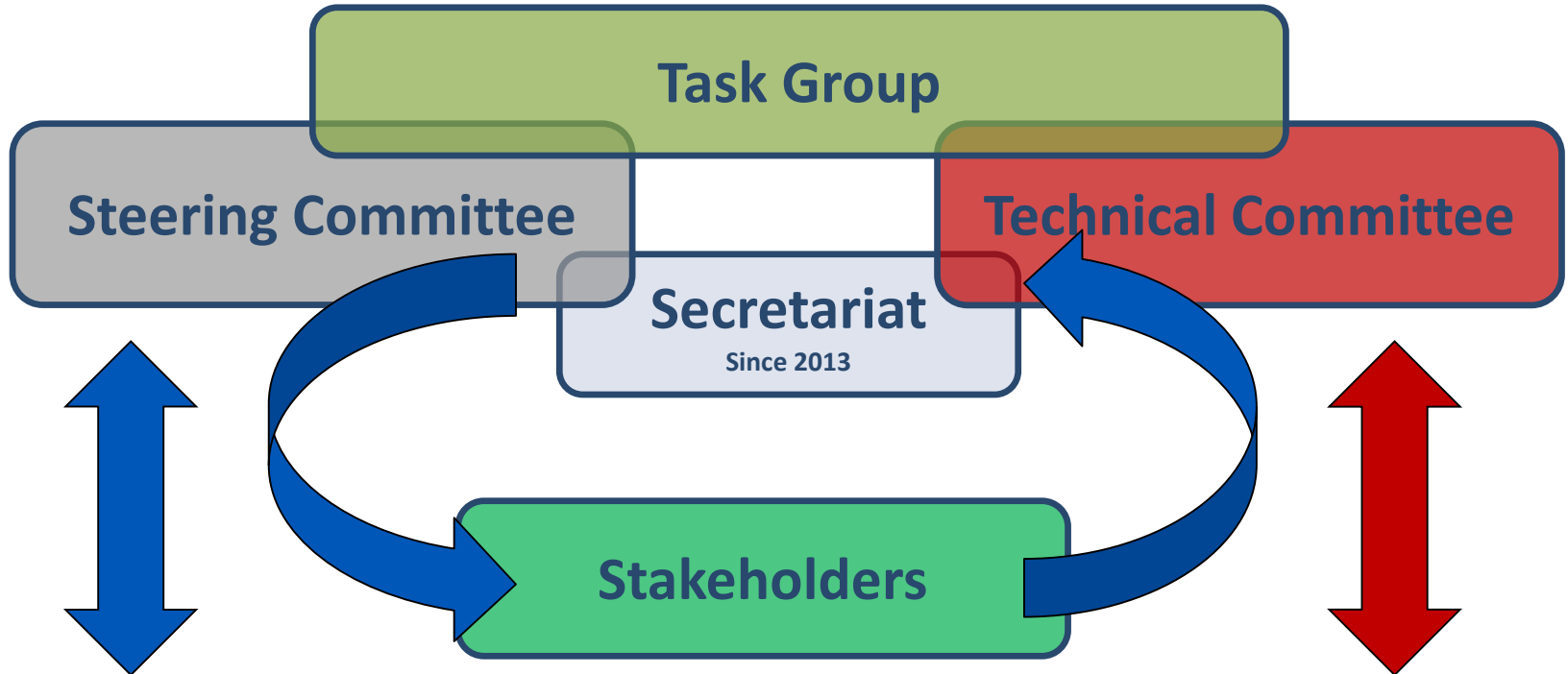
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# EU RO Group structure and governance

*“Overview about the Group’s  
structure and activities ”*



# Governance of the EU RO MR Group



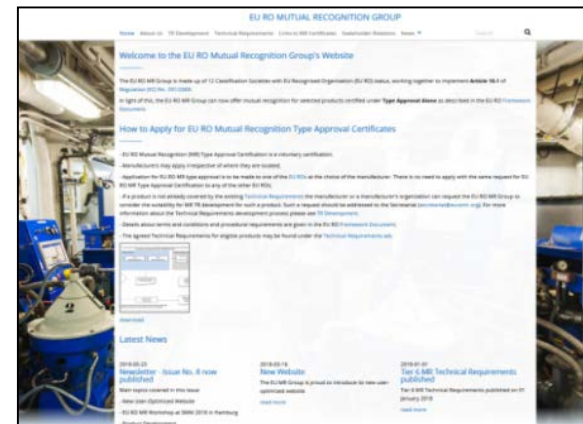
Decisions and guidance within EU RO MR Program, overall responsible and ensuring compliance

Recommendations for Steering Committee regarding products eligible for MR, development, adoption and maintenance of MR Technical requirements

# Since the last report to the Commission in 2015, which followed the 2014 workshop the EU RO MR Group has...

- Further developed new procedures and relevant documentation to ensure consistency in the implementation and maintenance of technical requirements [**R**quest for **C**larification [RfC], **C**hange request [CR], Alert process, Maintenance procedure, **P**roduct **C**onsideration **P**rocess [PCP]
- Renewed and improved our own web page in 2018 to become more user – friendly and providing more comprehensive information to industry covering procedural and technical details of the entire MR process

<https://www.euomr.org>



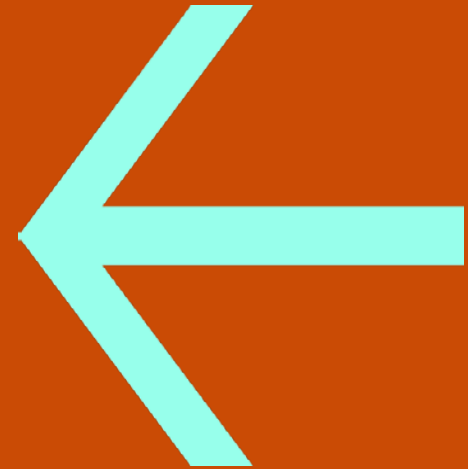
- Initiated further work on simplifying the MR process required technical consultation and the transition processes
- Reviewed the safety criticality assessment methodology to consider the received feedback by industry and stakeholder organisations.



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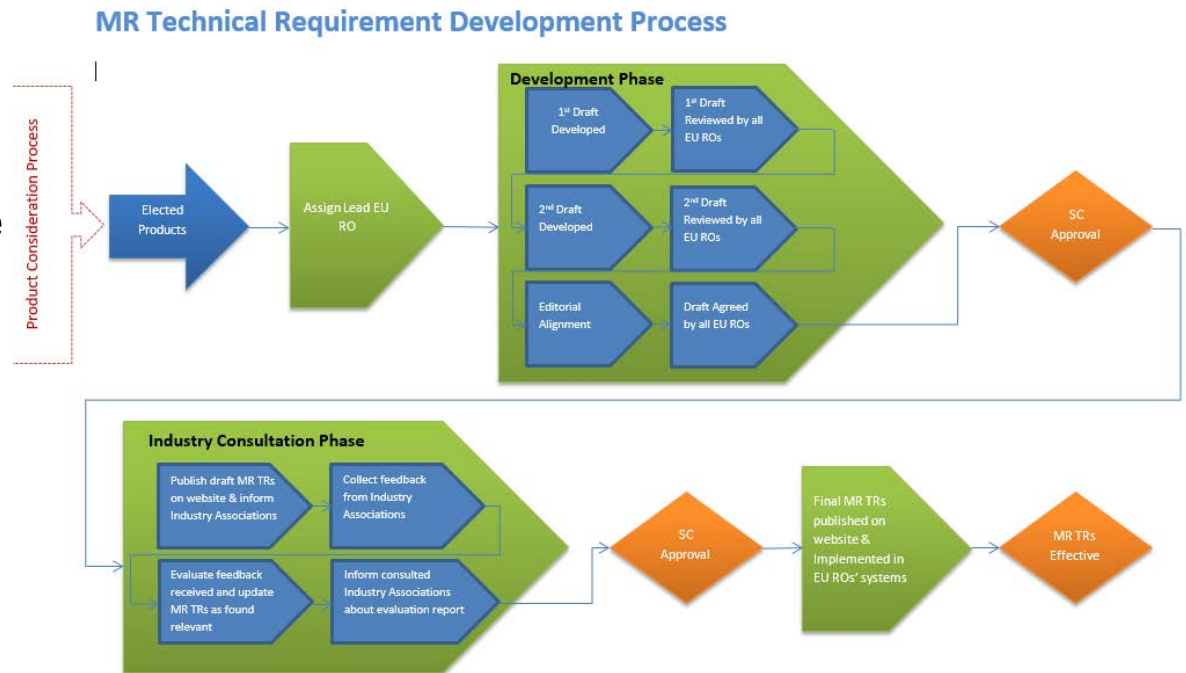
# Product development process and safety assessment

*Tier 7 developments and  
supporting tools / procedure  
under MR*



# Update on MR Technical Requirements development and industry consultation process

- Any manufacturer may, at any time, propose new products for MR
- A step by step process has been established to enable effective consultation with industry
- There are procedures and tools/forms implemented to enable Industry to direct communicate with the Group on technical and procedural matters



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# Status on MR certification

*Talking about how the Group has achieved and maintains compliance with the regulation*

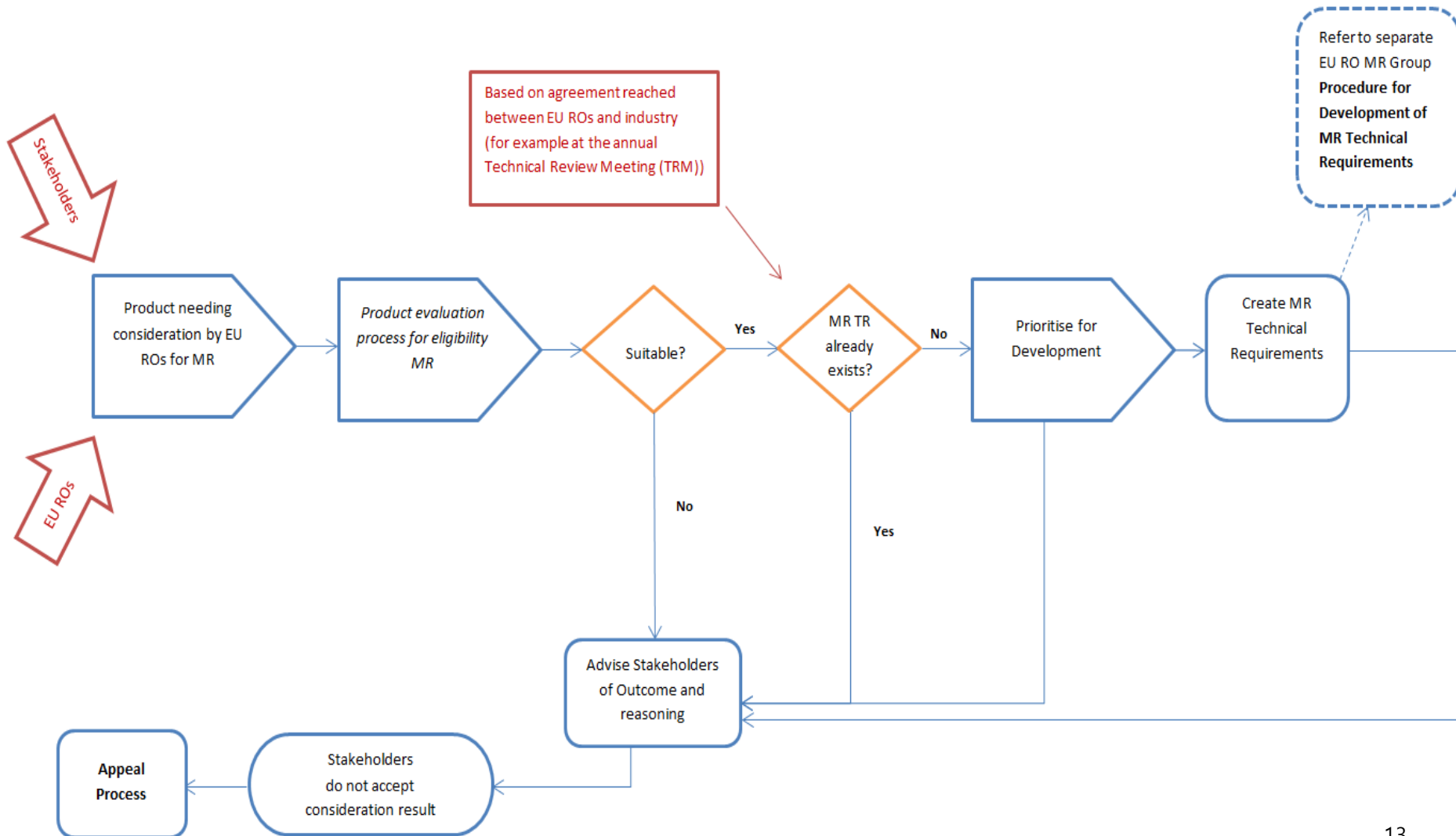


Source: Internet



# What have we done since the last report has been issued?

## Brief status report – MR Process



# Status of Mutual Recognised TA Certificates

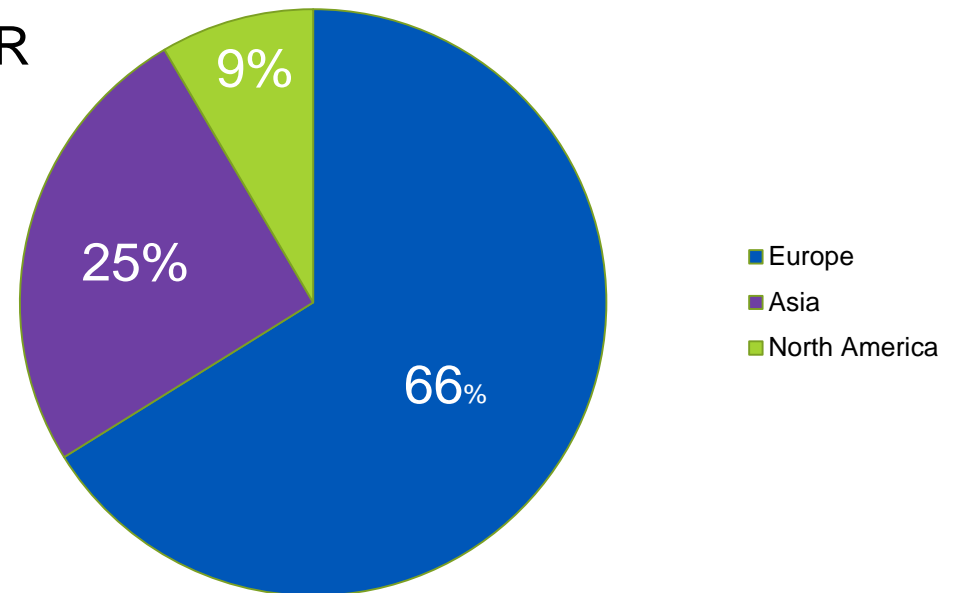
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Some statistics as per August 2018

Through development and application of transparent procedures and processes, 130 MR Type Approval Certificates have been issued (as of August 2018)

This has seen global coverage

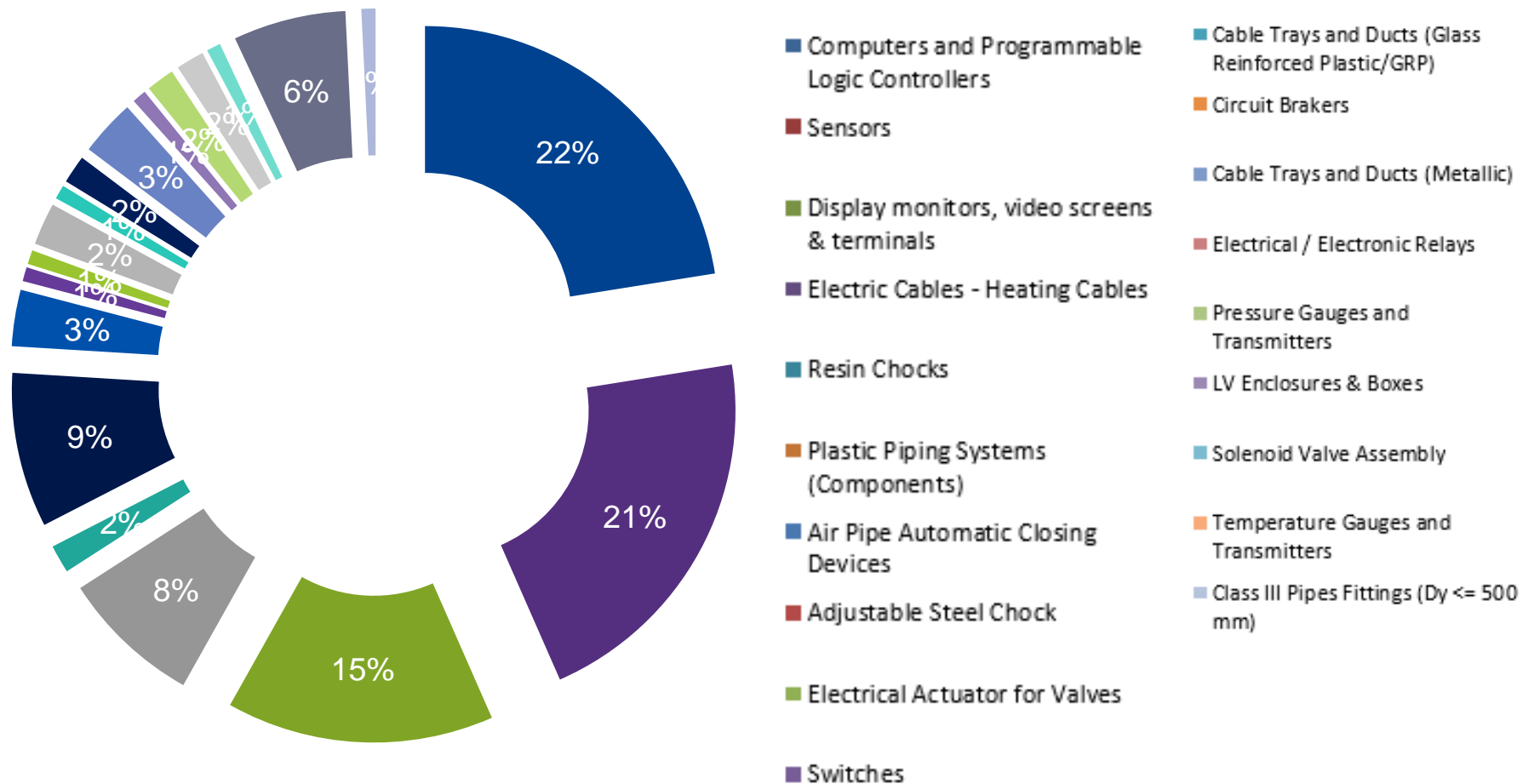
**% of MR TACs by Region**



# Status of Mutual Recognised TA Certificates

## Status August 2018

% of MR TACs Issued by Product



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# MR Group's view on MR

*Aspects to consider...*



# Continuing work on MR it is to consider that...

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- Evaluating the works capabilities and harmonisation of technical standards alone without considering the application case and safety criticality of equipment is not enough to ensure the holistic approach of our safety concept
- A ship safety concept can only be ensured if intervention in each stage of the classification cycle is applied, i.e. if carried out by the RO classing the vessel as it requires special system knowledge due to tendency of increased integration of safety critical equipment
- In the light of the above and to achieve compliance with the Regulation taking 'safety as the first priority', it is the EU ROs view that only non-ship specific products are to be considered as potential MR products
- It is the EU ROs position that the MR scheme as it stands should further focus on the development of technical requirements to a mutually agreed scope of potential products.

# Outlook ...

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## The EU RO Group will

- continue to further streamline the MR processes allowing wider industry to access
- improve the awareness of marine supply industry by participating in appropriate stakeholder meetings
- endeavour to work closer with global organisations including marine equipment, shipping, shipbuilding and insurance related associations
- organise workshops/meetings to share views on further developments and to inform various stakeholders of latest developments
- further work on developing the product evaluation process while never compromising safety.



For further information please contact:

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EU RO MR Secretariat:

[secretariat@euromr.org](mailto:secretariat@euromr.org)

<https://www.euromr.org>

Thank you!



# EU RO MR Group Workshop

## Thank you for your kind attention!

Hamburg, 5 September 2018



# EU RO MR Group Workshop Stakeholder Presentations

Hamburg, 5 September 2018



# EU RO MR Group Workshop

Christophe Tytgat - SEA Europe





**EU RO Workshop – SMM**  
**Christophe Tytgat**

# SEA Europe

- Shipyards' + Maritime Equipment Association of Europe
- Civil & naval interests
- Association of national associations from EU/NO/TR
- Merger of CESA (shipyards) & **EMEC** (equipment)



# 4 Questions

- **Question 1** – *Why did Europe's marine equipment industry advocate for mutual recognition?*
- **Question 2** – *What does Article 10 para 1 of Regulation 391/2009 provide for?*
- **Question 3** – *Where are we today with Art 10 (1) and its implementation?*
- **Question 4** – *How do we move on from here?*

# Q1- Why MR for Marine Equipment?

- Marine equipment industry in Europe:
  - All types of products and services, including technical services
  - 53% of world market in marine supplies
  - World leader in sophisticated equipment / technology
  - 232,000 direct jobs / 109,000 indirect jobs
  - € 60 bn turnover / € 17 bn total export
  - Highly innovative and technology-intensive industry

# Q1- Why MR for Marine Equipment?

- Currently: No clear and harmonised set of technical rules at EU level.
- More than 1 class. certificate for same product
  - Unnecessary high costs
  - Cumbersome administrative burdens
  - Less money to invest elsewhere
- *MR of class. certificates + harmonised class. rules =*
  - *Reducing high costs and administrative burdens*
  - *Boosting competitiveness of EU marine equip. industry*

# Q1- Why MR for Marine Equipment?

- SEA Europe's Vision =

***“There should be one set of rules and certificates, meeting the highest level of safety requirements, whereby class. societies would compete on service offered to the industry”.***

## ***Q2 – What does Article 10 para 1 of Regulation 391/2009 provide for?***

- Recognised organisations shall, in appropriate cases, agree on the technical and procedural conditions under which they will mutually recognize the class certificates for materials, equipment and components based on equivalent standards, taking the most demanding and rigorous standards as the reference.
- Where mutual recognition cannot be agreed upon for serious safety reasons, Recognised Organisations shall clearly state the reasons therefore.

# ***Q3 – Where are we today with Art 10 (1) and its implementation?***

***Not far yet .... certainly not from the perspective of  
SEA Europe or its marine equipment membership***



# *Q4- How do we move on from here?*

- Option 1 – Get rid of the current system
- Option 2 – Constructive cooperation

# Shall we go for option 2?

- Better explanation and promotion of Class Safety Criticality Hierarchy to all relevant stakeholders.
- Improve assessment of and procedure for Level 3 products.
- Start dialogue on Level 4 products (unit certification)
- Proper consultation on any changes to the system (which meanwhile has already improved)

# EU RO MR Group Workshop

## Jonathan Spremulli - ICS



EU RO Mutual Recognition Workshop  
Hamburg 5 September 2018

# Article 10.1 of Regulation (EC) No. 391/2009 Shipowners Perspective



## International Chamber of Shipping

Shaping the Future of Shipping

Jonathan Spremulli CEng CMarEng MIMarEST,  
Marine Director





# Who are the key stakeholders in MR?

- Manufacturers
- EU ROs
- Anybody important missing?
- Shipowners ?
- Shipowners are the Principal Stakeholders!  
Why?



# Ship Classification and the Shipowner

- Important Fundamental Principle! ROs work on behalf of Flag Administrations applying and verifying compliance with statutory instruments. Classification Societies work on behalf of the shipowner ensuring the ship meets Class rules
- Who chooses a ship's Class?
- On what basis does the shipowner choose the Class?
- Why is the Certificate of Class, the notations and their meaning important to the Shipowner?

*+LMC - This notation will be assigned when the propelling and essential auxiliary machinery have been **constructed, installed and tested under LR's Special Survey** and in accordance with LR's Rules and Regulations for the Classification of Ships*


- *MR impacts on the fundamentals of Class and against choice of shipowners*







# Shipowners Position on Mutual Recognition of Class Certificates

- Have not objected to the level of application of MR to date i.e. limited to certain type approved equipment
  - Strongly object to MR being elevated to safety critical items that require individual survey and certification
  - Shipowners should not be forced to accept products not surveyed and certified by the ship's chosen Class Society
  - MR impacts on liability should products fail on a classed ship
- 





An aerial photograph of a large shipyard, likely a dry dock, with a massive ship under construction. The ship is positioned on a concrete slipway, and the surrounding area is filled with industrial structures, cranes, and other vessels. The sky is overcast, and the overall scene is in shades of blue and grey.

# ICS position on Mutual recognition of Class Certificates for Materials, Equipment and Components

*“The choice of classification society for the class of a ship is ultimately to be made by the shipowner and is a private arrangement covered by contract. It is therefore expected that the chosen society will conduct the required surveys and tests and issue the related certificates for equipment being fitted and materials being used in the construction of the ship upon which the ship’s Class Notations are assigned.*

*Additionally, the principle described above must not be undermined as a result of Article 10.1 of Regulation (EC) No 391/2009 requiring the Class Society chosen by the ship owner to accept installation into a ship of equipment or materials certified by another Class Society on the basis of the two Societies each having the status of EU ROs”.*





# Additional thought:

What governs which EU RO a manufacturer will choose to certify their products?

Quality of survey, cost of services, something else???





# EU RO MR Group Workshop

## Gilyong Han - INTERTANKO



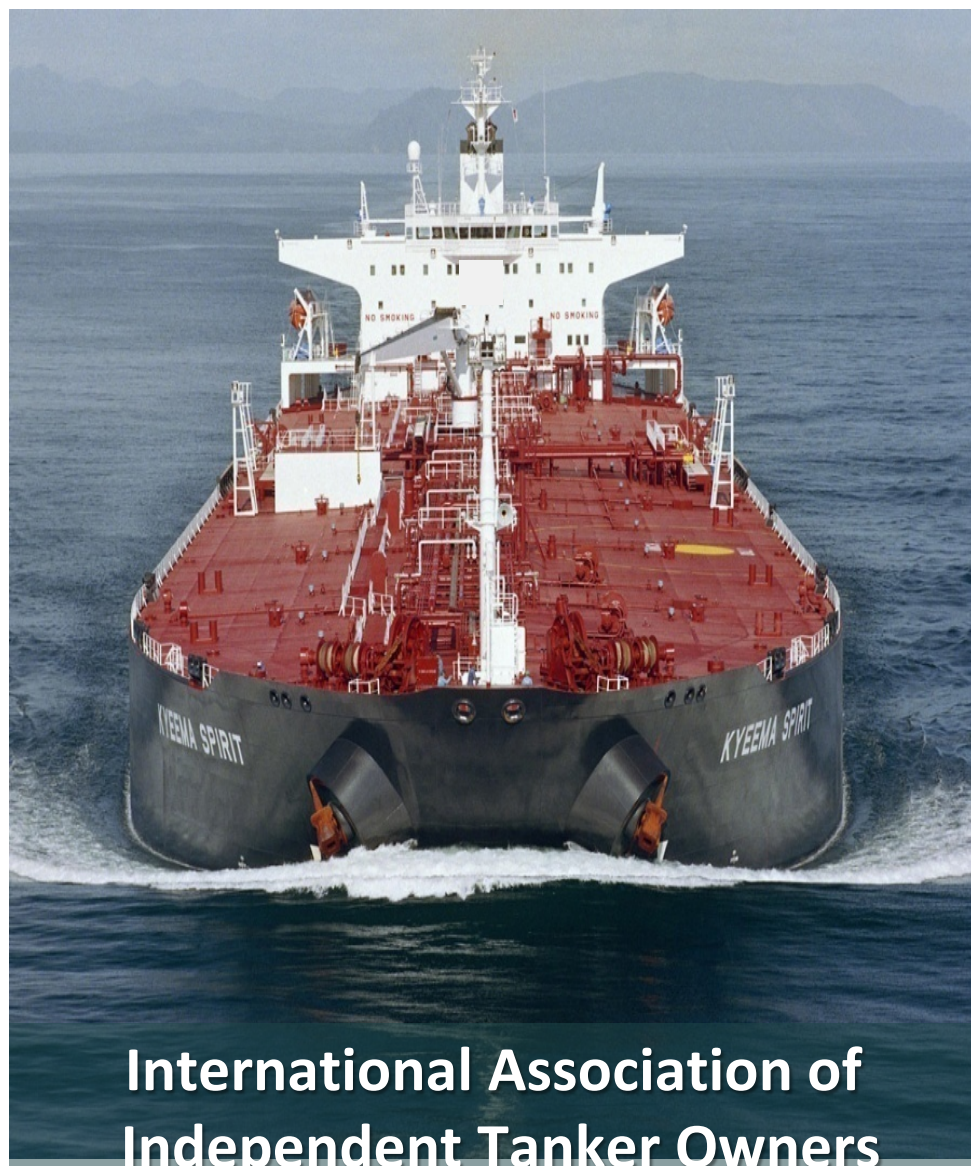


**INTERTANKO**

# EU Mutual Recognition (MR), Positive Results?

**Gilyong Han**

INTERTANKO  
5 September 2018



**International Association of  
Independent Tanker Owners**

Leading the way; making a difference



# INTERTANKO 2018

INTERTANKO

**3976**

TANKERS OWNED  
AND OPERATED

OVER

**353**

MILLION DWT

**5**

REGIONAL  
PANELS

**1**

ASSOCIATION

**14**

WORKING  
COMMITTEES

**204**

FULL  
MEMBERS

**242**

ASSOCIATE  
MEMBERS

## Members

Lead continuous improvement of tanker industry's performance

Strive to achieve the goals of:

**ZERO** fatalities

**ZERO** pollution

**ZERO** detentions

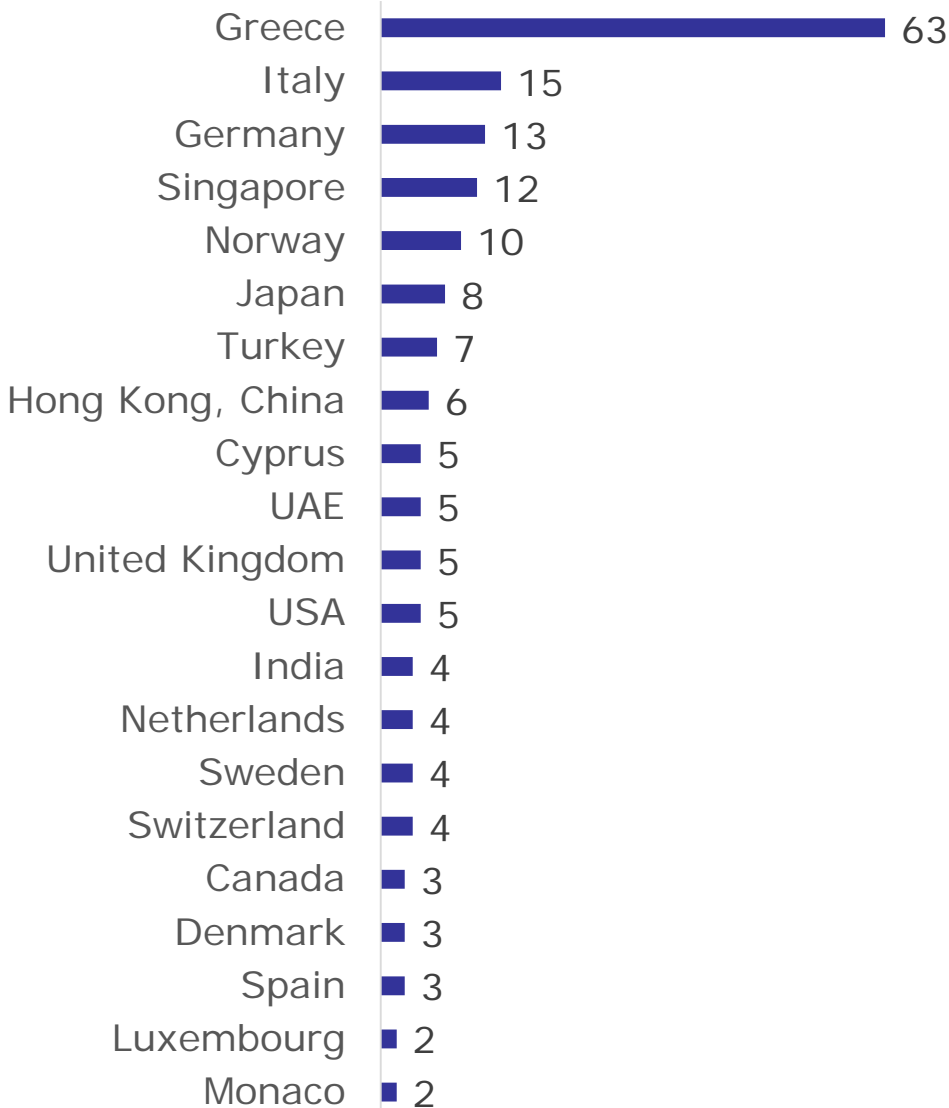
Deliver highest quality services to meet stakeholders' expectations

Promote availability and use of personnel with best marine skills and competencies

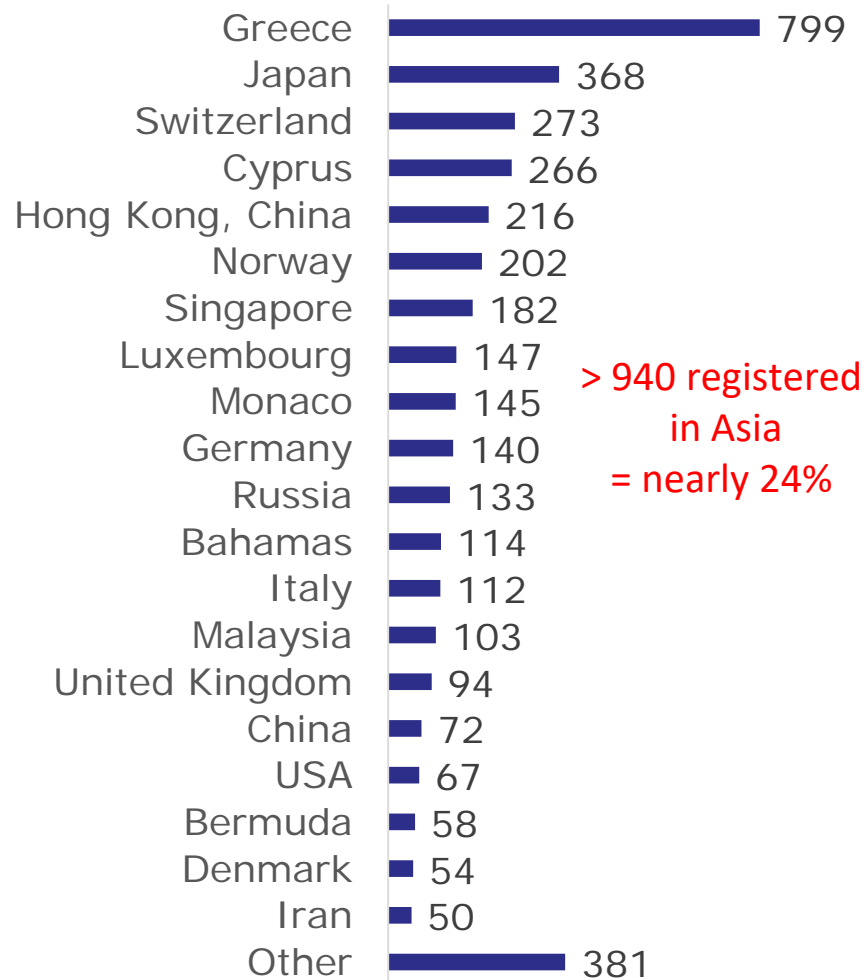


# 2018 Membership

## 204 Tanker Owner Members



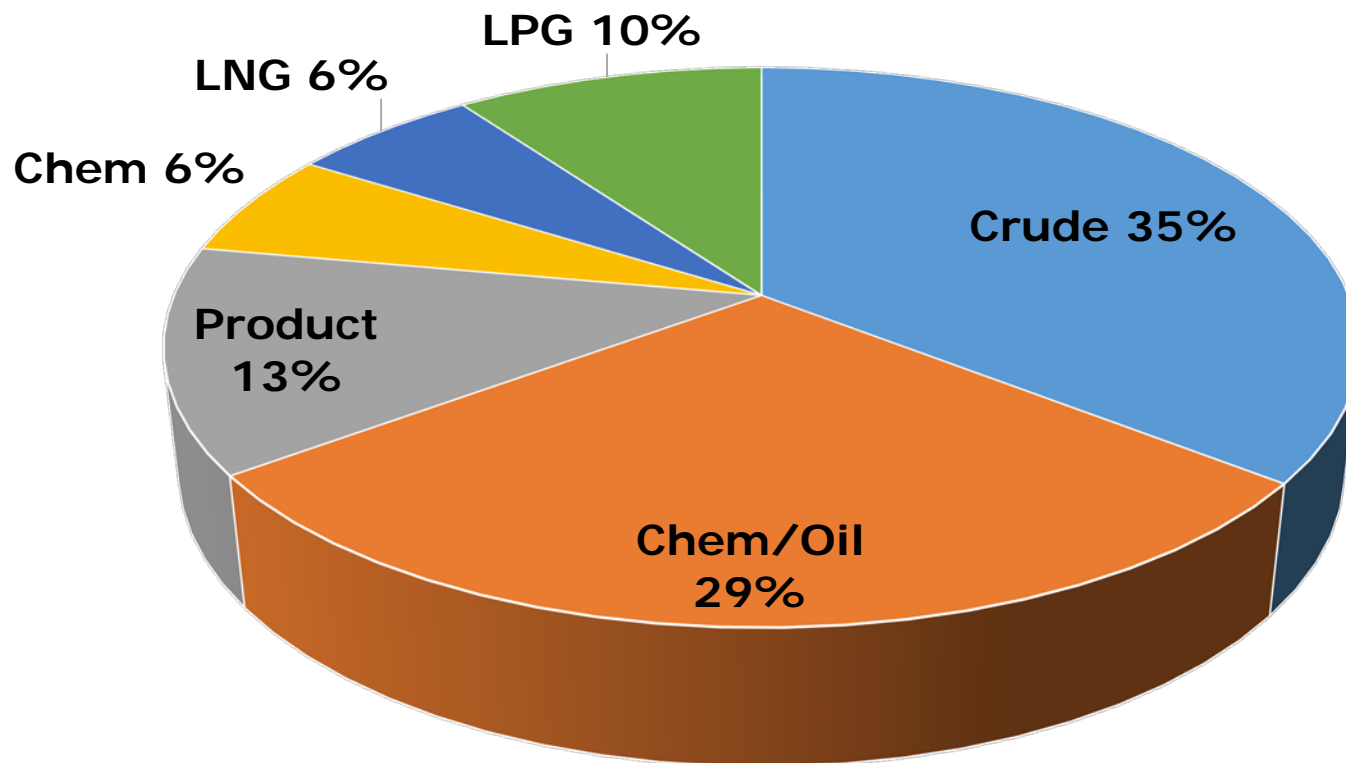
## Registered Tanker Fleet





# 2018 Member Fleet

Vessel Type by number of tankers



- Gas tonnage increased from 7 mio dwt in 2015 to 30 mio in 2018
- 635 gas carriers registered by 43 Members
- 7 pure gas fleet Members

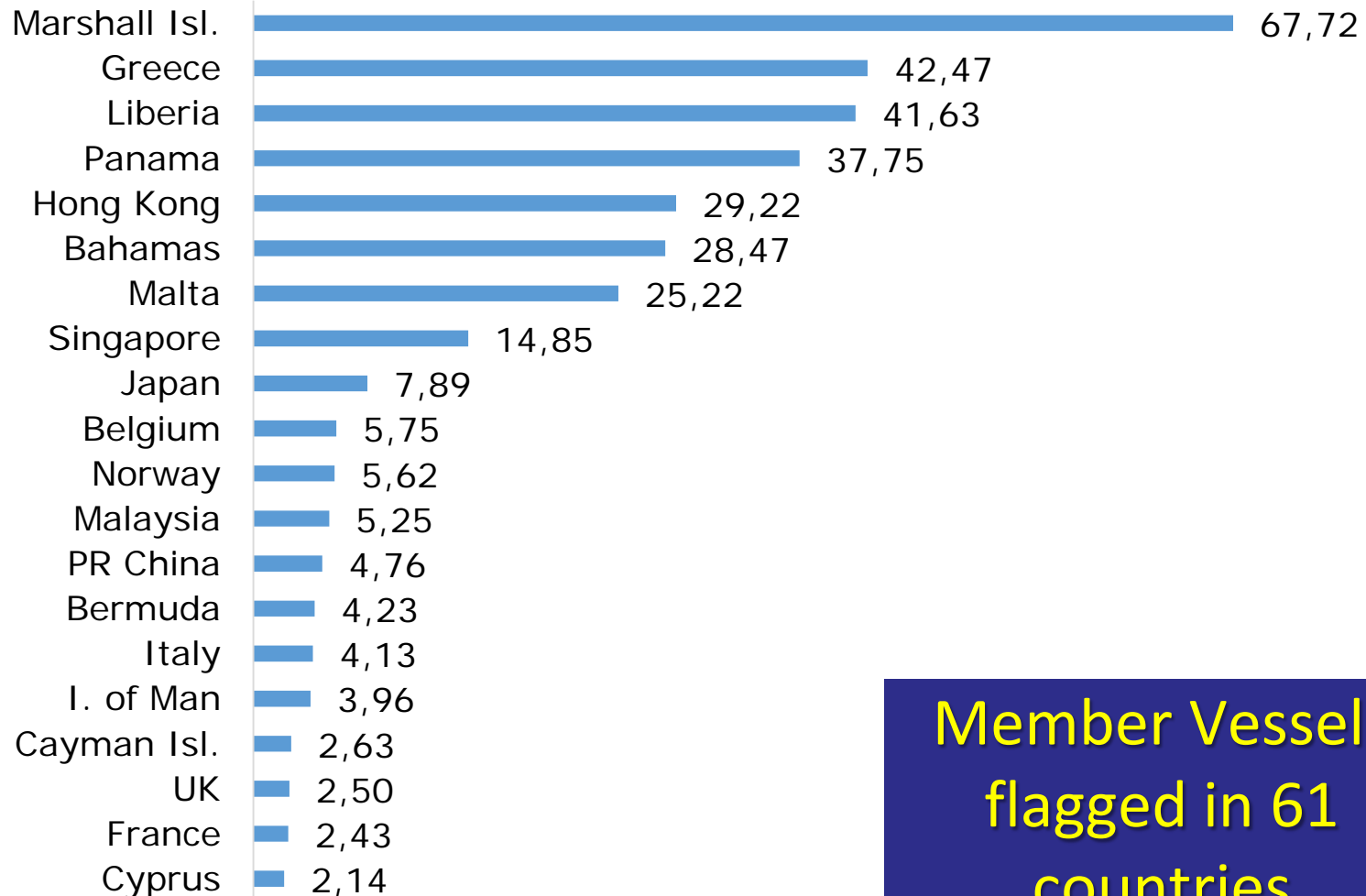




# 2018 Member Fleet

**INTERTANKO**

## Top 20 Flag States by mio DWT



**Member Vessels  
flagged in 61  
countries**



# EU MUTUAL RECOGNITION

**INTERTANKO**

What is the principle of EU MR?

MR is the principle of EU law under which member states (MS) must allow goods that are legally sold in another MS also to be sold in their own territory.

For the exporter, this means that a product legally on sale in one EU country should not have to meet a second set of requirements in the country to which they are exporting.

Importing MS can disregard MR only under strictly defined circumstances, e.g. where public health, the environment or consumer safety are at risk, and where the measures taken can be shown to be proportionate.



# EC 391/2009 – Article 10.1

**INTERTANKO**

- ❖ ROs shall consult with each other periodically with a view to maintaining equivalence and aiming for harmonisation of their rules and procedures and the implementation thereof. They shall cooperate with each other with a view to achieving consistent interpretation of the international conventions .

INTERTANKO does not see an added value in duplicating rule harmonization work at a detailed technical level.

- ❖ ROs shall, in appropriate cases , agree on the technical and procedural conditions under which they will mutually recognise the class certificates for materials, equipment and components based on equivalent standards, taking the most demanding and rigorous standards as the reference.

INTERTANKO is not comfortable with compulsory recognition.



# EC 391/2009 – Article 10.1

**INTERTANKO**

- ❖ Where MR cannot be agreed upon for serious safety reasons, ROs shall clearly state the reasons therefor.  
INTERTANKO urges ROs to avoid applying MR to complex systems.
- ❖ Where a RO ascertains by inspection or otherwise that material, a piece of equipment or a component is not in compliance with its certificate (INTERTANKO questions when would it be possible?), that organisation may refuse to authorise the placing on board of that material, piece of equipment or component. The RO shall immediately inform the other ROs, stating the reasons for its refusal.  
INTERTANKO is concerned that ROs are forced to accept other ROs Type Approved components and can not control the quality of the products except when an incident happens thus warranting their own investigation.



- ❖ There is no limit for the number of systems on board a ship having type approval from other ROs than the RO which classes the ship.

Recital 18 of the EC 391/2009:

*(18) While each RO, in principle, should be held responsible solely and exclusively in relation to the parts it certifies, the liability of ROs and manufacturers will follow the agreed conditions or, as the case may be, the applicable law in each individual case.*

brings further unclear legal responsibilities.

Lack of clarity on responsibilities of a solid control as expected by ship owners, Flag Administrations as well as insurers.



# EU MUTUAL RECOGNITION for SHIPPING

**INTERTANKO**

**MR applied to shipping industry = apparent benefits for manufacturers only**

- Time-saving and cost-effective product approval solution for manufacturers

**No apparent benefit for other stakeholders**

**MR's expected benefits: ensuring a level playing field, removing trade barriers and avoiding multi certification**



# EU MUTUAL RECOGNITION for SHIPPING

**INTERTANKO**

## Drawbacks:

- leading to a loss of control by the RO classing the ship
- limits the ship owner's choice to engage with their trusted Class Society and their preferred service provider
- Limit the competition and technical innovation.
- Underwriters rely on the quality control by the Class classing the ship - MR removes such a quality and risk control measure.
- leads to reflagging ships to non-EU flag states and discourages to build under EU flags



# EU MUTUAL RECOGNITION for SHIPPING

**INTERTANKO**

It is imperative that the ship owners can have confidence on the safety of systems on board their ships.

Key questions which EC and EU MR Group are invited to assess:

- MR introduces a level playing field – did it and if so, how it is assessed?
- Removing trade barriers - what and where are these barriers? Are they removed?
- Is there any indication of a commercial benefit of the MR?
- Does MR incentivise innovation and novelty or is it a hindrance?
- Is veracity on the quality control and testing ensured?





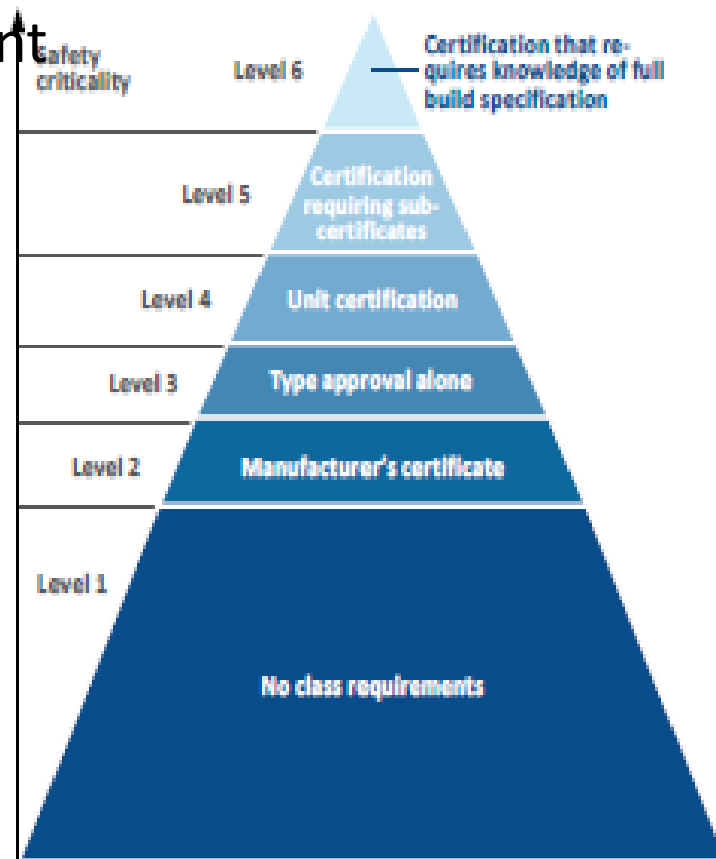
# EU MUTUAL RECOGNITION for SHIPPING

**INTERTANKO**

## ❖ Comments on EU RO Framework Document

Oct 2012 Version 9 July 2018:

- «appropriate cases» are not defined in Version 9.
- «Level 1-6 in Hierarchy» is not included in Version 9.
- “Simplified Risk Based Model” ?



Source: ←  
EU RO First Report to EC  
Oct 2012

Figure 1

Classification safety hierarchy of materials, equipment and components on a ship

Leading the way; making a difference

END

# EU RO MR Group Workshop

## Lars Lange - IUMI





# EU RO Mutual Recognition Group Workshop

## The IUMI View

Lars Lange, IUMI Secretary General  
Wed, 05 Sep 2018, SMM Hamburg



# 1. About IUMI

At a glance



1. International Union of Marine Insurance (IUMI) traces its **roots back to 1874**
2. **Membership**
  - 41 national (marine) insurance associations as members
  - 19 Affiliate Members, 21 IUMI Professional Partners
3. Represents **property insurance** – cargo, hull, offshore energy, special lines





# 1. About IUMI

Our opinions



1. **IUMI Policy Forum** steers and coordinates with Executive Committee (EC) and Technical Committees
2. **Limited number of „current issues“** decided by EC and published on homepage
3. **Example:** Mutual Recognition



## 2. Mutual Recognition - Art 10 (1), EU Reg 391/2009



Where we are

1. Art 10 (1) is into force – the **EU RO MR Group** takes responsibility for implementation of processes and procedures as developed over time
2. EU RO MR Group has its **own governance** led by a steering committee and supported by a technical committee and ad-hoc groups where seen necessary
3. **6 Tiers of „Technical Requirements“** for products eligible under MR developed and in force, Tier 7 of products to come in Jan 2019
4. So far, **ca.130 certificates** issued showing global coverage



# 3. Marine Insurance - underwriting needs information



Decision process in hull and cargo insurance

1. **Risk information** needed for underwriting decision - external information sources essential
2. **Classification has an important role** in ensuring a certain level of safety to the vessel and its equipment – insurers rely on classification’s judgement
3. most individual **insurance conditions have a requirement** that the vessel shall be classed with a classification society approved by the insurer before the insurance commences



# 3. Marine Insurance - underwriting needs information

Example: Nordic Plan



## Nordic Plan 2013 – Version 2016

(Chapter 3 – Duties of the person effecting the insurance and of the assured

Section 2 – Alteration of the risk)

### Clause 3-14. Loss of the main class

- *When the insurance commences the ship shall be classed with a classification society approved by the insurer.*
- *The insurance terminates in the event of loss of the main class, unless the insurer explicitly consents to a continuation of the insurance contract. If the ship is under way when the main class is lost, the insurance cover shall nevertheless continue until the ship arrives at the nearest safe port in accordance with the insurer's instructions.*
- (...)

## *The Nordic Marine Insurance Plan of 2013, Version 2016*

Based on the Norwegian Marine Insurance Plan of 1996, Version 2010





# 3. Marine Insurance - underwriting needs information

Example: German Standard Hull Clauses DTV-ADS 2009



DIE DEUTSCHEN VERSICHERER

## 26. Classification

26.1 *The Insured must notify the Insurer of a change of classification society prior to the change taking place. The Insurer is entitled to cancel the policy for the vessel in question by issuing two weeks' notice within 14 days of receiving such notification.*

26.2 *If the Insured fails to disclose the change of classification society, the Insurer will be discharged from liability unless the nondisclosure was neither intentional nor grossly negligent, or the change of classification society had no effect on the occurrence of the loss or damage or the extent of the Insurer's obligations thereunder.*

26.3 *If the class of vessel expires, is restricted or withdrawn, the insurance will end on the date on which the vessel continues or resumes its voyage without the consent of the classification society.*

(...)

Non-binding publication of the German Insurance Association (GDV) for facultative use.  
Other conditions may be agreed.  
In case of deviations, only the German wording shall be binding and prevail.

DTV - German Standard Terms and Conditions of Insurance for Ocean-Going Vessels 2009

(DTV-ADS 2009)

Standard terms and conditions of the GDV

### Contents

<b>Section One: General Provisions</b>		<b>VIII Notice of loss, loss prevention, breach of obligations</b>
I Insured interest	43	Notice of loss
1 Insured interest	44	Averting and mitigating the loss
2 Lack of insured interest	45	Communication of information and preservation of evidence
3 Loss of insured interest	46	Legal consequences of a breach of obligations
II Insurance for own account, for the account of another		<b>IX Lodgement of claims, communication of information, payment of the indemnity</b>
4 Insurance for own account, for the account of another	47	Lodging of the claim
5 Legal position of the Assured (third-party insured)	48	Loss account, due date for payment of the indemnity
6 Legal position of the Insured (policyholder)	49	Loss arising from delay in payment
7 Offsetting of balances		<b>X Transfer of rights of recourse</b>
8 Knowledge, fault		50 Protection and transfer of rights of recourse
III Term of the insurance		51 Loss mitigation after subrogation
9 Term of the insurance		<b>XI Insolvency of the Insurer</b>
IV Insured value, underinsurance, overinsurance, double insurance, agreed value		52 Insolvency of the Insurer
10 Insured value and agreed value		<b>XII Sale of vessels and vessel parts</b>
11 Underinsurance		53 Sale of vessels and shares in vessels
12 Overinsurance		

## 4. Reliability of Classification

Why is the classification society so important?

1. What if “the” **approved classification society** for an individual vessel is no longer existing but only consolidating different certificates issued by different classification societies?
2. Insurers see **different classification societies** with different size, quality, rule-books, experience, specialisation and training of surveyors – see **port state control mechanisms**
3. Insurers expect that **classification needs to see the whole picture** – is it possible for the RO classing the vessel to mutually recognize certificates issued by other ROs and still to assess the safety case of the overall vessel?



## 5. IUMI's Position

Responsibility of one RO for safety critical parts

- Insurers expect the **survey of safety critical materials, equipment and components** to be carried out **by the insurer approved RO classing the vessel**
- Otherwise, neither the classification society nor owners or underwriters would really know what quality of vessels they have or what quality of components have gone into them
- to allow MR on safety critical materials, equipment and components would undermine the significance of ship classification as a key component of today's safety regime at sea



## 5. IUMI's Position

MR only for not safety critical parts

1. Don't take it further as to Level 3 products and type approval
2. Don't undermine the responsible decision about „safety criticality“ in the Product Consideration Process
3. „unit certification“ / „compley systems“ with need for system integration considerations are too complex for MR – it needs a holistic approach
4. Materials are not fitting for the MR process

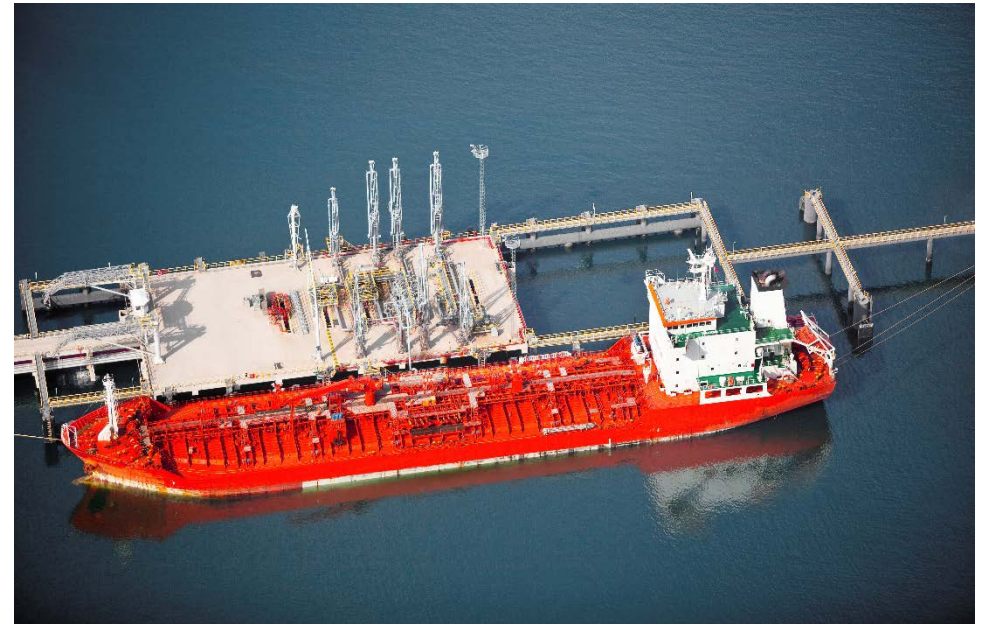




## 6. Finally - some critical questions

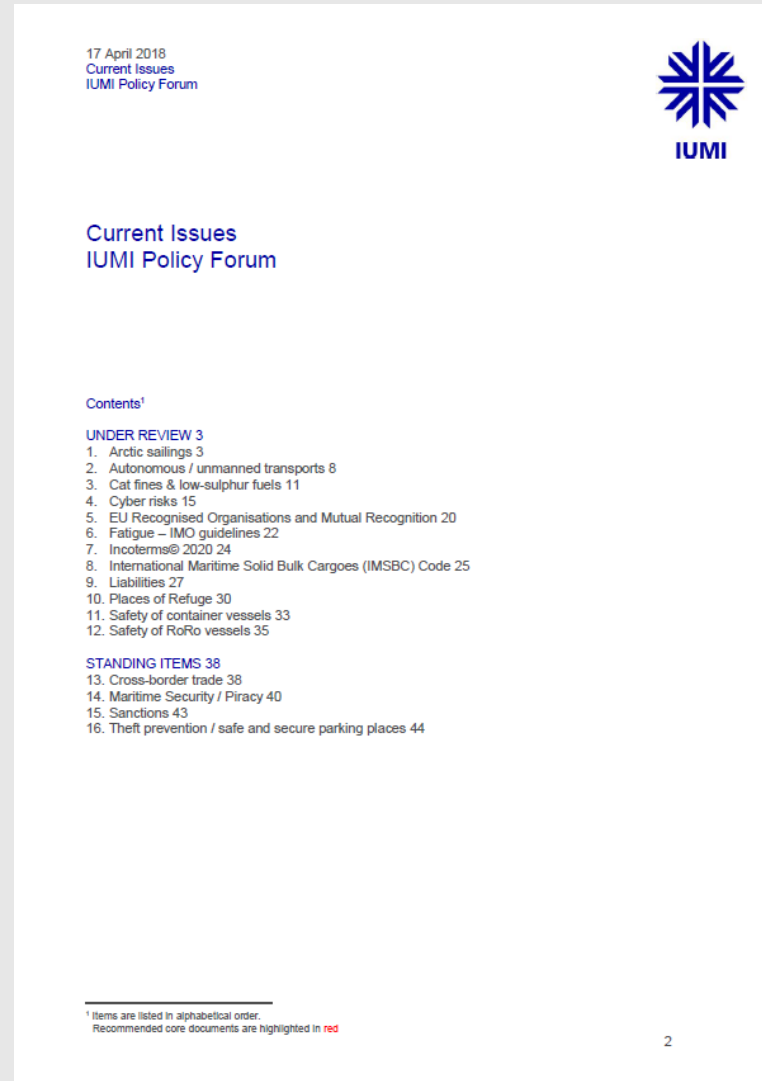


1. Isn't an unflexible MR system slowing down innovation?
2. Commercially:
  - Does the system discourage to build under EU flag?
  - Are ship-owners still able to cooperate with their known and trusted partner classification society?
3. How do ROs ensure the update of all „EU RO Mutual Recognition Technical Requirements“?
4. How does the system wish to deal with third party flag states?



# 7. IUMI Current Issues

IUMI „Current Issue List“ on [www.iumi.com](http://www.iumi.com) – „Opinions“







# That's it!

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# EU RO MR Group Workshop

## Peter Müller-Baum - VDMA Engines and Systems



Peter Müller-Baum  
Managing Director  
VDMA Engines and Systems



# EU RO MR Group Workshop on Mutual Recognition

Hamburg  
September 5, 2018







# Classification for the 21<sup>st</sup> century

## Where do we stand today?



### Situation Review

- » The manufacturing landscape is currently changing significantly with an impact on almost all supply chain processes in the shipping industry
- » Digital technology including IoT already underpins the world around us and is a trend that it set to accelerate in the years ahead
- » Industry 4.0 processes and 'advanced manufacturing' has the potential to provide step changes in productivity and product quality by using data
- » Taking all this into account, it seems that the idea of 'Mutual Recognition' tries to answer past questions, while we need to find solutions for tomorrow's challenges

# Classification for the 21<sup>st</sup> century

## What are the tomorrow's challenges?

### Changing nature of the shipping industry

- » Industry needs to safely and rapidly exploit the benefits offered by developing technologies
- » Industry expectation to derive greater value from class and statutory compliance activities
- » Industry and regulatory expectation for greater commonality in rules and standards
- » Goals and performance Requirements implicit in current Rules need to be explicitly articulated
- » Rules development needs to ensure consistency in decision and application and to avoid unworkable or unachievable solutions that appear fine on paper







# Classification for the 21<sup>st</sup> century

## What might be the right answers?



### Advanced manufacturing

- » Direct Survey/Inspection activities at manufacturers will continue to become less relevant
- » Alternative certification schemes of Classification societies, offer to varying degrees, a level of flexibility to allow for evolving best manufacturing practices
- » The application of using data and statistical analysis could help to achieve product stability and quality improvement
- » It is time for a concept of independent verification of the strategies for certifying marine equipment throughout the entire life-cycle
- » Solution might be seen in less prescriptive, risk based rules and flexible intervention requirements to be applied through the adoption of audit based inspection regimes





Thank you  
Thank you  
for your attention!

# EU RO MR Group Workshop Stakeholder Presentations

Thank you for your kind attention!

