Focus on ship responsibility: from Port State Control back to the flag state

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Focus on ship responsibility: from Port State Control back to the flag state

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Preface

Even though I ended my work for the Netherlands Shipping Inspectorate- in the field of port and flag state control- 5 years ago, my interest for these matters has not diminished. Even today, working as a maritime lecturer, I remain involved and strive to hand my experience as a ships officer, surveyor and advisor to the next generation of seafarers. Awareness about safety, pollution prevention and working conditions are important aspects for all actors in the maritime arena- in particular for ships’ crews- as it has influence on their lives at sea.

I would like to thank my promotors: professor Frank Maes and Mr. Klaas Willaerts for their support during my master study, in particular with regard to this thesis.

I would like to express gratitude towards all my maritime colleagues, both national and international, for their cooperation and support.

In addition a special thanks to Jeroen Witter for re-introducing me into the labyrinth of IMO, and Bert Schollema for his moral and editorial support.

Above all I would like to thank my family for their patience and support during my master study, in particular in the phase of conducting this research work and the process of creating the report you are reading.

Dordrecht, 14-05-2016.
## List of acronyms and abbreviations

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<th>Description</th>
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<tbody>
<tr>
<td>ABS</td>
<td>American Bureau of Shipping</td>
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<tr>
<td>ACS</td>
<td>Alternative Compliance Scheme</td>
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<td>BIMCO</td>
<td>Baltic and International Maritime Council</td>
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<td>BMA</td>
<td>Belgium Maritime Administration</td>
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<td>BMI</td>
<td>Belgian Maritime Inspectorate</td>
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<tr>
<td>BV</td>
<td>Bureau Veritas</td>
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<tr>
<td>CAS</td>
<td>Condition Assessment Schema</td>
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<tr>
<td>CASR</td>
<td>Consolidated Audit Summary Reports</td>
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<td>CCS</td>
<td>China Classification Society</td>
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<td>CFSG</td>
<td>Corporate Flag State Governance</td>
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<td>CIC</td>
<td>Concentrated Inspection Campaign</td>
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<tr>
<td>Co2</td>
<td>Carbon Dioxide</td>
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<tr>
<td>COLREG</td>
<td>Convention on the International Regulations for Preventing Collisions at Sea.</td>
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<tr>
<td>CRS</td>
<td>Croatia Register of Shipping</td>
</tr>
<tr>
<td>CS</td>
<td>Classification Society</td>
</tr>
<tr>
<td>DIS</td>
<td>Danish International Ships (Register)</td>
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<td>DMA</td>
<td>The Danish Maritime Authority</td>
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<tr>
<td>DNVGL</td>
<td>Det Norske Veritas Germanischer Lloyd</td>
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<tr>
<td>DoC</td>
<td>Document of Compliance</td>
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<tr>
<td>DPT</td>
<td>Department for Transport</td>
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<td>EF</td>
<td>Excess Factor</td>
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<tr>
<td>EFTA</td>
<td>European Free Trade Association</td>
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<td>EMSA</td>
<td>European Maritime Safety Agency</td>
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<td>EQUASIS</td>
<td>European Quality Shipping Information System</td>
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<tr>
<td>ESP</td>
<td>Enhanced Survey Programme</td>
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<tr>
<td>FoC</td>
<td>Flag of Convenience</td>
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<tr>
<td>FOD</td>
<td>Federeale Overheids Dienst</td>
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<tr>
<td>GISIS</td>
<td>Global Integrated Ship Information System</td>
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<tr>
<td>GT</td>
<td>Gross Tonnage</td>
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<td>HLAP</td>
<td>High Level Action Plan</td>
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<tr>
<td>IACS</td>
<td>International Association of Classification Societies</td>
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<td>ICS</td>
<td>International Chamber of Shipping</td>
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<td>IGPI</td>
<td>International Group of P&amp;I Clubs</td>
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<tr>
<td>III Code</td>
<td>IMO Instruments Implementation Code</td>
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<td>ILenT</td>
<td>Inspectie Leefomgeving en Transport (the Netherlands) (Human Environment and Transport Inspectorate)</td>
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<td>ILO</td>
<td>International Labour Organisation</td>
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<td>IMO</td>
<td>International Maritime Organisation</td>
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<td>IMSAS</td>
<td>IMO Member State Audit Scheme</td>
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<td>INTERCARGO</td>
<td>International Association of Dry Cargo Shipowners</td>
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INTERTANKO  International Association of Independent Tanker Owners
IOPP   International Oil Pollution Prevention
ISM    International Safety Management
ITF    International Transport Workers’ Federation
IUA    International Underwriting Association of London
IUMI   International Union of Marine Insurance
KR     Korean Register (of Shipping)
LL     Load Line
LOSC   Law of the Sea Convention
LR     Lloyds Register of Shipping
MARPOL Marine Pollution
MCA    Maritime and Coastguard Agency
MEPC   Marine Environment Protection Committee
MLC    Maritime Labour Convention
MSC    Maritime Safety Committee (IMO)
NGO    Non-Governmental Organisation
NIR    New Inspection Regime (PSC)
NKK    Nipon Kaiji Kyokai
NOx    Nitrogen Oxides
NSI    Netherlands Shipping Inspectorate
OCIMF  Oil Companies International Marine Forum
OECD   Organisation for Economic Co-operation and Development
P&I    Protection and Indemnity
Paris MoU Paris Memorandum of Understanding
PM     Particulate Matter
PRS    Polish Register of Shipping
PSC    Port State Control
PSCO   Port State Control Officer
QACE   Quality Assessment and Certification Entity
RINA   Registro Italiano Navale
RMRS   Russian Maritime Register of Shipping
RO Code Recognised Organisation Code
RO     Recognised Organisation
SAF    Self-Assessment Form
SIRE   Ship Inspection Report Programme
SMC    Safety Management Certificate
CDI-M  Chemical Distribution Institute-Marine
SOLAS  Safety of Life at Sea
SOx    Sulphur Oxides
SRP    Ship Risk Profile
STCW   Standards of Training Certification and Watchkeeping
SVIS   Ship Vetting Information System
<table>
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<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNCLOS</td>
<td>United Nations Convention on the Law Of the Sea (see also LOSC)</td>
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<tr>
<td>UNCORRS</td>
<td>UN Convention for Registration of Ships</td>
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<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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<tr>
<td>VIMSAS</td>
<td>Voluntary IMO member State Audit Scheme</td>
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<tr>
<td>WGT</td>
<td>World Gross Tonnage</td>
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Summary

Shipowners/operators, flag state, port states, Classification Societies, Recognised Organisations (ROs) and other maritime stakeholders play a role in collectively implementing, maintaining and raising the standards of shipping. Above all the responsibility for keeping the ship maintained lies primarily with the captain and the ship owner/operator; in addition, the flag state issues certificates and is also responsible for enforcing the legal requirements. Ship inspections can be delegated to ROs, whereas the responsibility remains with the flag state. Port State Control (PSC) is enforcing compliance with the requirements on foreign flag ships, as a necessary safety-net, as history (of accidents and spills) has shown. Flag states have to take steps when a ship is detained, or an incident occurred, however further enforcement requirements are less detailed. Hence the central research question is: "What is the best way for a flag state to give an interpretation of the supervisory package to ships and ship owners/operators that are under its supervision?"

Responsibilities can be seen from different legal perspectives; On a global UN level from the UNCLOS (overall), IMO (technical; SOLAS, MARPOL, STCW) and ILO (labour; MLC). Two subjects under SOLAS are further reviewed: ISM and maritime safety measures, like PSC and authorisation of the ROs. In addition EU (flag) states have to comply with EU Regulations and Directives. New Conventions are frequently triggered by accidents and spills. Port states cooperate within Memoranda of Understandings (MoUs) on common enforcement procedures and databases. Shipowner and cargo associations, P&I clubs, labour unions are other parties involved.

The supervision package of selected EU flag states (i.e. Belgium, Denmark, Malta, the Netherlands and the United Kingdom) is reviewed, taking the following elements into account: PSC performance - detentions and (ISM) deficiencies, IMO VIMSAS audit, certification (by the flag and/or RO), monitoring of and supervision on ROs and finally the flag state enforcement, containing risk based inspections and ISM audits on board ships and offices of the ship-operators.

None of the selected EU flag states was listed on the black or grey Paris MoU flag performance list as required by the EU “PSC Directive”. Supervision on ROs is carried out by both EMSA and the flag states. Suspensions or withdrawal of RO authorisation was not applied, nevertheless RO related PSC detentions did occur on ships of mainly the Dutch flag (2012 and 2013) and Malta flag (2012, 2013 and 2015). The number of detentions remained relatively low.
or even further decreased for all states, beside Malta showed a slight increase. As for the ‘division’ of surveys and certification between flag states and ROs; most of this tasks have been delegated from the flag to the RO, whereas the UK is performing the ISM audits by themselves and Belgium and Denmark had partly delegated the ISM to the ROs. Additional flag state enforcement inspection are carried out, however these are mostly risk based and are largely restricted to national ports and occasional foreign ports. Flag states are depending on data from PSC MoUs (mostly Paris MoU, also Tokyo MoU) and USCG for their risk assessments, which include detentions, an *a posteriori* result.

A more pro-active flag state programme could further minimise detentions and accidents in the future. Based on the research the best possible scenario for a flag state supervision and monitoring would consist of: ISM audits (ship and office) to be performed by the flag state, other technical statutory inspection and certification to be delegated to the RO, during ship audits endeavour monitoring of the RO on board, follow up of all detentions including visit to the office, full analysis of available data (PSC, flag state, RO inspection and accidents), additional risk based inspections based on the analysis mentioned above- irrespective of the ships’ or office location-, annual meetings with involved parties to discuss best practices and finally promoting safety culture with the crew on board. All parties will have to continue co-operating to maintain a high standard on safety, pollution prevention and working conditions, as this will benefit all.
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1. INTRODUCTION

The International Maritime Organisation (IMO) emphasise that flag states, port states and coastal states, ship owners and classification societies are among the stakeholders that play an important role in “collectively implementing, maintaining and raising the standards of shipping”. The IMO is the global standard-setting authority for the safety, security and environmental performance of international shipping. Likewise the International Labour Organisation (ILO) establishes global standards for regulation on labour and decent work for inter alia seafarers.

Flag states issue certificates that reflect the rights of the flag. The flag state itself, or a Recognised Organisation (RO) acting on behalf of it, will also issue statutory certificates that show, amongst other things, the ship to comply with internationally stipulated safety, marine environment protection and working condition requirements. The responsibility for keeping the ship maintained lies primarily with the captain and the ship owner/operator. In addition to issuing certificates, the flag state is also responsible for enforcing the legal requirements indicated.

At the same time, the lack of effective implementation and enforcement of IMO standards and shipping incidents were drivers for enforcement by Port State Control (PSC). The increasing focus on the enforcement safety-net of PSC can be considered as a response to ineffective flag state control. In an ideal world each party will play by the rules, thus creating an honest and level economic playing field. In that ideal world, there is no issue of gaining competitive advantage through the selective application of expensive, legal requirements. The real world, however, is different. PSC has been devised to limit the number of cases of sub-standard shipping and to protect seafarers and the marine environment. Self-policing by ships, ship

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5 See infra section 2.7.
7 Grounding of the VLCC Amoco Cadiz off the coast of Brittany (France) in 1978, causing a massive oil spill.
owners/operators and flag states leaves much to be desired; even now, ships may be prevented by PSC from leaving the port or anchorage (detention) because of inter alia un-seaworthiness and/or danger to the marine environment. The number of detentions of ships sailing, for example, under Dutch or Greek flag, has shown an increase over recent years (2012-2014) and their position on the "flag performance list" part of the Paris Memorandum of Understanding (Paris MoU) has been adjusted downwards. Apparently owners/operators and flag states have not taken their duties and responsibilities. Nonetheless, the implementation of IMO measures is the responsibility of its Member States and the industry and includes responsibility of the flag state.

The degree to which flag states exercise their responsibilities varies. Conforming to the findings of the PSC inspection in an ad-hoc way - thus differently to what is stipulated by the international conventions on a more permanent basis - seems for some ship owners/operators to be the minimum as well as the maximum standards. In short, the safety net is becoming more elastic in nature - in an ideal world the PSC would not be needed- and the responsibilities of the primarily responsible parties (ship, ship-owner/operator, flag state) fade even further away. Hare (1996) states that the industry has become sick and needs PSC to get better. According to Marten (2014) since World War II an increasing degree of rules has been called into existence for the shipping industry, applied to port states and to a lesser extent to coastal states. Three reasons may explain this, according to Marten: the arrival of "Flags of Convenience" (FoC), the increasing role of the IMO in the area of international maritime regulations and, following the rise in the number of tanker incidents, the increased attention given to environmental pollution by shipping. Flag states often take repressive measures when a ship sailing under their flag is detained. Measures taken to improve the performance of the ship are often directed at preventing detention rather than preventing accidents. Ship

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9 See infra subsection 3.1.1.
15 See infra, subsection 2.1.3.
owners/operators must consistently and continually meet the minimum applicable legal requirements.

The flag state responsibility comes from the International Conventions and for EU Member States from EU directives. The first consideration about the flag state responsibility will adhere to the UN Convention on the Law of the Sea (UNCLOS 1982). According to article 94 of the UNCLOS 1982 the flag state is obliged to execute effective jurisdiction and supervision in administrative, technical and social matters.

In addition, the IMO Implementation Code (III Code)-Resolution A.1070(28) has been in force since 4 December 2013. All flag states, regardless of whether the EU regulations apply or not -as laid down in the IMO-III Code-, amongst others, take adequate corrective measures in the event that the ship is detained. Conducting an accident investigation is such a corrective measure.

For EU Member States, the flag state directive has been in force since 2009. This directive compels EU flag states to ratify international conventions established within the context of the IMO, thereby ensuring all the requirements coming from these conventions are implemented.

There are, however, hardly any preventative measures towards ships and ship operators other than the prescribed regulations within the framework of the regular statutory certification. In the extreme case, the flag state takes up a passive stance and only takes corrective action after a ship sailing under their flag has been detained or after it has been involved in an accident. On the other side of the spectrum the flag state actively performs a proactive flag state supervision/monitoring policy to prevent detentions and accidents.

All this gives rise to a central research question: "What is the best way for a flag state to give an interpretation of the supervisory package to ships and ship owners/operators that are under its supervision?"

Subsidiary questions are as follows:

- What are the legal requirements for the ship and ship owner/operator in respect of safety, environment and working conditions?
- Which parties supervise that legal requirements are observed?

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- Which other parties are involved in maintaining a safe and clean shipping?
- In what way do a number of EU flag states monitor ships and ship owners/operators that are under their supervision?

This thesis shows the outcome of research into ways in which flag states -with a focus on a limited number selected EU states- could, or should, best implement their responsibilities with respect to the monitoring of ships and ship owners/ship operators, from various perspectives. This report aims to give a contribution to further optimisation of the flag states’ supervision.

These responsibilities are investigated by way of researching relevant literature. Also, a selection of flag states is investigated and interviewed focusing on PSC performance, flag state policy and implementation with respect to statutory certification -by the flag state themselves and/or, on their behalf, by the RO, interpretation of the EU flag state directive\(^\text{19}\) and the III Code\(^\text{20}\).

This report is not an in-depth investigation into accidents (investigation) and (prevention of) pollution by ships and (international) agreements and obligations for the control, combating and legal proceedings thereof. For this, reference is made to other research outcomes and publications.\(^\text{21}\)

This thesis is structured as follows:

Chapter 2 provides the theoretical framework for, and a background to the perspective and responsibility of the flag state seen from the point of view of maritime conventions and regulations on global and regional level. Secondly, the role of organisations and parties related to the flag state, like classification societies, ROs, PSC and third parties (commercial and others) are described.

In Chapter 3 first a selection of European flag states is made, using a multi-criteria based method. Then, the selected flag states are described, in particular with regard to its monitoring responsibilities including certification, supervision of ROs and enforcement.

\(^{19}\) Directive 2009/21/EC. See supra note 18, infra section 2.4.

\(^{20}\) III Code. See supra note 17.

In Chapter 4 the results of the flag states’ monitoring achievements are evaluated and compared.

Finally in Chapter 5 conclusions and recommendations are formulated.
2. PERSPECTIVE AND RESPONSIBILITIES. THE THEORETICAL FRAMEWORK.

According to Barchue (2009) the regulatory and enforcement paradigm of international shipping has five principal actors: the IMO, governments, Recognised Organisations (ROs), ship owners/shipping companies and seafarers. These actors should join forces to prevent risk such as loss of lives or environmental damage, while conforming to the international and national legal requirements.

Supervision of sea-going ships can be considered from different legal perspectives. The United Nations (UN) encourages international law “across its three pillars of work: international peace and security, economic and social progress and development, and respect for human rights and fundamental freedoms” and provides support to Member States on the legal regime for oceans. The United Nations Convention on the Law of the Sea (UNCLOS 1982) includes general regulations for flag states, coastal states and port states with respect to legislation, compliance and enforcement (section 2.1).

In addition the UN incorporates the autonomous and specialised agencies International Maritime Organisation (IMO) and International Labour Organisation (ILO). Under the authority of the IMO technical legislation for shipping is effectuated, via different conventions such as, Safety of Life At Sea (SOLAS) and Marine Pollution (MARPOL) (section 2.2).

The ILO has adopted international labour standards for seafarers, which were merged into a single Maritime Labour Convention (section 2.3).

Following the focus on the global context, the regional EU viewpoint is looked at (section 2.4) and the responsibility of the flag state is summarised (section 2.5) is considered.

The responsibility from the perspective of the Classification Society is considered (section 2.6) and the ROs (section 2.7) are reviewed.

Lastly the perspective of PSC and other involved parties is described.

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2.1 UN Convention on the Law of the Sea perspective

As introduced above the UN is supporting the achievements of Member States “to strengthen the legal regime for oceans, as reflected in the United Nations Convention on the Law of the Sea”.26

2.1.1 Introduction

The preamble in the Law of the Sea Convention states that the aim of the Convention is to strengthen the peace, safety, co-operation and the friendly relations between all nations who agree with the principles of justice and equal rights.27 In subsequent paragraphs, relevant articles taken from the Law of the Sea Convention are cited, followed by notes and points for consideration.

2.1.2 Law of the Sea Convention, an analysis

International maritime law compromises all legal rules that exist “between the subjects of international law that apply with respect to the use of the sea...” and “functioning principally between States”.28 The Law of the Sea Convention has a limited operational character and can be seen as an umbrella legislation, whereas IMO Conventions are more technical and operational in nature.29

A foreign flag30 ship may sail the territorial sea of another state provided this happens as an innocent passage. This term implies there will be no danger to peace or safety to the coastal state. It includes that the ship is not allowed to purposely or seriously pollute.31 The right of

30 Ship that sails under foreign flag, i.e. any other flag (other than the flag state itself).
innocent passage is a generally recognised common law concerning the behaviour of the ship, and in particular, about behaviour of the ship during the passage.32

The coastal state of a territorial sea can adopt laws and refer to innocent passage, for example regulating the safety of shipping. In principle, these laws are not applicable to the design, construction, crew or equipment of foreign ships.33

The high seas are open to all states 34 and each state has the right to sail ships on them, under their own flag35. The nationality of a ship is one of the most important guarantees of international law for the freedom of shipping and the use of the sea and "the possession of a nationality is the basis for the control and protection of the flag state”.36 The state must specify the conditions for granting its nationality to ships and for registering ships under their flag. The conditions for carrying their flag are determined by the states themselves and these registration conditions must - for EU states- not be contrary to European legislation.37 However there must be a genuine link between the state and the ship.38 Within different conferences from United Nations Conference on Trade and Development (UNCTAD) discussions have taken place (between 1974 and 1988) about the genuine link. The outcome resulted in the UN Convention on Conditions for Registration of Ships (UNCCORS)39, which contains the requirements of management, ownership and crew40. The convention also looks at the role of the flag state with respect to the management of ships and ship owners/operators41. It should come into force after ratification by 40 Member States who represent 25% of Gross Tonnage (GT). To this date this has not happened and as a result the convention is not operational now.42 The manner of enforcement (a posteriori) of flag states (through PSC) has an effect, but according to Hosanee (2008) it would be much better to rejuvenate the genuine link concept43.

34 UNCLOS 1982, art. 87. See supra note 4.
35 UNCLOS 1982, art. 90. See supra note 4.
38 UNCLOS 1982, art. 91. See supra note 4.
42 The status as of 12th of August 2015: 15 states have signed, including one EU member – Poland.
It is not sufficient only to look at the ship ownership criteria when determining the nationality of a ship\(^{44}\). It is compulsory for the flag state to check on administration, technical and social areas and to keep effective jurisdiction and supervision of the said areas\(^{45}\).

Above all\(^{46}\), inter alia every state is required to keep a register and take the necessary measures to ensure safety at sea that concern, amongst other things, the construction, equipment and seaworthiness, crew of the ships (working conditions and training) and prevention of collisions. Measures include investigations by experts, while charts and navigation equipment must be on board for a safe passage, the fact that the captain and officers are skilled (in matters of navigation, seamanship, maritime communications, or marine engineering)\(^{47}\) and that the international rules for SOLAS are complied with, the prevention of collisions\(^{48}\), preventing, reducing and combating pollution of the sea\(^{49}\), as well as maintaining of radio communications.

The flag state is obliged to ensure compliance to the aforementioned. Any state that has genuine reasons to think that the applicable jurisdiction and supervision in respect of a ship are not carried out, can report the facts to the flag state\(^{50}\). The flag state is required to investigate this and take measures to correct the situation. Finally, the flag state must perform an investigation following any accident happening at sea, navigation incident, loss of life or serious injury to national citizens or serious damage to ships or installations from another state, or cause of pollution to the marine environment.\(^{51}\) In summary, the flag state must comply with minimal\(^{52}\) international standards and has the sovereign responsibility to ensure that its ships are managed and maintained so that the (safety) risk to seafarers, marine environment and cargo is kept as low as possible.\(^{53}\)


\(^{46}\) At least, but not limited to. Ships must also comply with rules established by IMO and ILO. See also *infra* sections 2.2 and 2.3.


\(^{49}\) MARPOL 73/78. See *supra* note 25.

\(^{50}\) UNCLOS 1982, art. 192, 194. See *supra* note 4.

\(^{51}\) UNCLOS 1982, art. 94.7.

\(^{52}\) At least equal to, not less. More is allowed.

States have the general responsibility to protect and preserve the marine environment and to take measures to prevent, reduce and combat pollution to it. Measures with respect to limiting environmental pollution are specially aimed at preventing accidents and giving help in emergency situations, ensuring safety of work at sea, preventing intentional or unintentional operational discharges, regulating the design, construction, equipment, activities and crewing of ships. In the area of marine pollution more room is gradually being made for regional cooperation and the development of legal rules.

The measures taken for preventing pollution of the marine environment may also be maintained, amongst others, by the flag state and port state. The flag state itself must see to it that all these laws are complied with and maintained regardless of where the offence takes place and if necessary forbid the ship to sail until it meets international requirements.

The flag state issues certificates when the ship meets the requirements and performs periodic inspections to check if the ship is still complying with these. The certificates issued by the flag state, in the presence of other states, are proof (prima facie) of the state of the ship, unless there are clear reasons to suppose the ship is in an unfit condition.

Port states and coastal states may carry out inspections on ships sailing under a foreign flag if there is evidence of an illegal discharge by that ship in coastal waters, on territorial seas or in exclusive economic zone of the (port) state. In addition the port state may perform inspections at the request of the flag state of the ship provided that the offence has taken place in coastal waters, territorial sea, exclusive economic zone of the flag state, or elsewhere (for example on the open sea). By performing an investigation the port state cannot unduly hold the ship (undue delay) and the states need to work together to avoid unnecessary delays.

54 UNCLOS 1982, art. 192. See supra note 4.
55 UNCLOS 1982, art. 194.
56 UNCLOS 1982, art. 193.3.b.
58 UNCLOS 1982, part XII, section 6.
59 UNCLOS 1982, art. 221.
60 See infra section 2.8.
61 UNCLOS 1982, art. 218.
62 UNCLOS 1982, art. 226. See also infra 2.8.
Finally, in addition to the provisions of the Law of the Sea Convention, states must comply with other treaties concerning the protection of the marine environment.63

2.1.3 Open Registers

A ship owner can have different reasons for flagging his ship under a so-called "Flag of Convenience" (FoC). The main reason is one of economic advantage. There are fiscal advantages and less stringent regulations with respect to social facilities64. At the same time “open register” flags exist, whereby the flag register is open for international shipping, for example Norway, Denmark, Luxemburg and Malta. However, it is really too simplistic to say that all open register flags are sub-standard: open register ships that meet the higher standards of traditional maritime nations do exist65, the flag states mentioned above are included in the white list of the Paris MoU66. A sub-standard ship can be defined as: "A ship whose hull, machinery, equipment or operational safety is substantially below the standards required by the relevant convention or whose crew is not in conformance with the safe manning document.”67

According to the Paris MoU (2014) the following flag states are listed on the black list: Sierra Leone, Cambodia, Saint Vincent and the Grenadines, Belize, Comoros, Dominica, Cook Islands, Togo, Republic of Moldova, Tanzania United Republic68 and can be regarded as sub-standard.

In addition, crews from foreign states (different to the FoC) may be employed on board and even "crews of convenience" from third world countries are placed on board.69 Examples of cheap flag countries are: Panama, Liberia and Cambodia, amongst others. Ships sailing under an FoC register have been involved with shipping disasters and mostly coincide with serious pollution of the marine environment. For example: Amoco Cadiz, Torrey Canyon, Sea Empress

63 UNCLOS 1982, art. 237. See supra note 4.
and more recently the *Erica*. A study by the Organisation for Economic Co-operation and Development (OECD) shows that a ship owner can economise on up to 15% of operational costs, whilst at the same time not meeting the minimum international requirements. This has been clearly shown to increase the adverse effects on safety, environment and crew; An analysis of 20 year old data about detentions and accidents recorded in safety and quality dossiers from open register flags shows the loss and detention ratios from open register flags to be greater than the world-wide average, with the exception of Liberia, Marshall Islands and Barbados. The ecological consequences of environmental disasters and public consternation have resulted in an expansion of coastal state jurisdiction, unilateral port state enforcement and the adoption of conventions via the IMO and ILO. Criticism, namely against (open registers and) sub-standard, was mainly aimed at the failure to meet standards. The resulting details of conventions and standards with respect to construction, design, equipment, crew and environmental pollution, have focussed the attention more on the general characteristics of the open register system, in particular the real genuine care the flag state has over the seaworthiness of the ship and the well-being of the crew.

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70 See *infra* section 2.4.
74 Under the standard; not complying with minimal international requirements.
2.2 The IMO perspective

The IMO is an agency of the UN that has a large influence on its Member States and their role as flag states (covering areas like certification, control and enforcement), coastal state and port state. In the different roles areas like safety, marine environment and liability are covered.

2.2.1 IMO introduction

IMO is a specialised United Nations agency established from a UN convention in 1948 in response to the wishes of various Member States who saw that a permanent organisation was needed that would pay more attention to maritime safety. The IMO was established in 1959.

According to article 1(a) of the IMO Convention\textsuperscript{77} the goal of the IMO is: to provide machinery for cooperation among Governments in the field of governmental regulation and practices relating to technical matters of all kinds affecting shipping engaged in international trade; to encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships.\textsuperscript{78}

The IMO mission statement may be quoted as follows:

The mission of the International Maritime Organization (IMO) as a United Nations specialized agency is to promote safe, secure, environmentally sound, efficient and sustainable shipping through cooperation. This will be accomplished by adopting the highest practicable standards of maritime safety and security, efficiency of navigation and prevention and control of pollution from ships, as well as through consideration of the related legal matters and effective implementation of IMO’s instruments with a view to their universal and uniform application.\textsuperscript{79}


\textsuperscript{79} Ibid.
The IMO slogan was derived from this: “Safe, secure and efficient shipping on clean oceans”.

IMO counts 170 Member States (members). In addition, shipping companies and other stakeholders/interested parties are represented in Inter-Governmental Organisations (IGOs) and have collaboration agreements with IMO. Also several Non-Governmental Organisations (NGOs) have a consultative status. IMO's governing body is the Assembly, in which all member states take part, meeting once every two years to approve the budget for the next two years. The Assembly also approves the technical resolutions and recommendations that have been prepared by underlying sub-committees. The daily IMO board is made up of a 40 member Council that, between the 2 yearly Assembly, formulates proposals for the Assembly's work program and prepares the budget. Belgium, Denmark, Greece, Malta, the Netherlands and the United Kingdom have seats in the Council, during the 2016-2017 biennium. The more technical work content is prepared by a variety of committees, most important of which are the Marine Safety Committee (MSC) and the Marine Environment Protection Committee (MEPC).

MSC and MEPC have a number of different sub-committees that prepare the more technical content:

- Sub-Committee on Human Element, Training and Watch keeping (HTW);
- Sub-Committee on Implementation of IMO Instruments (III);
- Sub-Committee on Navigation, Communications and Search and Rescue (NCSR);
- Sub-Committee on Pollution Prevention and Response (PPR);
- Sub-Committee on Ship Design and Construction (SDC);
- Sub-Committee on Ship Systems and Equipment (SSE);
- Sub-Committee on Carriage of Cargoes and Containers (CCC).

The Implementation of IMO Instruments (III) Sub-Committee, also known as triple I –Sub-Committee, has taken over from the Flag State Implementation (FSI) Sub-Committee as of July 2014. This flag did not cover everything because this Sub-Committee, in addition to flag states

82 Ibid.
(also including accident investigation), also concerns itself with coastal state and port state subjects and the implementation of IMO instruments.

2.2.2 IMO conventions

IMO Conventions often arise following shipping disasters. The Titanic disaster was the trigger for the Safety of Life at Sea (SOLAS) Convention\(^83\) (1\(^{st}\) version adopted in 1914), the extensive Torrey Canyon oil disaster and the ensuing public consternation, led to the Marine Pollution (MARPOL) Convention\(^84\) which took over from the OILPOL Convention\(^85\).

Two other major conventions deal with freeboard of ships (Load Line)\(^86\) and requirements on Standards of Training, Certification and Watchkeeping for seafarers (STCW)\(^87\).

The majority of conventions fall into three main categories; maritime safety, the prevention of marine pollution and liability and compensation (especially in relation to damage caused by pollution)\(^88\).

An up to date list of all IMO Conventions, their status and action dates (adoption and entry into force) can be found on the IMO website.\(^89\) Member States are required to enforce the Conventions on the ships flying their flag.

It should be noted that an average time between adoption and entry into force of a convention is 3.1 years and the more parties ratify a convention the more likely safety is improved and pollution is decreased.\(^90\) Having stated that, IMO’s weak connection to the Member States may be a core problem, additional new rules may not be the magic solution and may even affect existing regulations in a negative way.\(^91\) Knudsen suggested some solutions: a system of fines and inspectors employed by IMO instead of the Member State and additional supervising

\(^83\) SOLAS. See supra note 24.
\(^84\) MARPOL73/78. See supra note 25.
inspections by the IMO. Another critical issue is voiced by Mitroussi (2004), indicating that implementation of adopted regulations are not easily achieved due to e.g. the consensus decisions making process, the growth of regionalism and regional PSC. In addition for early conventions a two third majority was required to amend conventions, which caused long delays. Instead a faster "tacit acceptance" procedure has been used, for instance for the SOLAS 74, most (technical) amendments were “deemed to have been accepted after a period of 2 years” unless objects by no less of one third of the Member States (owning not less than 50% of the world gross tonnage). In addition port states may apply the “no more favorable treatment” procedure on ships of countries which are not party to relevant Conventions like SOLAS, MARPOL73/78 and STCW, to ensure that “equivalent surveys and inspections are conducted and an equivalent level of safety and protection of the marine environment is ensured.”

Looking into the SOLAS Convention in more detail, a number of themes are of interest within the framework of this report:

- SOLAS Chapter IX (Management for the Safe Operation of Ships) makes the International Safety Management (ISM) Code mandatory. It was incorporated by the 1994 amendments to SOLAS and introduces a safety oriented attitude and a safety culture, not only to seafarers but also on shore. The ISM Code was induced by several serious accidents in the late 1980’s involving human errors and management faults. The sinking of the Herald of Free Enterprise in 1987, causing a loss of 193 lives, an example as unfortunate as it is well-known.

Focus on management, procedures and documentation (including corrective action) are parts of the ISM Code as part of a ‘compliance umbrella’. The application of the ISM Code on board ships, at the owner/company, by flag state and enforced by PSC is therefore important. With regards to owner/company it should be noted that the (registered) owner is of less importance. In the ISM Code reference is made to the company as the entity “who has assumed the

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92 Ibid.
responsibility for operation of the ship...”\textsuperscript{98} It is this company that “should establish procedures to ensure that the ship is maintained in conformity with the provisions of the relevant rules and regulations... and corrective action is taken”.\textsuperscript{99}

- SOLAS Chapter XI-1 contains requirements relating to among others authorisation of ROs, PSC and investigation of marine casualties and incidents. ROs which carry out surveys and certification on behalf of the flag state must comply with specific guidelines.\textsuperscript{100} A ship which is in a port of another ‘Contracting Government’ is subject to PSC inspection by that Government.\textsuperscript{101} Each flag state (‘Administration’) is required to conduct investigation of marine casualties and incidents in accordance with the Casualty Investigation Code.\textsuperscript{102}

\subsection{2.2.3 IMO Resolutions and Circulars}

Member States attending one of the IMO meetings regularly adopt Resolutions and Circulars, containing Codes and details and/or changes of Conventions, which are binding for Member States. During the 24\textsuperscript{th} IMO Assembly meeting the “IMO Instrument Implementation Code” was adopted\textsuperscript{103}, it refers to UNCLOS 1982 and states that Member States are responsible for regulations which ensure that ships are fit related to safety of life at sea and protection of the marine environment. The following IMO instruments are mandatory: SOLAS, MARPOL, Load Line, TONNAGE\textsuperscript{104} and COLREG, as well as all instruments made mandatory through these conventions and protocols.\textsuperscript{105} During the same Assembly meeting\textsuperscript{106} the ‘Framework and Procedures for the Voluntary IMO member State Audit Scheme (VIMSAS)’ was adopted.\textsuperscript{107} IMO Conventions are regularly updated by means of IMO resolutions and circulars through the Maritime Safety Committee (MSC) and Marine Environment Protection Committee (MEPC).

\footnotesize{\textsuperscript{98} ISM Code, art. 1.1.2. See \textit{supra} note 96.}  
\footnotesize{\textsuperscript{99} ISM Code, art. 10.}  
\footnotesize{\textsuperscript{100} SOLAS, Chapter XI-1, art. 1. See \textit{supra} note 25, \textit{infra} section 2.7.}  
\footnotesize{\textsuperscript{101} SOLAS, Chapter XI-1, art. 4. See \textit{infra} section 2.8.}  
\footnotesize{\textsuperscript{102} IMO. (2008). \textit{Investigation into a Marine Casualty or Marine Incident}. Maritime Safety Committee resolution MSC.255(84). Retrieved from \url{https://docs.imo.org/} }  
\footnotesize{\textsuperscript{103} III Code. See \textit{supra} note 17.}  
\footnotesize{\textsuperscript{105} III Code, Annex, art. 6. See \textit{supra} note 17.}  
\footnotesize{\textsuperscript{107} IMO (2005), \textit{Framework and Procedures for the Voluntary IMO member State Audit Scheme (VIMSAS)}, Assembly Resolution A.974(24), adopted on 1 December 2005. See also \textit{infra} subsection 2.2.6.}
During the 28th IMO Assembly meeting the Strategic plan 2014-2019 and High level Action Plan were adopted. In the strategic plan is stated that maritime safety needs to be enhanced ‘by ensuring that each link in the chain of responsibility fully meets its obligations is a priority for the maritime community as a whole’. In the High Level Plan e.g. flags and port are kept under review and are supported on implementation for enhancing and monitoring compliance.

2.2.4 Relationship between IMO and UNCLOS

As described in section 2.1 (UNCLOS) and subsections 2.2.1 and 2.2.2 (IMO) regular references from the UNCLOS - also referred to as Law of the Sea Convention (LOSC)- to IMO conventions and vice versa are made, indicating the relationship. The table underneath is an example of this relationship.

Table 1. Relationship between the LOSC (UNCLOS) requirements and IMO instruments

<table>
<thead>
<tr>
<th>LOSC Article</th>
<th>Requirement</th>
<th>Instrument</th>
<th>Org.</th>
</tr>
</thead>
<tbody>
<tr>
<td>94.3 (c)</td>
<td>Use of signals</td>
<td>SOLAS</td>
<td>IMO</td>
</tr>
<tr>
<td>94.3 (c)</td>
<td>Prevention of collision</td>
<td>SOLAS</td>
<td>IMO</td>
</tr>
<tr>
<td>94.3 (c)</td>
<td>Maintenance of communication</td>
<td>SOLAS</td>
<td>IMO</td>
</tr>
<tr>
<td>94.3 (b)</td>
<td>Manning of ships</td>
<td>SOLAS</td>
<td>IMO</td>
</tr>
<tr>
<td>94.3 (b)</td>
<td>Labour conditions</td>
<td>Various</td>
<td>ILO</td>
</tr>
<tr>
<td>94.3 (b)</td>
<td>Training of crew</td>
<td>STCW</td>
<td>IMO</td>
</tr>
<tr>
<td>94.3 (a)</td>
<td>Construction, Equipment and Seaworthiness</td>
<td>SOLAS, LOAD LINE</td>
<td></td>
</tr>
<tr>
<td>94.4 (a)</td>
<td>Survey before registration*</td>
<td>SOLAS</td>
<td>IMO</td>
</tr>
<tr>
<td></td>
<td>Survey at regular intervals</td>
<td>SOLAS</td>
<td>IMO</td>
</tr>
<tr>
<td></td>
<td>Charts, nautical publications, navigational equipment and instruments</td>
<td>SOLAS</td>
<td>IMO</td>
</tr>
<tr>
<td>94.4 (b)</td>
<td>Qualified master and officers</td>
<td>STCW</td>
<td>IMO</td>
</tr>
<tr>
<td></td>
<td>Appropriate number of qualified crew</td>
<td>SOLAS</td>
<td>IMO</td>
</tr>
<tr>
<td>94.4 (c)</td>
<td>Crew who know and observe applicable instruments</td>
<td>SOLAS, STCW</td>
<td>IMO</td>
</tr>
<tr>
<td>94.6</td>
<td>Response to Port State Control</td>
<td>SOLAS, MARPOL, STCW</td>
<td>IMO</td>
</tr>
<tr>
<td>94.7</td>
<td>Accident Investigation</td>
<td>SOLAS, MARPOL</td>
<td>IMO</td>
</tr>
</tbody>
</table>

Source: (J. N. Mansell, 2009)

110 Ibid, action 5.3.1.
For an extensive, detailed and more recent overview of relationship between UNCLOS and IMO instruments see the study of the IMO secretariat.112

During the IMO Subcommittee meetings (FSI/III) an update is provided by the IMO secretariat, for example of IMO members being Parties to UNCLOS.113

2.2.5 Flag State Implementation and Implementation of IMO Instruments Sub-Committees
The Flag State Implementation (FSI) Sub-Committee was one of the IMO Sub-Committees. Since 1992 FSI assists Administrations in implementation and enforcing IMO instruments, port and flag matters, survey and certification, analyse casualty statistics and status of UNCLOS.114

The establishment of FSI followed the initiative of one of the former Secretary-Generals, Mr. William O’Neil, early 90’s to move more to implementation, rather than creating new regulations.115

The Implementation of IMO Instruments (III) Sub-Committee, also known as "triple I", has taken over from the Flag State Implementation (FSI) Sub-Committee.116

The IMO’s Secretary General Mr. Koji Sekimizu stated in his opening speech on the first III Sub-Committee meeting in 2014 that: "Flag State implementation remains a central issue. Promulgation of IMO rules is under the responsibility of Flag States; survey and certification with recognized organizations; and casualty investigation is an important function of Flag States, under UNCLOS and IMO conventions."117

During the first III Sub-Committee meeting, amongst other items, an analysis of consolidated IMO audit summary reports was discussed.

116 See supra section 2.2.1.
The Sub-Committee reviewed the analysis of consolidated audit summary reports (CASRs), based on the outcome of 59 audits under the IMO voluntary Member State Audit Scheme.\textsuperscript{118} The audits resulted in 550 findings (201 non-conformities and 349 observations) and 356 root causes reported by the audited Member States.\textsuperscript{119} The information presented covers audits of 52 Member States, which represent 92.8\% of the gross tonnage of the world fleet. An analysis of the root causes of deficiencies revealed that the main underlying causes, were linked to “absence/lack of procedure/process/mechanism, absence/lack of national provisions, insufficient resources, lack of coordination among various entities, and absence/lack of training programmes”.\textsuperscript{120} In the area of flag state most findings were found in the category of implementation (88 findings, 29.8\%), the main findings are related to “the issuance of guidance to assist in the implementation and enforcement of the requirements, and of administrative instructions to implement applicable international rules and regulations”.\textsuperscript{121} In relation to the delegation of authority, most of the findings are related to “the oversight programme of the flag state for ROs and the agreement between the Administration and the RO”.\textsuperscript{122}

2.2.6 (V)IMSAS and III Code

During several FSI Sub-Committee meetings, sessions starting from FSI 4 in 1996, guidelines for flag states were developed and adopted, including a Self-Assessment Form (SAF) at FSI 6, resulting in Assembly Resolution A.881(21).\textsuperscript{123} In 2003 at the 11\textsuperscript{th} FSI meeting a Voluntary Flag State audit scheme was introduced, to provide an assessment on the flag states implementation of IMO technical treaties.\textsuperscript{124} Efforts to make this audit scheme mandatory continued and at the 26\textsuperscript{th} IMO Assembly in 2009 a time frame and schedule for the consideration and introduction of an institutionalised IMO Member State audit Schema was approved.\textsuperscript{125}

\textsuperscript{120}Ibid.
\textsuperscript{122}Ibid, item 24.
\textsuperscript{124}Ibid, p.143.

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At the 28th Assembly meeting of 2013 finally the IMO Member State Audit Scheme (IMSAS) was adopted, including the Framework and Procedures for the IMO Member State Audit Scheme (IMSAS) and IMO Instruments Implementation Code (III Code). This means that audits are to be carried out using the III Code as the audit standard. Related to the IMSAS and the III Code a “non-exhaustive list of obligations under instruments to the IMO Instruments Implementation Code” was adopted.

The IMSAS entered into force on January 1st 2016 and required amendment to related IMO Conventions, in short: SOLAS, MARPOL, STCW, LL, Tonnage and COLREG. These amendments to these conventions were made through the appropriate Body and Committees (Assembly, MSC and MEPC).

The audit scheme is covering the implementation and enforcement of laws and regulations by the Member State, the delegation of authority to ROs and the survey and certification procedures by the Member States.

2.3 The ILO perspective

The International Labour Organisation has maintained and developed a system of international labour standards aimed at promoting opportunities for women and men to obtain decent and productive work, which is also applicable to merchant shipping.

128 III Code. See also supra note 17.
2.3.1 ILO: an introduction

ILO was founded in 1919, and became the first specialised agency of the UN in 1946. The tripartite structure of the ILO enables equal voices to workers, employers and governments and establish that the perspectives of the social partners are taken into account in labour standards and policies and programmes are created. ILO has agreed on a number of Conventions applicable to shipping such as, No. 134, No. 147 and No. 180, which were all superseded by the Maritime Labour Convention (MLC).

2.3.2 Maritime Labour Convention (MLC), 2006

The MLC, 2006 is widely recognised as the fourth pillar of the international regulatory regime in shipping, with three other key conventions adopted by IMO: SOLAS, MARPOL and STCW. The main purpose of the MLC is to provide good working conditions for seafarers and to secure the economic interests of quality ship owners by means of fair competition (or level playing field).

The Regulations and the Code are organised into general areas under five Titles:

Title 1: “Minimum requirements for seafarers to work on a ship”
Title 2: “Conditions of employment”
Title 3: “Accommodation, recreational facilities, food and catering”
Title 4: “Health protection, medical care, welfare and social security protection”
Title 5: “Compliance and enforcement”

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135 Ibid.
2.3.3 Flag state

MLC Title 5 contains provisions for the flag state. Each Member, i.e. the flag state, has to implement the MLC on its own flag ships, establish a system of inspection and certification (which may be delegated to a RO) and issue a Maritime Labour Certificate (being a *prima facie* evidence that the ship complies with the MLC requirements). Each Member State also requires that every ship has on-board procedures for handling seafarers’ complaints and hold an official inquiry into any serious marine casualty (i.e. leading to injury or loss of life). Mc. Connell (2011) suggests that the MLC may achieve “decent work” and “level-playing field” and might address the problem of a lack of “genuine link” between ships and flag.

2.3.4 Enforcement

The MLC Title 5 contains also provisions for the port states, which have to cooperate internationally in order to implement and enforce the MLC regulations on foreign flag ships. Compliance with the requirements of the MLC (in relation with working and living conditions of the seafarer) is reviewed and facilitation is provided when a complaint by seafarers is reported. Enforcement inspections are incorporated in the PSC inspections on IMO conventions.

2.4 The European Union perspective

The coastline of the European Union (EU) is many thousands of kilometres in length and holds over 1,000 ports. Together they handle up to 90% of EU external trade and around 40% of the trade between EU countries. Each year an amount of 3.5 billion tonnes of cargo is handled and 350 million passengers are being transported.

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141 MLC 2006, art. 5.1.1. See *supra* note 139.
142 MLC 2006, art. 5.1.5.
143 MLC 2006, art. 5.1.6.
145 MLC 2006, art. 5.2.
The EU is to a large extent dependent on reliable, cost effective and safe shipping services.\textsuperscript{147} Its maritime transport policy must therefore ensure that such services are undertaken at a minimum level of risk for all concerned, either directly or indirectly, and for the marine environment.\textsuperscript{148}

In the past maritime incidents occurred in European waters on a regular basis, often with a large impact on the marine environment, with notorious \textit{Amoco Cadiz} (1978)\textsuperscript{149}, \textit{Herald of Free Enterprise} (1987)\textsuperscript{150}, \textit{Aegean Sea} (1992)\textsuperscript{151} and \textit{Brear} (1993)\textsuperscript{152}. Incidents that led the European Commission to issue the action plan \textit{A common policy on safe seas}, which was based on four principles: implementation of existing international rules, uniform enforcement of these rules, development of navigational aid and traffic surveillance infrastructure and finally an increase in the role of the EU in the field of global rule making.\textsuperscript{153} Van Leeuwen (2015) concluded that the dissatisfaction with the ambition level of the IMO and the lack of effective implementation and enforcement of IMO standards was the driver for regional initiatives, which include the development of the European Union shipping policy domain and the adoption of the Paris MoU\textsuperscript{154}.

Between 1993 and 2002 the EU Council adopted several Directives with the aim to ensure implementation of safety rules for all ships calling at EU ports and that ships under a flag of an EU member comply with international rules. With respect to enforcement and harmonising procedures in inspections and detentions in EU ports the Port State Control Directive was adopted.\textsuperscript{155}

Another unfortunate incident occurred in 1994 with the loss of the “Estonia”.\textsuperscript{156} The incidents with ro-ro ferries raised concern about the operational conditions of passenger vessels. As a

\textsuperscript{148} Ibid.
\textsuperscript{149} Run aground on the coast of France, 227,000 tons of crude oil spilled.
\textsuperscript{150} Ro-Ro ferry, Capsized near Zeebrugge, 193 passengers and crew were killed.
\textsuperscript{151} Run aground at the Spanish coast, 67,000 tons of crude oil spilled.
\textsuperscript{152} Run aground at Scotland, 85,000 tons of crude oil spilled.
\textsuperscript{156} Ro-Ro ferry, Sunk in the Baltic Sea, 852 lives were lost.
result the ISM code was applied earlier to ro-ro passenger ships in the EU\textsuperscript{157} and the establishment of a mandatory survey on passenger vessels (regardless of the flag) performing regular service runs between EU ports\textsuperscript{158}.

The sinking of the tanker “Erika” in 1999\textsuperscript{159} was the motive for the EU Commission to propose further measures, known as the “Erika I package”. The existing PSC directive was amended and introduced expanded inspections and refusal of access to EU ports.\textsuperscript{160} At the same time regulations on phasing out single hull tankers (with a timetable) was adopted.\textsuperscript{161}

Next, the EU Commission adopted the “Erika II” package, including the establishment of the European Maritime Safety Agency (EMSA) in 2002.\textsuperscript{162} EMSA assists the EU Commission, assists the EU Member States and enforces directives and regulations at Member States and RO on behalf of the EU Commission. The scope and responsibilities of EMSA has been amended over the following years and include implementation tasks (e.g. places of refuge, port state control, environment and accident investigation) as well as operational tasks such as vessel reporting and pollution response services.\textsuperscript{163}

The incident with the “Prestige” in 2002\textsuperscript{164} was the trigger to adopt the “third maritime safety package”. No fewer than 7 directives and regulations were adopted, which include: Port State control\textsuperscript{165}, flag state obligations\textsuperscript{166}, accident investigations\textsuperscript{167} and classification societies\textsuperscript{168}.


\textsuperscript{159} Run aground of the coast or France, 20,000 tons of heavy fuel oil cargo was lost.


\textsuperscript{164} Sunk of the coast of Spain, after refusal of access to a safe haven. 11,000 tons of crude oil was spilled.


\textsuperscript{166} Directive 2009/21/EC. See also supra note 18.


addition was the opening of EMSA taken 6 months forward and the timetable detailing the phasing out of single hull tankers was shortened.

EMSA also hosts the database\textsuperscript{169} for PSC inspections carried out in the EU and the Paris MoU region.

### 2.5 Responsibilities of the flag state

The flag state responsibilities from a global and regional perspective are summarised here:

As described in paragraph 2.1 the flag state, under \textit{UNCLOS}, has a responsibility for the safety of the ships flying its Flag.\textsuperscript{170}

Further details are stipulated in the \textit{IMO} III Code- part 2, as flag states should recognise classification societies\textsuperscript{171}, have an audit and inspection programme (independent of the RO), issue the required certificates, conduct investigation into casualties and make sure that its vessels are properly manned.\textsuperscript{172} When a flag state authorises a RO to act on its behalf, it should regulate such authorisation.\textsuperscript{173} Flag states should e.g. ensure compliance with international regulation, which may include detention (i.e. prohibiting to proceed to sea)\textsuperscript{174} and take corrective actions if a ship flying its flag is detained by a port state\textsuperscript{175}. Finally flag states should establish a control and monitoring programme concerning casualty investigation, trend analysis based on statistical information and reply to reported deficiencies and supposed pollution.\textsuperscript{176}

The \textit{ILO} provides through the MLC, 2006 regulations on compliance and enforcement by flag states and port states on working conditions for seafarers.

The \textit{EU} flag state directive \textsuperscript{177} requires EU flag states to oversee that a ship that flies their flag which has been detained by a port state is brought into compliance with the relevant \textit{IMO}

\begin{itemize}
  \item \textsuperscript{169} \textit{THETIS}.
  \item \textsuperscript{170} UNCLOS 1982, art. 14. See \textit{supra} note 4.
  \item \textsuperscript{171} See \textit{infra} section 2.6.
  \item \textsuperscript{172} III Code. See \textit{supra} note 17.
  \item \textsuperscript{173} See \textit{infra} section 2.7.
  \item \textsuperscript{174} III Code, art. 22.1. See \textit{supra} note 17.
  \item \textsuperscript{175} \textit{Ibid}, article 25.
  \item \textsuperscript{176} \textit{Ibid}, article 23.
  \item \textsuperscript{177} Directive 2009/21/EC. See \textit{supra} note 18.
\end{itemize}
Conventions\textsuperscript{178}, have IMO audits at least every seven years\textsuperscript{179} and have a Quality management system and internal evaluation\textsuperscript{180}. The IMO audit has to comply with the III Code.\textsuperscript{181}

\section*{2.6 Responsibilities of classification societies}

Seen from a historical point of view classification societies was initiated from the need of the ship owner to prove to ship insuring institutes that the vessel was up to standard.\textsuperscript{182} The first Classification Society (CS) was Lloyds, a coffee house in London and a meeting place for merchants and underwriters.\textsuperscript{183} The class was considered to be an independent third party. CS’s issue certificates for “hull” and “machinery”, after surveys which verify that the ships complies with the Class Rules. These certificates are accepted by the flag state.\textsuperscript{184} It is not compulsory for a ship owner to enter his ship at a CS\textsuperscript{185}, even though it has to comply with the “structural, mechanical and electrical requirements of a CS”\textsuperscript{186}. At the same time ships under EU Flag must be designed, constructed, equipped and maintained in accordance with the rules and procedures of a RO (relating to hull, machinery and electrical and control installation requirements).\textsuperscript{187} Insurers and charterers require that the ship is certified under class, usually under the highest rules i.e. highest class.\textsuperscript{188} Class rules apply during the process of plan approval, new building and when the ship is sailing. CS’s are paid fees by the ship owner for their ship to be classified, while providing this service results in a commercial relationship. Classification (including issuing certificates of class) can be regarded as a private role of class.\textsuperscript{189}

\begin{itemize}
  \item \textsuperscript{178} Ibid, art. 5.
  \item \textsuperscript{179} Ibid, art. 7.
  \item \textsuperscript{180} Ibid, art. 8.
  \item \textsuperscript{181} See infra subsection 2.2.6.
  \item \textsuperscript{183} Edward Lloyd established a coffee house in Tower Street, London, in 1689.
  \item \textsuperscript{186} SOLAS 2005 amendment, Chapter II-1, art. 3.1.
  \item \textsuperscript{187} Directive 2009/15/EC, art.11. See supra note 168.
  \item \textsuperscript{188} Z. Oya Özcayır (2001). \textit{Port state control}. London: LPP, p. 351.
\end{itemize}
Several CS’s joined the International Association of Classification Societies (IACS). It consists of 12 Members, which include Lloyds Register of Shipping (LR), American Bureau of Shipping (ABS), Bureau Veritas (BV) and Det Norske Veritas Germanischer Lloyd (DNVGL). Meeting on a regular basis, they decide on unified requirements and unified interpretations.

2.7 Responsibilities of Recognised Organisations

During the late nineteenth century, in addition to the private role, CS’s gradually got into a public role as well, when flag states started delegating statutory powers to class, because CS’s had shown to yield the required technical expertise. The practise of delegating the flag state tasks (including survey and certification) was codified by IMO through ”Guidelines for the Authorization of Organizations acting on behalf of the Administration”. According to this IMO resolution flag states are responsible for making sure that its vessels comply with the conventions, it may authorise organisations to act on their behalf, as well as develop uniform procedures and minimum standard for these ROs.

In 1995 the IMO Assembly adopted the resolution “Specifications on the survey and certification functions of recognized organizations acting on behalf of the Administration”. The possibility and responsibility of enforcement and the power to issue exemptions remain with the flag state only and cannot be delegated to a RO.

The IMO safety committee (MSC) and environmental committee (MPEC) adopted the Code for Recognised Organisations (RO Code) in 2013. By means of resolutions MEPC.238(65), MSC.350(92) and MSC.356(92) the Committees made parts 1 and 2 of the Code mandatory under MARPOL annexes I and II, SOLAS and the 1988 Load Line Protocol. The amendments

194 Ibid.
196 Ibid. SOLAS Chapter I, Regulation 6(a).
to these Conventions entered into force on 1 January 2015. The RO Code provides flag states with a standard for the assessment and authorisation of ROs, with a mechanism to have an oversight of the ROs and clarifies the responsibilities of the ROs. Part 2, mandatory part, of the RO Code, deals with recognition and authorisation requirements for organisations, while part 3 covering the Flag States’ supervision of the RO is not mandatory.

The IMO III Code also refers to the delegation of authority and requires that ROs have; adequate resources, a formal written agreement between flag state and RO about the authorisation, specific instructions when a ship is detained, appropriate instruments of national law and lastly maintain and provide records for the Administration. The flag state should have a programme to monitor its ROs, which include supplementary surveys related to international and national instruments and have a staff which has good knowledge of both Flag State and RO rules and regulations and can carry out effective oversight of the ROs.

Each Member state can decide which ROs are to be delegated to carry out surveys and certification on its behalf. For EU Member States additional requirements related to ROs apply: they may delegate ship inspections only to organisations (ROs) recognised in the EU. The Member State shall also verify that the RO is performing its task (e.g. surveys and inspection to relevant instruments) satisfactorily. Currently only 11 out of more than 50 CS’s are recognised by the EU. EMSA assesses the ROs on behalf of the European Commission (including visits to regional and local offices and ships) every 2 year period.

For EU Member States the (RO) Regulation “on common rules and standards for ship inspection and survey organisations” applies directly. According to the Regulation ROs need to be able to compete, while at the same time provide equal levels of safety and environmental protection. It requires that the ROs mutually recognise each other’s certificates and work on harmonisation of class rules and procedures.

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199 III Code, art. 28. See supra note 17.
200 Ibid, art. 20.
203 EU Regulations are addressed to EU Member states and are directly applicable, without the need for national legislation.
EMSA stated in its 5 year strategic plan that it is to develop a “risk-based” approach to the inspections of CS’s.\(^{205}\) Regulation (EC) No 391/2009 requires EU ROs to establish an independent quality assessment and certification entity (QACE) to inter alia assess and certify the quality management systems of the EU ROs. “This entity shall be periodically assessed by the Commission, and EMSA will provide the necessary technical assistance for this purpose.”

Next, and on top of the EU RO regulation a further regulation was added, the title clearly indicating the content: “laying down detailed rules for the imposition of fines and periodic penalty payments and the withdrawal of recognition of ship inspection and survey organisations pursuant to Articles 6 and 7 of Regulation (EC) No 391/2009”.\(^ {206}\)

Another issue, worthy as a research object by itself, is that of the liability of the classification societies. Generally speaking, class is ‘not an insurer who warrants the seaworthiness’ of ships, nor is the class certificate a warranty of seaworthiness. A ship owner has the responsibility for his ship, its maintenance and permanent control, which cannot be delegated to class.\(^ {207}\) The class can at best confirm that the vessel complies with its class rules and the relevant instruments on behalf of the flag state.

In the Council Directive “on ship inspection and survey organisations” the liability issue was incorporated.\(^ {208}\) It has been amended in conjunction with to the sinking of the “Erika”.\(^ {209}\) According to the latest directive 2009/15/EC, ROs can “be held liable for loss of or damage to property or personal injury or death if caused by a wilful act or omission or gross negligence of the RO”\(^ {210}\). The liability is limited to 4 million EUR if the personal injury or death is caused by negligent or reckless act or omission of the RO.\(^ {211}\) The liability is limited to 2 million EUR to compensate the injured parties for loss of or damage to property, if caused by negligent or reckless act or omission of the RO.\(^ {212}\)

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\(^{209}\) Directives 97/58/EC, 2001/105/EC and 2002/84/EC.

\(^{210}\) For full text see: Directive 2009/15, art. 5. See *supra* note 168.

\(^{211}\) *Ibid.*

\(^{212}\) *Ibid.*
2.8 Perspective from Port State Control

In an ideal (maritime) world, in which all actors take their responsibilities as required, enforcement of rules should not be necessary. Unfortunately economical and commercial considerations (for example caused by low freight rates) force some ship owners to cut costs, where classification societies suffer from competition and some flag states take their duties lightly. Thus a safety net system such as PSC (responsible for enforcement on foreign flag ships) is inevitable in order to help maintain the safety and proper working condition of persons on board and take care for the marine environment. Sub-standard shipping can perhaps not be made to disappear, but it can be reduced due to the efforts of PSC around the world. Nonetheless, the captain, ship-operator are primarily responsible for the safe, secure and clean shipping.

2.8.1 Introduction Port State Control

PSC signifies that states have jurisdiction on the presence of a vessel in port. Ports are part of the internal waters of a state, which entitles that state to enforce its laws against any ship.213 Member States have the right to inspect ships (berthing in one of their ports on a voluntary basis) related to safety and marine environment.214 This right of inspection is laid down in IMO conventions as well, for instance in SOLAS is stated that: “Every ship when in the port of another party is subject to control by officers duly authorised by such government …”.215 Whenever clear grounds exist “or believing that the condition of the ship or its equipment does not correspond substantially with the particulars of any of the certificates”216, or when a certificate has expired or a ship and its equipment are not maintained after a survey217, the authorities of a Port State “shall take steps to ensure that the ship shall not sail until it can proceed to sea or leave the port for the purpose of proceeding to an appropriate repair yard without danger to the ship or persons on board”.218

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215 SOLAS, art. I/19.
216 Ibid.
218 SOLAS, art. I/19.
IMO Conventions like MARPOL, Load Line and STCW contain similar articles. In the ILO MLC, 2006 Convention a separate section\(^{219}\) is dedicated to Port State Control, which include 14 areas of inspection, e.g.: qualifications of seafarers, hours of work or rest, manning levels for the ship, Health, Safety and Accident Prevention and on-board complaint procedures.

As explained the right to inspect a ship is laid down in various conventions. Consequently a Member State (which includes the port state) can only conduct enforcement (PSC) inspections on foreign-flagged ships on the Convention (subject) of which the Member State is a Party.\(^{220}\) Port states are obliged to accept the certificates issued by a flag state, or by a RO on its behalf, as *prima facie* evidence of compliance.\(^{221}\)

The IMO III Code contains a section on port states, covering implementation, enforcement and evaluation and review.\(^{222}\) When a Member State is exercising its right (i.e. not an obligation) to carry out PSC\(^{223}\), the programme should be consistent with the “Procedures for PSC, 2011”.\(^{224}\) This document provides guidance on the conduct of PSC inspections and application of control procedures. The PSC inspections should be carried out by qualified PSC Officers (PSCO), which should have no commercial interest in the port of inspection, or in the ships inspected, nor be employed by, or work on behalf of ROs.

Molenaar (2007) considers PSC as an important instrument with regard to preventing marine pollution, which is gradually moving from voluntarily towards mandatory on regional level.\(^{225}\) The effect of PSC has been a research topic for a number of studies. Cariou et al (2007) concluded after analysing 874 repeated inspections that following a PSC inspection, the reported deficiencies during next inspection were reduced by 63%.\(^{226}\) Another research (Knapp, 2007) investigated the effect of inspections by PSC on the probability of casualty and one of the findings was that for a vessel under inspection in one of the PSC regimes, the probability of having a very serious casualty decreases gradually as the number of inspections

\[^{219}\text{MLC 2006, Title 5 enforcement. See supra note 139.}\]
\[^{220}\text{Control (PSC) provisions can be found in for instance in SOLAS, Ch. 1, art. 19.}\]
\[^{221}\text{Ibid.}\]
\[^{222}\text{III Code, part 4. See supra note 17.}\]
\[^{223}\text{Ibid, article 56 and 60.}\]
\[^{224}\text{IMO. (2011). *Procedures for Port State Control, 2011*. Assembly Resolution A.1052(27), adopted 4\text{ December 2013. Retrieved from https://docs.imo.org/ This Resolution revokes resolutions A.787(19) and\text{ A.882(21).}\}
increases. Yet another conclusion is that about 43% of the vessels can be identified to belong to a group where inspections are effective in decreasing the probability of casualty where this effect is strongest for very serious casualties and estimated -depending on the basic ship risk profile- to be a 5% decrease per inspection.

2.8.2 Paris Memorandum of Understanding

Port states in Europe began harmonising their PSC inspections; this led to the “The Hague Memorandum’ in 1978, which was developed by eight maritime authorities in Western Europe and enforced mainly shipboard living and working conditions as required by ILO Convention No. 147. Prior to the entry into effect of the memorandum the disaster of the ‘Amoco Cadiz’ resulted in political and public pressure for a more stringent enforcement of regulations. The original scope was extended with safety of lives at sea and prevention of pollution by ships. The amended memorandum was signed by fourteen European counties in Paris in 1982; the start of the ‘Paris Memorandum of Understanding’ (Paris MoU). The Paris MoU gradually expanded to twenty seven members, including Canada and Russian Federation, and covers the waters of the “European coastal States and the North Atlantic basin from North America to Europe”. The Paris MoU aims to harmonise PSC inspections in its region by agreeing on commitments and the relevant international conventions, inspection procedures, exchange of information including a common database and the structure of the organisation and amendment procedures. The mission of the Paris MoU is to eliminate the operation of sub-standard ships, while emphasizing that “the prime responsibility for compliance with the requirements laid down in the international maritime conventions lies with the ship owner/operator and that responsibility for ensuring such compliance remains with the flag state”.


228 Ibid.


231 Ibid. Paris MoU Members: Belgium, Bulgaria, Canada, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, the Netherlands, Norway, Poland, Portugal, Romania, the Russian Federation, Slovenia, Spain, Sweden and the United Kingdom.

232 For a map of the Paris MoU see appendix 1. The USA is not part of the Paris MoU. See also infra subsection 2.8.4


It should be noted that PSC inspections are unannounced, in contrast to flag state inspections. The PSC inspection is a general overall inspection including random areas, in contrast with flag state or RO in depth surveys (depth depending on type of survey; annual, intermediate of renewal), covering detailed areas related to the appropriate certificate/Convention. Further details on commitments, ship risk profile and inspection and selection scheme are laid down in the Memorandum, including the 38th Amendment, adopted 22 May 2015 (effective date: 1 July 2015). It also states that: “when exercising PSC control the Authorities will make all possible efforts to avoid unduly detaining or delaying a ship”.

The targeting and selection system in the Paris MoU changed on the 1 of January 2011, as part of the New Inspection Regime (NIR). The new Ship Risk Profile (SRP) contains both generic factors (like ship type, age, flag performance and company performance) and historic parameters (deficiencies and detentions). The company performance takes into account the performance of other ships related to detentions and (ISM) deficiencies- of the same company - i.e. the ISM operator- in a 36 month period. The SRP, either High, Standard or Low will determine the inspection type and interval, which ranges respectively 24-36, 10-12 and 5-6 months. The NIR gives an incentive to good low risk ships and a stronger focus -including expanded inspection- on high risk ships. The flag performance is calculated every year based on a 3-year period, taking into account the number of inspections and detentions. A so-called Excess Factor (EF) is calculated to allow for a relative ranking of the flag states’ performances, which are recorded in the “white-grey-and black list” as published in the Paris MoU annual report. The excess factor is only meant as indicative of the distance from the threshold to the next category.

Ships which are detained or banned (i.e. refusal of access) are listed on the Paris MoU website. This will have a ‘naming and shaming’ effect, which may prevent future detentions and bannings as the lists are publically available and can be taken into account by charterers. The mission of the Paris MoU to eliminate sub-standard shipping may seem ambitious and Payoyo

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237 For more information on SRP and inspection types see Annex 7, 8 and 9 of the Paris MoU Memorandum. See supra note 235.

(2008) concluded that PSC inspections revealed that the number of sub-standard ships had shown an increase, although it should be noted that the Paris MoU also has achieved much; identification of sub-standard ships as a driver for new strategies, successful enforcement of international conventions, regional cooperation allowing efficient use of resources and better cooperation of MoU states, including expansion of the Paris MoU region. Having stated that the average detention percentage has decreased since 2008 to an all-time low in 2014.

2.8.3 EU PSC Directive

The Paris MoU is a memorandum which is a multilateral agreement between parties without legal commitment and can be compared to a formal gentlemens agreement. A MoU is not a convention, which is a more powerful tool from an international legal point of view. Still, a MoU was preferred as Conventions require lengthy ratification and amendment procedures.

Triggered by multiple maritime incidents and followed by the action plan of the European Commission (“A common policy on safe seas”), PSC became mandatory for EU members on the 1st of July 1996. The PSC Directive 95/21/EC has been amended and three implementation regulations were applied to cover changes like enforcement of the MLC 2006, flag state criteria and company performance. The (managing) company/ISM operator is responsible for maintaining the condition of the ship and its equipment (after a survey) to comply with the requirements of the Conventions.

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242 Ibid, p.117.
243 See supra section 2.4.
244 Directive 95/21/EC. See supra note 155.
247 See supra subsection 2.8.2.
2.8.4 Other Memoranda of Understanding and United State Coast Guard

The Paris MoU has set an example for other regions worldwide to arrange (near) similar PSC MoU agreements. These were in order: Vin˜a del Mar Agreement\(^{249}\), Tokyo MoU\(^{250}\), Caribbean MoU\(^{251}\), Mediterranean MoU\(^{252}\), Abudja MoU\(^{253}\), Indian Ocean MoU\(^{254}\), Black Sea MoU\(^{255}\) and Riyadh MoU\(^{256}\).

The USA do not have an agreement or MoU dedicated to PSC, instead the US exercises its enforcement through the ‘foreign vessel boarding programme’, which is carried out by the United State Coast Guard (USCG).\(^{257}\) Nonetheless inspection results are shared.\(^{258}\) The USCG initiated a “QUALSHIP 21 programme” to identify high quality ships, which – among others – requires a detention rate of less than 1%, no detentions in the USA and offers a reduced inspection programme as an incentive.\(^{259}\)

Reports of the MoUs and the USCG, including results of Concentrated Inspection Campaigns (CIC) are discussed at the IMO III sub-committee meetings.\(^{260}\)

In a study by Bang et al (2012) the different MoUs were compared with a focus on their operational strengths and weaknesses.\(^{261}\) The Paris and Tokyo MoU are considered the most successful MoUs. The MoU texts of other MoUs are nearly identical, however in some regions infrastructure, technology and financial capacity are lacking, which is necessary for an effective operation of the MoU. The variation between MoUs is considered to be a problem; sub-standard ships will “region hop”. The advanced MoUs and IMO should assist other MoUs through exchange of information, technical assistance and training of inspectors.\(^{262}\)

\(^{250}\) Memorandum of Understanding on Port State Control in the Asia-Pacific Region (Tokyo MoU) (adopted 1 December 1993).
\(^{251}\) Memorandum of Understanding on Port State Control in the Caribbean Region (adopted 9 February 1996).
\(^{252}\) Memorandum of Understanding on Port State Control in the Mediterranean Region (adopted 11 July 1997).
\(^{253}\) Memorandum of Understanding on Port State Control for the West and Central African Region (adopted 5 June 1998).
\(^{254}\) Memorandum of Understanding on Port State Control for the Indian Ocean Region (adopted 22 October 1999).
\(^{255}\) Memorandum of Understanding on Port State Control in the Black Sea Region (adopted 7 April 2000).
\(^{256}\) Riyadh Memorandum of Understanding on Port State Control in the Gulf Region (adopted 30 June 2004).
\(^{258}\) See infra subsection 2.9.5.
\(^{260}\) Supra par. 2.2.5.
\(^{262}\) Ibid.
2.9 Other parties and systems related to safe shipping

Flag states, Classification Societies, ROs and PSC are parties which are primarily involved in the operation of a ship owner/operator and its ships. There are other parties involved in shipping operations as well, which may have influence on aspects of compliance with safety, working conditions and marine environment. These third parties include ship owner associations, labour unions, insurance and commercial inspection branches.

2.9.1 Ship owner and operator associations

Ship owners and operators are organised in national, regional and worldwide associations. The International Chamber of Shipping (ICS) is representing the global shipping industry. The ICS represents national ship owners associations from Asia, Europe and the Americas whose member shipping companies operate over 80% of the world's merchant tonnage. The aim of ICS is to promote the interests of ship owners and operators in all matters of shipping policy and ship operations and include; adherence to internationally adopted standards and procedures and “promote properly considered international regulation of shipping and oppose unilateral and regional action by governments”. The ICS promotes ratification of new IMO Convention by Member States “especially if there is a danger that the vacuum might be filled by unilateral or regional regulation”. On the field of PSC the ICS calls for harmonisation of PSC procedures such as Sulphur Emission Control Areas, Ballast Water Management and MLC 2006.

The ICS has a status as Non-Governmental Organisation (NGO) at the IMO and attends several committee meetings. The ICS submitted a paper to the subcommittee FSI 18 (2010) on the agenda item “responsibilities of governments and measures to encourage flag state compliance”, containing ICS guidelines on ISM in particular on maintenance of safety management systems and on the operation of a genuine safety culture.

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266 IMO FSI 18/INF 30.
The European Community Shipowners’ Associations (ECSA) is a regional partner of ICS and which also comprise national ship owners’ associations. The ECSA is representing the national ship owners’ associations of the EU and Norway (close to 99% of the EEA fleet or about 20% of the world fleet) and promote the interests of European.267

Other maritime associations also represent ship owners, managers, brokers, operators and agents e.g. Baltic and International Maritime Council (BIMCO) and more specific on special types of cargo: International Association of Dry Cargo Shipowners (INTERCARGO) and International Association of Independent Tanker Owners (INTERTANKO). The ICS works together with BIMCO, INTERCARGO and INTERTANKO and encompass the “Round Table of International Shipping Associations”, which aim is to maximise the benefit to members and to avoid costly and inefficient duplication of actions.268

BIMCO is emphasizing the importance of ratification of new Conventions, like the Hong Kong Convention regarding ship recycling, in order to avoid global inconsistency and opposes unilateral and regional initiatives.269

The strategic aim of INTERCARGO related to PSC inspections is to "support the MoU policies of rewarding (through fewer inspections) the owners and operators of vessels that perform highly during PSC inspections and to target/improve the below average stakeholders".

INTERTANKO developed a PSC feedback form, to record compliance with the IMO PSC inspector Code of Conduct and enabling electronic confidential feedback to the relevant MoU.270

These organisations submit mutual papers to the IMO (sub) committee e.g. about the lack of accession of key international maritime instruments; drawing attention to the problematic consequences of the lack of ratification on key Conventions and Protocols.271

2.9.2 Labour unions

The International Transport Workers' Federation (ITF) is an international trade union federation of transport workers' unions, which represent around 700 unions and over 4.5

271 IMO FSI 18/3/7.
million transport workers from some 150 countries. The ITF considers there should be a 'genuine link' between the real owner of a vessel and the flag and consider that there is no "genuine link" in the case of FoC registries. Some of these registers have poor safety and training standards, and sometimes, because of language differences, seafarers are not able to communicate effectively with each other, putting safety and the efficient operation of the ship at risk. Also many FOC ship owners recruit the cheapest labour available, pay minimal wages and reduce costs by lowering working and living standards. This does not help when the aim is to create a level-playing-field.

ICS and the ITF jointly encourage flag states to meet their international obligation to investigate and report on very serious casualties.

2.9.3 Insurance

In general, three types of insurance can be distinguished; for the ships hull, the cargo and the liability of the ship owner against maritime claims. Ship owners with a ship under EU flag are bound by the EU Directive ‘on the insurance of ship owners for maritime claims’, which requires that ship owners of ships flying its flag have an insurance to cover maritime claims subject to the limitation under the ‘1996 Convention’ (‘Convention on Limitation of Liability for Maritime Claims, as amended by the 1996 Protocol’). Specific liability law on Bunker Oil Pollution Damage, 1992 Civil Liability Convention, 1992 Fund Convention, Liability related to carriage of passengers and Hazardous and Noxious Substances Damage and is left outside the scope of this report.

The hull insurance is based on the hull inspections by the CS.

As for the liability (for e.g. collision damage) ship owners are usually sharing the risk through mutual underwriting associations like Protection and Indemnity Clubs (P&I). Ship owners are member and pay a premium (call). The clubs re-insure their risks on the insurance market, which is dominantly based in London. Examples of the associations are International Underwriting Association of London (IUA), International Group of P&I Clubs (IGPI) and

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274 Ibid.
277 Not into force, see http://www.imo.org/en/MediaCentre/HotTopics/Pages/HNS-2010.aspx.
278 See supra section 2.6.
International Union of Marine Insurance (IUMI). IUA recognises that insurance and reinsurance regulation is extending locally and concentrate globally and therefore monitors and responds to regulatory evolution. IGPI regularly submits papers to the IMO (sub) committee e.g. related to bulk cargo liquefaction, including modified test methods for bulk cargoes. It should be noted that P&I Clubs are motivated almost entirely by the interests of their Members; although assumed having a mutual interest shared with governments and others, P&I Clubs are in fact interested in minimising financial risk: improving safety is only one way they to achieve this.

2.9.4 Commercial inspections

Ships can also be inspected for commercial purposes, in order to verify if the ship is fit to carry cargo of the shipper of charterer. This is mainly the case in the tanker industry for oil and chemical tankers. Major vetting programs are Ship Inspection Report Programme (SIRE), Chemical Distribution Institute Marine (CDI-M) and Ship Vetting Information System (SVIS).

The SIRE program was introduced by the Oil Companies International Marine Forum (OCIMF) in 1993 and is a tanker risk assessment tool for charterers, ship operators, terminal operators and governments and focusses on tanker (oil, chemical, LNG, LPG) quality and cargo handling related to ship safety and pollution prevention.

CDI-M was founded by the chemical industry to improve the safety and quality performance of bulk liquid shipping and covers 600 ship owners with 3000 ships. The report database can be accessed by chemical companies as a tool for selecting a tanker for a charterer.

The SVIS is a system provided by ‘RightShip’ and aims to help customers to manage marine risk by identifying and exclude substandard ships. RightShip was created to enhance dry bulk safety and quality standards and make use of the vetting expertise of commodity companies. Vessel data is retrieved from various sources like IHS Maritime, PSC inspections.

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279 IUA. (2016). *What is the IUA?* Retrieved from [http://www.iua.co.uk/IUA_Member/About/IUA_Member/About_the_IUA/About_the_IUA_homepage.aspx?hkey=e86110b6-e04f-4c13-87b9-7ef2e6f71e09](http://www.iua.co.uk/IUA_Member/About/IUA_Member/About_the_IUA/About_the_IUA_homepage.aspx?hkey=e86110b6-e04f-4c13-87b9-7ef2e6f71e09).


and terminals. SVIS evaluates over 50 risk factors (including flag performance, class performance, the vessels casualty history and vessels age), which produces a risk rating on the vessel for the customer. BIMCO is making critical notes on the issue of transparency and access to the RightShip system in order to appeal vessel ratings, excessive cost of subscription to the Rightship Owners’ Site and the fact that Rightship vetting is mainly a desktop exercise, whereby the method is only partly accessible to owners.

The **Green Award** Foundation is a neutral, independent foundation, which certification scheme is available for oil tankers, chemical tankers and dry bulk carriers from 20,000 DWT and upwards, LNG and container carriers. The certification procedure consists of an office and an ship audit. Green Award wants to create economic advantages for safe and quality shipping, with the effect of less incidents and accidents. Vessels with a Green Award certificate receive a considerable reduction on port dues in several ports, like those in Belgium, Portugal and the Netherlands.

The **Clean Shipping Index** was developed in 2010 as part of the Clean Shipping Project and is a tool which is used by international cargo owners to evaluate the environmental performance of ships based on performances in different areas like Carbon Dioxide (CO2), Nitrogen Oxides (NOx), Sulphur Oxides (SOx), particulate matter (PM) and discharge of sewage and ballast water. Wuisan, et al (2012), consider the project as a welcome initiative because existing IMO environmental regulations are not sufficient, ambitious standards are inadequate, it may take a long time before new regulations are adopted and fully implemented and finally enforcement of regulations will continue to be a problem considering there are no encouragements for shipping companies to invest in best possible techniques and environmental management.

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286 Ibid.  
289 Ibid.  
2.9.5 Other information systems

As a reply on to the main conclusions of the Quality Shipping Conference in Lisbon in June 1998 (lack of transparency in the information regarding the quality of ships and their operators), the European Commission and the French Maritime Administration developed an information system by means of assembling existing safety-related information on ships and making it available on the internet; European Quality Shipping Information System (EQUASIS). The current version of the Equasis database has been populated with data supplied by a total of 47 providers (50 types of data). The category of providers currently involved with Equasis are the following: Core Data Providers (Ships’ and companies' characteristics), PSC Regimes (including Paris MoU, USCG and 4 other MoUs), CS’s, P&I clubs and Insurance companies, Intergovernmental Organisations, National/EU Agencies – like EMSA, IMO, ILO and ITF- and private companies such as CDI, INTERCARGO and INTERTANKO.

The IMO Global Integrated Ship Information System (GISIS) aims at facilitating Member States’ compliance with reporting requirements, examples are marine casualties and incidents, ship particulars and ROs.

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293 Ibid.
3. Supervision and monitoring by various flag states

In this chapter a selection of European flag states is compared in the way these flag states deal with monitoring and supervision towards ships, shipping companies and ROs. In particular, consideration is given to the flag states’ audit and inspection (enforcement) programme.

In the first paragraph an introduction and a selection of EU flag states is made. The resulting shortlist (3.1.7) of EU flag states (Belgium, Denmark, Malta, the Netherlands and the United Kingdom) is explained in the following paragraphs, one for each flag state.

3.1 Introduction and selection

Pragmatic reasoning has caused the scope of this report to be limited to a selection of European flag states.

The selection follows the combination of various categories:

1) PSC performance
2) Detention and deficiency areas including International Safety Management (ISM)
3) Maritime accidents and pollution of the marine environment
4) Number of ships
5) Age and (risk)type of ships
6) Compliance with EU regulations

In the following paragraphs these factors are further explored and combined in paragraph 3.1.7, resulting in a short list of EU flag states.
3.1.1 Port State Control performance

PSC performance of flag states based on inspections carried out in the Paris MoU region has been analysed. Based on the annual reports of Paris MoU the number of inspections, detentions and relative ranking (performance list) of EU flag states have been compared over a period of 5 years, from 2010 to 2014 inclusive\(^\text{295 296}\). Three sub-categories of EU flag states have been identified (based on the annual Paris MoU report, including the white, grey and black flag performance lists):

A) continuous good performance (based on the position on the white list). This category has been sub-divided as follows: A1, top 10 white list and A2, top 10-25 white list.

B) Previous (2010) good performance and more recent (2014) (relative) poorer performance (taking the EF and Ranking into account)\(^\text{297}\).

C) Previous (2010) (relative) poor performance and more recent (2014) good (better) performance (taking the EF and Ranking into account).

For each sub category it is interesting to look into the flag state’s supervision programme to see as to how the flag state is maintaining the good position (A or C) or re-instates this good position (B).

Based on the above and Appendix II the following table is formed\(^\text{298}\):

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\(^{295}\) See appendix II.

\(^{296}\) The normative listing of flags provides an independent categorization that has been prepared on the basis of Paris MoU port State inspection results over a 3-year period, based on binomial calculus (www.parismou.org).

\(^{297}\) For an explanation of normative listing of Flag States, including the Excess Factor see Paris MoU annual report e.g., www.parismou.org/sites/default/files/2014 Annual Report on Port State Control v3.pdf, p.59. See also supra subsection 2.8.2.

\(^{298}\) Roemenia is not listed in the Paris MoU annual reports (number of inspections too low).
Table 2: PSC performance category

<table>
<thead>
<tr>
<th>MS</th>
<th>1) PSC performance category</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEL</td>
<td>A2</td>
</tr>
<tr>
<td>BUL</td>
<td>-</td>
</tr>
<tr>
<td>CRO</td>
<td>-</td>
</tr>
<tr>
<td>CYP</td>
<td>-</td>
</tr>
<tr>
<td>DEN</td>
<td>A1</td>
</tr>
<tr>
<td>EST</td>
<td>-</td>
</tr>
<tr>
<td>FIN</td>
<td>A2</td>
</tr>
<tr>
<td>FRA</td>
<td>A1</td>
</tr>
<tr>
<td>GER</td>
<td>B</td>
</tr>
<tr>
<td>GRE</td>
<td>B</td>
</tr>
<tr>
<td>IER</td>
<td>B</td>
</tr>
<tr>
<td>IT</td>
<td>A1</td>
</tr>
<tr>
<td>LAT</td>
<td>-</td>
</tr>
<tr>
<td>LIT</td>
<td>-</td>
</tr>
<tr>
<td>LUX</td>
<td>-</td>
</tr>
<tr>
<td>MLT</td>
<td>A2</td>
</tr>
<tr>
<td>NL</td>
<td>B</td>
</tr>
<tr>
<td>NOR</td>
<td>C</td>
</tr>
<tr>
<td>POL</td>
<td>-</td>
</tr>
<tr>
<td>PORT</td>
<td>-</td>
</tr>
<tr>
<td>SPA</td>
<td>-</td>
</tr>
<tr>
<td>SWE</td>
<td>A1</td>
</tr>
<tr>
<td>UK</td>
<td>A1</td>
</tr>
</tbody>
</table>

**Explanation:**
- A1: Continuous (2010-2014) good performance, top 10 white list.
- A2: Continuous (2010-2014) good performance, top 10-25 white list.
- -: Not further ranked specified due to worse ranking (lower than top 20 white list).

Source: Paris MoU annual reports 299, own processing.

### 3.1.2 Detention and deficiency areas, including ISM

The Paris MoU “white, grey and black list” is taking the number of detentions related to the number of PSC inspections into account. If a vessel is detained it could be detained for one or more than one detainable items (the difference is not shown in the BGW list; a detention counts as one, irrespective of the number of detainable deficiencies). It is interesting to look deeper into the detention and deficiency areas, especially into ISM deficiencies. The focus area of ISM

---

relates to the proper implementation of International Safety Management on board, or the
lacking if it. ISM can be regarded as the ‘umbrella’ of regulations and its application on board
in conjunction with the company/ship operator.\textsuperscript{300} As shown in de PMoU annual reports of
2012, 2013 and 2014, the top 5 deficiency category list shows ISM on top of the list, for
example in 2014 3.92\% of the deficiencies was related to ISM.\textsuperscript{301}

Looking further at the ISM deficiencies, the average percentage of ISM deficiencies related to
the total number of deficiencies on EU Flag ships in 2012 up to 2014 is 3.6\%. In addition for
each EU flag state the ratio of ISM deficiencies (related to the total number of deficiencies of
that flag) is calculated and compared with the average percentage of all EU flag states. See the
table below.

\textsuperscript{300} See \textit{supra} subsection 2.2.2.
Table 3: ISM deficiencies on 3 year period 2012-2014

<table>
<thead>
<tr>
<th>MS</th>
<th>Total def</th>
<th>ISM def.</th>
<th>% ISM def.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEL</td>
<td>413</td>
<td>15</td>
<td>3.6%</td>
</tr>
<tr>
<td>BUL</td>
<td>162</td>
<td>4</td>
<td>2.3%</td>
</tr>
<tr>
<td>CRO</td>
<td>315</td>
<td>18</td>
<td>5.7%</td>
</tr>
<tr>
<td>CYP</td>
<td>4,860</td>
<td>197</td>
<td>4.0%</td>
</tr>
<tr>
<td>DEN</td>
<td>1,560</td>
<td>47</td>
<td>3.0%</td>
</tr>
<tr>
<td>EST</td>
<td>52</td>
<td>3</td>
<td>5.8%</td>
</tr>
<tr>
<td>FIN</td>
<td>740</td>
<td>20</td>
<td>2.7%</td>
</tr>
<tr>
<td>FRA</td>
<td>526</td>
<td>12</td>
<td>2.3%</td>
</tr>
<tr>
<td>GER</td>
<td>1,401</td>
<td>47</td>
<td>3.4%</td>
</tr>
<tr>
<td>GRE</td>
<td>1,466</td>
<td>70</td>
<td>4.8%</td>
</tr>
<tr>
<td>IER</td>
<td>175</td>
<td>4</td>
<td>2.3%</td>
</tr>
<tr>
<td>IT</td>
<td>2,366</td>
<td>61</td>
<td>2.6%</td>
</tr>
<tr>
<td>LAT</td>
<td>135</td>
<td>6</td>
<td>4.4%</td>
</tr>
<tr>
<td>LIT</td>
<td>371</td>
<td>16</td>
<td>4.3%</td>
</tr>
<tr>
<td>LUX</td>
<td>453</td>
<td>16</td>
<td>3.5%</td>
</tr>
<tr>
<td>MLT</td>
<td>10,552</td>
<td>413</td>
<td>3.9%</td>
</tr>
<tr>
<td>NL</td>
<td>6,146</td>
<td>258</td>
<td>4.2%</td>
</tr>
<tr>
<td>NOR</td>
<td>2,925</td>
<td>70</td>
<td>2.4%</td>
</tr>
<tr>
<td>POL</td>
<td>406</td>
<td>24</td>
<td>5.9%</td>
</tr>
<tr>
<td>PORT</td>
<td>893</td>
<td>26</td>
<td>2.9%</td>
</tr>
<tr>
<td>SPA</td>
<td>472</td>
<td>13</td>
<td>2.8%</td>
</tr>
<tr>
<td>SWE</td>
<td>532</td>
<td>12</td>
<td>2.3%</td>
</tr>
<tr>
<td>UK</td>
<td>2,695</td>
<td>81</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Explanations:
- ISM: % of ISM deficiencies (related to total number of deficiencies) is equal or larger than the average % (3.6%).

Source: Paris MoU data file\(^{302}\), own processing.

As a second step the ISM % of each individual EU flag state is compared with the overall EU average. Flag states with the same or higher percentage than average are selected for this paragraph.

3.1.3 Maritime accidents and pollution of the marine environment

For the Member States from a historical point of view, maritime accidents and marine pollution were triggers that had legal consequences like the development of new IMO Conventions and

\(^{302}\) L. van ‘t Wout. (Paris MoU secretariat personal communication, 03-03-2015).
EU Directives and Regulations. Member States were involved as coast state, flag state and/or port state.

As explained before, the disaster of ‘Herald of Free Enterprise’ caused public awareness specifically in Belgium and the United Kingdom. The sinking of the ‘Erika’ is relating to France (Oil spill Bay of Biscay) and Malta as the flag state. This incident was also the trigger of new EU regulations. The sinking of the ‘Prestige’ caused public and political concern in Spain and the remainder of the EU. A further major incident involving the ‘Estonia’ (a Ro-ro passenger ferry on the route Tallinn-Stockholm) affected Estonia (as flag state and port state) as well as Sweden (as port state).

To summarize the above, the following table can be established:

303 See Infra subsection 2.2.2 and section 2.4.
304 See Infra section 2.4.
305 Ibid.
Table 4: Incidents (accidents and pollution)

<table>
<thead>
<tr>
<th>MS</th>
<th>3) Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEL</td>
<td>I</td>
</tr>
<tr>
<td>BUL</td>
<td></td>
</tr>
<tr>
<td>CRO</td>
<td></td>
</tr>
<tr>
<td>CYP</td>
<td></td>
</tr>
<tr>
<td>DEN</td>
<td></td>
</tr>
<tr>
<td>EST</td>
<td>I</td>
</tr>
<tr>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td>FRA</td>
<td>I</td>
</tr>
<tr>
<td>GER</td>
<td></td>
</tr>
<tr>
<td>GRE</td>
<td>I</td>
</tr>
<tr>
<td>IER</td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td></td>
</tr>
<tr>
<td>LAT</td>
<td></td>
</tr>
<tr>
<td>LIT</td>
<td></td>
</tr>
<tr>
<td>LUX</td>
<td>I</td>
</tr>
<tr>
<td>MLT</td>
<td>I</td>
</tr>
<tr>
<td>NL</td>
<td></td>
</tr>
<tr>
<td>NOR</td>
<td></td>
</tr>
<tr>
<td>POL</td>
<td></td>
</tr>
<tr>
<td>PORT</td>
<td></td>
</tr>
<tr>
<td>SPA</td>
<td>I</td>
</tr>
<tr>
<td>SWE</td>
<td>I</td>
</tr>
<tr>
<td>UK</td>
<td>I</td>
</tr>
</tbody>
</table>

Explanation:
1. Incidents (accidents and pollution)

Source: own processing.

The involved coast-, flag- and port states may be expected to be extraordinary vigilant, focussing on the proper implementation and enforcement of new regulations, so as to prevent or minimise future accidents or pollution in the future.

3.1.4 Number of ships

As described earlier the country in which the owner has a ship owned may differ from the flag state where the ship is registered. For this paper the flag registration is more relevant, as the relevant party has to comply with the Rules and Regulations of the flag state (of registration); the ship and company/operator have to comply with this flag states’ jurisdiction and supervision (certification, control and enforcement). The table below shows the number of ship registered at the flag states and secondly ranked by the number of ships.

306 See Supra subsections. 2.1.2, 2.1.3, 2.2.2 and 2.9.2.
Table 5: Fleet numbers and top 10 ranking

<table>
<thead>
<tr>
<th>MS</th>
<th>Number of ships</th>
<th>Fleet size</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEL</td>
<td>203</td>
<td></td>
</tr>
<tr>
<td>BUL</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td>CRO</td>
<td>267</td>
<td></td>
</tr>
<tr>
<td>CYP</td>
<td>1,048</td>
<td>7</td>
</tr>
<tr>
<td>DEN</td>
<td>665</td>
<td>9</td>
</tr>
<tr>
<td>EST</td>
<td>82</td>
<td></td>
</tr>
<tr>
<td>FIN</td>
<td>266</td>
<td></td>
</tr>
<tr>
<td>FRA</td>
<td>555</td>
<td>10</td>
</tr>
<tr>
<td>GER</td>
<td>744</td>
<td>8</td>
</tr>
<tr>
<td>GRE</td>
<td>1,534</td>
<td>4</td>
</tr>
<tr>
<td>IER</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>1,478</td>
<td>5</td>
</tr>
<tr>
<td>LAT</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>LIT</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>LUX</td>
<td>136</td>
<td></td>
</tr>
<tr>
<td>MLT</td>
<td>1,794</td>
<td>1</td>
</tr>
<tr>
<td>NL</td>
<td>1,272</td>
<td>6</td>
</tr>
<tr>
<td>NOR</td>
<td>1,583</td>
<td>3</td>
</tr>
<tr>
<td>POL</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>PORT</td>
<td>251</td>
<td></td>
</tr>
<tr>
<td>SPA</td>
<td>592</td>
<td></td>
</tr>
<tr>
<td>SWE</td>
<td>406</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>1,703</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: UNCTAD\textsuperscript{307}, own processing.

3.1.5 Age and (risk)type of ships

Further (important) categories to be taken into account with regards to selection and risk factors (for the selection of EU States) are the ship’s age and type. First the ships’ age of 15 years is mentioned in several rules and regulations. MARPOL Annex I (oil) requires that the Condition Assessment Scheme (CAS) is applicable to single-hull oil tankers of 15 years and older.\textsuperscript{308} The International Association of Classification Societies (IACS) requires special considerations on any vessel older over 15 years of age (Unified Requirements, UR Z).\textsuperscript{309} The Enhanced Survey Programme (ESP) require surveys on oil tankers which are ever stricter per

renewal/special survey (every 5 years), more strict for vessels over 15 years old and most strictly for tankers of 20 years and over.310

The average age of EU Flag ships is 15 years311, which is more than half of the design life for ships (25 years, IACS Common Structural Rules SSR 3.3.1)312.

As history shows unfortunately, tankers have been frequently involved in major shipping incidents causing large pollution to the marine environment313 and therefore should be regarded as another risk factor.

The result is summarised in the table underneath.

See also appendix III.

311 Appendix III.
313 See Supra section 2.2 and 2.4.
Table 6: Fleet age and type; tankers

<table>
<thead>
<tr>
<th>MS</th>
<th>Average ship age</th>
<th>5A) Fleet age</th>
<th>Tankers</th>
<th>5B) Fleet type tankers</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEL</td>
<td>15.5</td>
<td>A</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>BUL</td>
<td>29.6</td>
<td>A</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>CRO</td>
<td>15.8</td>
<td>A</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>CYP</td>
<td>14.2</td>
<td>A</td>
<td>80</td>
<td>T</td>
</tr>
<tr>
<td>DEN</td>
<td>16.7</td>
<td>A</td>
<td>96</td>
<td>T</td>
</tr>
<tr>
<td>EST</td>
<td>19.8</td>
<td>A</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>FIN</td>
<td>23.0</td>
<td>A</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>FRA</td>
<td>14.6</td>
<td>A</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>GER</td>
<td>18.4</td>
<td>A</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>GRE</td>
<td>11.9</td>
<td>A</td>
<td>445</td>
<td>T</td>
</tr>
<tr>
<td>IER</td>
<td>8.1</td>
<td>A</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>12.3</td>
<td>A</td>
<td>154</td>
<td>T</td>
</tr>
<tr>
<td>LAT</td>
<td>20.8</td>
<td>A</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>LIT</td>
<td>21.0</td>
<td>A</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>LUX</td>
<td>9.2</td>
<td>A</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>MLT</td>
<td>13.4</td>
<td>A</td>
<td>278</td>
<td>T</td>
</tr>
<tr>
<td>NL</td>
<td>14.3</td>
<td>A</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>NOR</td>
<td>82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POL</td>
<td>33.0</td>
<td>A</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>POR</td>
<td>16.2</td>
<td>A</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>SPA</td>
<td>16.4</td>
<td>A</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>SWE</td>
<td>23.6</td>
<td>A</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>14.0</td>
<td>A</td>
<td>194</td>
<td>T</td>
</tr>
<tr>
<td>Tot. Av.</td>
<td>14.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Explanation:
Fleet age 2014
A: Age, older than 15 years
Fleet type tanker 2014
T: TOP7 number of tankers

Source: A) Paris MoU inspections 2014\textsuperscript{314}, own processing, see also appendix III.
B) UNCTAD\textsuperscript{315}, own processing, see also appendix IV.

3.1.6 Compliance with (EU) legislation
An EU Member State is required to comply with EU regulations (excluding Norway which is not part of the EU, but as an EFTA member is following EU regulations on a voluntary basis). For a flag state with a small fleet it requires relatively more effort to comply with all International and European Maritime Legislation than a flag state with a larger fleet, due to higher marginal costs and efforts.

It should be noted that flag states with small fleets are less frequently inspected by PSC. However, the effect of detentions (related to the total number of PSC inspections) is less favourable for flags receiving fewer inspection, compared to larger flag states with higher

\textsuperscript{314} L. van ‘t Wout. (Paris MoU secretariat, personal communication, 03-03-2015).
\textsuperscript{315} http://unctadstat.unctad.org/wds/TableViewer/dimView.aspx.
number of PSC inspections and detentions. This is not proportional and unfavourable for smaller amount of inspection and detention, due to statistical uncertainty caused by small numbers. Based on above it would be interesting to see how small flag states perform on the criteria of compliance.

Table 7: Compliance efforts of flags with small fleets

<table>
<thead>
<tr>
<th>MS</th>
<th>No of ships</th>
<th>Compliance Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEL</td>
<td>203</td>
<td>CE</td>
</tr>
<tr>
<td>BUL</td>
<td>89</td>
<td>CE</td>
</tr>
<tr>
<td>CRO</td>
<td>267</td>
<td>CE</td>
</tr>
<tr>
<td>CYP</td>
<td>1,048</td>
<td>CE</td>
</tr>
<tr>
<td>DEN</td>
<td>665</td>
<td>CE</td>
</tr>
<tr>
<td>EST</td>
<td>83</td>
<td>CE</td>
</tr>
<tr>
<td>FIN</td>
<td>266</td>
<td>CE</td>
</tr>
<tr>
<td>FRA</td>
<td>555</td>
<td>CE</td>
</tr>
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Source: UNCTAD\textsuperscript{316}, own processing.

\textsuperscript{316} http://unctadstat.unctad.org/wds/TableViewer/dimView.asp
3.1.7 Combined overview, from longlist to shortlist

In this paragraph a multi criteria matrix, containing summarised info of previous paragraphs, will lead to a shortlist of selected EU Member States (between 5 and 7).

Table 8: Overview for flag state selection

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<tr>
<th>MS</th>
<th>1) PSC cat</th>
<th>2) ISM</th>
<th>3) Incidents</th>
<th>4) Fleet size</th>
<th>5a) Fleet age</th>
<th>5b) Fleet type tankers</th>
<th>6) Compliance Effort</th>
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<th>5 items*</th>
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</tbody>
</table>

* - incl. item 1 PSC category

Source: own processing.

Flag states meeting 4 or 5 items are first to be selected for the shortlist: Belgium, Denmark, Greece, Malta and the United Kingdom. Next, the flag states of the Netherlands is selected (PSC category B, see subsection 3.1.1). Unfortunately insufficient information from the Greek flag state was available and has therefore not further been taken into account.

The following paragraphs provide an overview of each selected flag state, covering:

1) Introduction, including fleet details
2) PSC performance
3) (V)IMSAS audit
4) Flag state certification
5) Monitoring of and supervision on ROs
6) Flag state enforcement.
3.2 Belgium

In this paragraph the Belgium flag state is reviewed, by considering the organisation, PSC performance, flag state certification, control and enforcement, including monitoring of the ROs.

3.2.1 Introduction

In Belgium the Ministry of Mobility is responsible for all transport modes, including merchant shipping; Federal Public Service Mobility and Transport, Maritime Transport (“Federeale Overheids Dienst” (FOD)). Ships sailing under Belgian flag must comply with the “Law on implementation and enforcement of the Maritime Labour Convention 2006”, “Act on the safety of vessels” and national merchant shipping act (known as “Zeevaartinspectiereglement”).

The “MLC implementation law” entered into force in Belgium on 20 August 2014. It refers to the ILO MLC 2006 and applies this to ships sailing under Belgian flag.317 The safety act includes provisions on ‘Monitoring of ships and supervision of the application of international Conventions, the law and regulations’.318 The Ship Inspection Code (“Zeevaartinspectiereglement”) consists of rules regarding inspection, certificates, condition of the hull, machinery, safety equipment, safe manning, load line and transport of cargo and passengers.319

The Royal Order 15/06/2011 (flag state obligations) transposes EU Directive 200/21/EC, which contains foundation of the flag state service, a quality system of this in conformance with ISO 9001 and measures to enforce the MLC 2006 on the Belgian fleet.320

The Belgian Maritime Inspectorate (BMI) acts as the flag state, as part of the Ministry of Transport. The BMI issues circulars on detailed topics like ISM flag state procedures, and notification of incidents.

In 2014 the Belgium fleet listed total 203 seagoing propelled merchant ships, measuring 4,385,000 GT or 6,731,000 DWT, representing 0.4% of the total world fleet (DWT).

3.2.2 PSC performance
To ascertain the PSC performance, the ranking on the Paris MoU white list is observed. In the period 2012-2014 ships sailing under Belgium Flg received inspections 228 times in one of the ports of the Paris MoU members, which resulted in two detentions (both in 2012). The EF in 2014 was -1.39, resulting in the 18th position on the white list (which is a relative ranking against other flag state, based on PSC inspections and detentions). The position on the white list varied between the 15th and 19th position, with an average EF of -1.38.

3.2.3 (V)IMSAS audit
Belgium has received two audits under the IMO VIMSAS, the first in October 2008 and the second was completed in February 2014. The inspection reports and corrective action plan of the first audit is unfortunately not available.

3.2.4 Flag state certification
Belgium has authorised six ROs to act on its behalf; ABS, BV, DNVGL, LR, NKK, RINA and Russian Maritime Register of Shipping (RMRS). Detailed procedures and requirements on surveys and certification of the delegation of work from the Belgium Maritime Authorities to the ROs are laid down in ‘The Work Matrix’. Ships older than 15 years can only be registered under Belgium flag after a pre-registry survey by the BMI.

The mentioned ROs are authorised to perform ISM verification. As for the ISM Document of Compliance (DoC), the management offices of the companies must be audited by the RO and witnessed by a BMI auditor (who may intervene and ask additional questions as well). The

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322 See supra subsection 2.8.2.
326 Ibid.
BMI issues the DoC certificate in accordance with the ISM Code. As for the Safety Management Certificate (SMC), i.e. the ISM certificate for the individual ship, ROs are authorised to perform both the audit inspections and to issue the SMC certificate. BMI reserves the right to require additional audits, to witness the audit carried by the RO, or perform the audit itself. Ship owners have to inform the BMI 14 days in advance on an intended audit, in order to give sufficient notice to BMI concerning their decision to either witness or perform the audit by the RO. Incidents, casualties, PSC detentions and pollution must be reported to the BMI ‘as soon as possible and without delay’.

A representative of BMI explained further details of the flag inspection programme in practice: It is the intention of the Belgian flag state to board every ship (SOLAS size) twice per year (worldwide), but at least once a year. After consultation with the owner the intermediate or renewal statutory surveys for Load Line, International Oil Pollution Prevention (IOPP) and Safety Equipment are selected. The remaining surveys are carried out by the RO. These surveys by the flag are as much as possible combined with intermediate of renewal surveys audits for security, ISM and MLC (which are overlapping on the issue of working and rest hours). The BMI also joins the ROs on the annual ISM office (DoC) audits. As of July 2014 these audits are performed by BMI. The ISM audits are considered to give an overarching view and a better understanding of all the concerns of a company, therefore it is important to have these audits carried by BMI itself.

3.2.5 Monitoring of and supervision on Recognised Organisations

The ROs which have been authorised by the Belgium authorities are yearly audited by government officials of Belgian Mobility (department safety and environment), in accordance with EU regulations. In addition the ROs are also monitored during mutual inspections (3.2.4) and the flag state inspection programme (3.2.6).

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328 Ibid.
332 Ibid.
3.2.6 Flag State enforcement.

The BMI considers the security of its reputation as a quality flag as one of its goals, aimed at BMI itself as well as the shipping companies sailing under Belgian flag. The quality depends on the performance of the fleet and is to be observed by the BMA. PSC inspection data (received from Paris MoU, Tokyo MoU Indian MoU and USCG) provide comment not only about its fleet and companies, but also on the “class” and ROs acting on behalf of Belgium and finally about the performance on BMI. The PSC data is utilised not only to take action to shipping companies and to build up the supervision of the flag state.

The enforcement and inspection policy was renewed in 2014; the Corporate Flag State Governance-II (CFSG-II) programme. A goal based inspection policy was effectuated to improve the quality of ships.

Continuing on details of the flag inspection programme: Immediate follow up of detentions abroad depends on the type of deficiencies and location. In every case the detention is discussed with local PSC authority, the RO and the owner of the ship. Depending on the deficiencies additional (ISM) audits on board and/or the company can be carried out. BMI does not perform unannounced enforcement inspections. Since 2010 a risk based inspection system has been implemented. Its aim is to be proactive and prevent detentions. MBI is performing a yearly analysis of all PSC inspection reports, RO reports (both surveys and audits) and own flag state reports (ISM DoC audits). As result of the analysis, a risk factor is calculated, between 0 (low) and 1 (high). Using the risk factor of all ships under Belgian flag an average is calculated. Subsequently deviations (factors lower than average) related to single ships, owners and ROs are reviewed. BMI is having a yearly meeting with each ship owner to discuss the risk factor and analysis. If paramount additional measures could pursue, including additional SMC- or DoC- ISM audits.

Highlighting some details of the risk factor, the following sub categories are taken into account per group:

- Ship managers: safety, pollution, ISM, security and no direct contact with flag state.

336 Ibid.
337 Ibid, ppt CFSG-JV.
- Class/RO: safety, pollution, ship certificates and crew certificate.

- Ships: safety, pollution, ISM and security.

3.3 Denmark

In this paragraph the Danish\(^{338}\) flag state is reviewed, by considering the organisation, PSC performance, flag state certification and -control and –enforcement, including monitoring of the ROs.

3.3.1 Introduction

The Danish Maritime Authority (DMA) is a government agency under the Ministry of Business and Growth and consists of the central authority and eight survey offices. DMA has responsibility for the Danish shipping policy, maritime law, civil service advice and assistance and legislation from the Ministry.\(^{339}\) The shipping responsibility includes construction, equipment, operation of Danish ships and PSC on foreign flag vessels in Danish ports. Tasks like surveillance and pollution prevention under restraint of the Ministry of Defence.

The Danish rules and regulations are sub-divided into Acts, Orders, Technical Regulations, Guidelines and Circulars. Illustrations of Acts are the “Merchant shipping Act” (including registration and liability for pollution and passenger rights)\(^{340}\), “Act on Safety at Sea” (implementation of relevant EU Directives, surveys, detentions and classification societies)\(^{341}\). Examples of Orders are the “Order on Port State Control of ships” (implementation of EU PSC Directive)\(^{342}\) and “Order on recognition and authorisations of organisations performing inspections and survey of ships” (implementation of EU RO Regulation and Directive)\(^{343}\). Illustrations of Circulars are recorded in the next paragraphs.

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338 Danish (overseas) territories are not taken into account.
The Danish quality shipping policy aims, amongst others, to have a high ranking on the Paris MoU list.

Ships (over 20 GT) may be registered in the Danish International Ships Register (DIS) provided the company is registered\(^{344}\) in Denmark or an EU company which has a management company (or person) in Denmark. Denmark had in 2014 665 ships (100GT or more) flying its flag, measuring 12,370,000 GT or 14,692,000 DWT, representing 0.9 % of the World GT (DWT)\(^{345}\). DMA has an established Quality Management System.

3.3.2 PSC performance

To ascertain the PSC performance, the ranking on the Paris MoU white list is observed. In the period 2012-2014 ships sailing under Danish flag received inspections 1,082 times, which resulted in 14 detentions. The EF\(^{346}\) in 2014 was -1.67, resulting in the 7th position on the white list. The position on the white list varied between the 13rd and 7th position, with an average EF of -1.71.

DMA provides guidelines for PSC performed on Danish ships, which include causes of detention, advice to the company and ship on management and support and the follow up of detentions by DMA.\(^{347}\)

3.3.3 (V)IMSAS audit

Denmark was the first Member State that has received an audit by the IMO VIMSAS team.\(^{348}\) The audit was carried out in September 2006 and was part of the Danish Government action plan for growth and innovation of the maritime cluster in Denmark. The conclusion of the audit was that Denmark was meeting the obligations in respect to the IMO Mandatory Instruments.\(^{349}\) The report showed that in addition to the audits of the ROs offices, meetings with the ROs were organised to exchange information and discuss matters with collective concern and access is provided to databases of the ROs on Danish flag ships. The ROs report


\(^{346}\) See supra subsection 2.8.2.


\(^{349}\) Ibid.
invalid certificates and conditions of class to DMA. At that time no explicit trend analysis was carried out, taking PSC inspections (non-detentions) and flag state inspections (including ISM) into account. The report noted that “follow up actions to detentions are rigorous, however from a planning perspective these are comparatively retrospective in nature.” A review of detained ships (2004, 2005 and 2006) showed that a relative small number of companies was liable for about 50% of the detentions. One of the required corrective actions, which was confirmed by DMA in the correction plan, was to develop a new flag state Inspection programme, which includes a risk based targeting system.

3.3.4 Flag state certification

The “Order on recognition and authorisations of organisations performing inspections and survey of ships” refers to the DMA website which indicates that DMA has recognised the following ROs to act on its behalf: ABS, BV, Nipon Kaiji Kyokai (NKK), DNV GL, LR, Polish Register of Shipping (PRS), Registro Italiano Navale (RINA), Korean Register (KR) and China Classification Society (CCS). 350 The ROs perform inspections and audits on all cargo ships (over 15m in length) and approve the stability of passenger ships. DMA tasks include the surveys and certification of passenger ships (except stability). Details of the areas of authorisation can be found in the Annex to the Danish RO agreement 2015. 351 DMA may obviously carry out any survey themselves and may in particular take back ISM certification of ships and/or companies.

The inspections and certification of the MLC have also been delegated to the ROs. 352 The amount of Danish national regulations on top of the International Conventions has been limited and can be found in the “Guidance on Danish technical national legislation” 353 and RO Circular “Danish national legislation” 354.

The Danish RO agreement 2015 covers issues like responsibilities, liability, complaints, communication and reporting and monitoring the RO.\textsuperscript{355} If the condition of the ship is not complying with the rules the RO shall take immediate action. If the corrections are not carried out the RO has to withdraw the appropriate certificate. The Annex to the RO agreement contains further details for example on ISM; the RO has to consult the DMA before withdrawal of ISM DoC (company) certificates caused by ISM non-compliance.\textsuperscript{356}

DMA has started a new method for passenger ship survey (starting 1 January 2015), which in addition to the usual technical surveys consists of on-board discussions with crew members on safety in order to create understanding of the safety culture on board.\textsuperscript{357}

3.3.5 Monitoring of and supervision on Recognised Organisations

As stated above the Danish RO agreement contains provisions on RO reporting and monitoring of the RO. The reporting requirements encompasses direct access of RO certificates, reports and documents by DMA. As for the monitoring, DMA may at any time monitor the RO using audit, inspections and vertical audits. The DMA RO circular contains details of the annual reporting requirements of the RO on the Danish flag ships, which include Key Performance Indicators (KPI’s) with the ROs comment -which are used by DMA for trend analysis- and biannual reports on ISM.\textsuperscript{358}

Each RO which is authorised by DMA is audited every second year by DMA to verify that the RO performs according the requirements of Denmark and the EU regulations. The DMA RO team apply several techniques to monitor the ROs: audits at the RO offices, monitoring on board during DMA surveys, frequent meetings, investigations (on PSC deficiencies and detentions and complaints) and attendance at RO technical committees.


3.3.6 Flag state enforcement

DMA performs a proactive policy on quality shipping which include risk based inspections. Additional surveys and ISM audits are carried on high risk ships and after detentions and accidents. Flag-in inspections (transfer from foreign Flag to Danish flag), carried out by the RO, are supervised and other RO surveys are attended at random. Finally DMA performs flag state inspection on Danish cargo ships at random in Denmark and ports world-wide like Gothenburg, Rotterdam, Algeciras and Singapore.359

3.4 Malta

In this paragraph the Maltese flag state is reviewed, by considering the organisation, PSC performance, flag state certification and -control and –enforcement, including monitoring of the ROs.

3.4.1 Introduction

The Ministry of Transport of Malta consists of multiple Directorates and includes the Merchant Shipping Directorate. This Merchant Shipping Directorate is responsible for merchant shipping, including regulation, registration, control and administration.360 The Directorate accommodates a Shipping Policy Department (responsible for policy of merchant shipping and advancement of the Maltese flag) and a Technical Department, which task include technical aspect of local and international legislation, PSC and flag state inspections all over the world.

The Maltese maritime law is first of all laid down in the “Merchant Shipping Act” and contain regulations on ship registration and technical details on safe of life at sea, pollution prevention and liability. Subsidiary legislation consist of Regulations and Legal notices which encompass Merchant Shipping Notices (general information), Technical Notices (technical requirements) and Information Notices (information to the shipping industry).

Implementation of the MLC is arranged through “Merchant shipping (maritime labour convention) rules”.361

Registration under Maltese flag is open for a wide range of owners, organisations and companies. Details are laid down in the “Merchant Shipping (licensing of shipping organisations) regulation”.

After the *Erika* incident in 1999 which was sailing under Maltese flag, Malta applied stricter rules on vessels aged over 15 years. On top of stricter rules an incentive for ‘young’ ships is arranged through reduction of the registration fee.

In 2014 the Maltese fleet consisted of 1,794 seagoing propelled merchant ships (100 GT and above), measuring 46,738,000 GT or 72,968,000 DWT, representing 4.3% of the total world fleet (DWT). When analysing the number of ships from another point of view, a large difference can be noted between the number of ships (1000 GT or more) with a Maltese Beneficial Owner Registration (33) and flag registration (1,698).

### 3.4.2 PSC performance

To ascertain the PSC performance, the ranking on the Paris MoU white list is observed. In the period 2012-2014 ships sailing under Maltese flag received inspections 4,369 times, which resulted in 126 detentions. The EF in 2014 was -1.22, resulting in the 21 position on the white list. The position on the white list varied between the 21 and 27 position, with an average EF of -1.08. The number of detentions has been gradually reduced from 200 (2008-2010) to 126 (2012-2014) and the EF went down from -0.99 to -1.22 in the same period (which is also an improvement).

### 3.4.3 (V)IMSAS audit

Malta received one audit under the IMO VIMSAS on October 2011. The inspection reports and corrective action plan of this audit are not available. According to the “Merchant Shipping

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364 See supra section 2.4.


366 Maltese Shipping Act, first schedule(article 6), registration fees, p.179. See also supra note 361.


(flag state requirements) Regulations” the flag state is to be audited by the IMO at least every seven years.  

3.4.4 Flag state certification

All surveys on Maltese ships measuring more than 500 GT are delegated to the ROs, which also include ISM, security (ISPS) and MLC. Ships smaller than 500 GT and/or 24 m of (Load Line) length are surveyed by flag surveyors. The following ROs are recognised to issue statutory certificates on behalf of Malta: ABS, BV, CCS, Croatia Register of Shipping (CRS), NKK, DNVGL, KR, LR, Polish Register of Shipping (PRS) and RMRS.

Flag-in surveys (from a foreign flag to the Maltese flag) are carried out by the RO. Ships of 15 years of age and over are, however, are in addition to the RO inspected by a flag state inspector within one month of interim registration, while ships of 20 years of age require a flag state inspection prior registration. Finally ships with an age of 25 years and over are not accepted in the Maltese register.

3.4.5 Monitoring of and supervision on Recognised Organisations

Firstly, according the “Merchant Shipping (ship inspection and survey organisations) regulation” the ROs are audited every two years and the report is send to the EU Commission. This regulation requires that the ROs have a local representative on Malta. Furthermore flag state inspectors attend local ship surveys and audits (ISM, security and MLC) and ISM company audits (based on Malta) as observers. Inconsistencies which are observed are analysed and ultimately reviewed with the management of the related RO.

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375 M. Chapelle. (Transport Malta, personal communication, 31 July 2015).
3.4.6 Flag state enforcement

Supplementary to the surveys by the ROs, Maltese flags state inspectors randomly inspect ships all over the world, in order to verify compliance with statutory requirements.\textsuperscript{376} Details are laid down in the “Flag State Ship Safety Inspections” notice.\textsuperscript{377}

Further details of the flag state programme were obtained from the Merchant Shipping Directorate;\textsuperscript{378} The aim is to inspect as many ships as possible within one year, taking into account the trading area and accessibility. Dedicated flag inspections forms are used, which depend on the ships type. More problematic ships and ship managers are visited at a shorter interval (3 to 6 months), regardless which port. It is the prevailing approach to request the ship (owner) which has been detained more than three times in a two year period to leave the Maltese register. The flag state procedures are ISO controlled and all records are analysed and acted upon.

3.5 The Netherlands

In this paragraph the Netherlands flag state is reviewed, by considering the organisation, PSC performance, flag state certification and -control and –enforcement, including monitoring of the ROs.

3.5.1 Introduction

The Directorate-General for Mobility and Transport is a member of the Dutch Ministry of Infrastructure and Environment and is on the policy level responsible for the transport sector, including merchant shipping. The Human Environment and Transport Inspectorate (“Inspectie Leefomgeving en Transport” (ILenT) provides compliance with statutory regulations related to safety and sustainability. The ILT is sub-divided into inspectorate domains, one of which is the Netherlands Shipping Inspectorate (NSI), certified to ISO 9001 standard for its flag state activities. The NSI supervises the classification societies, Dutch flag companies, ships and their manning. In addition, NSI performs PSC inspections on board of foreign flag ships.

\textsuperscript{378} M. Chapelle. (Transport Malta, personal communication, 31 July 2015).
Ships sailing under the Dutch flag must comply with national shipping regulations, of which the Shipping Act has a paramount character. Further details are laid in the Shipping Decree (2004), which contains a reduced number of national rules and includes dynamic referencing to international conventions (allowing for automatic application under Dutch law after changes international regulations). The Dutch government strives to maintain a permanent position in the top ten of the Paris MoU white list.

The Dutch fleet consisted in 2014 of 1,272 seagoing propelled merchant ships (100 GT or more), measuring 7,895,000 GT or 8,897,000 DWT, representing 0.5% of the total world fleet (DWT).

3.5.2 PSC performance
To ascertain the PSC performance, the ranking on the Paris MoU white list is observed. In the period 2012-2014 ships sailing under Dutch flag received inspections 3,170 times, which resulted in 79 detentions. The EF in 2014 was -1.34, resulting in the 19th position on the white list. The position on the white list has dropped from position 4 (2010) and 5 (2011) to 15 (2012) and 19 (2013). The EF was low (-1.78) in 2011 and relative higher (-1.26) in 2013. The governments’ mission to keep a top-10 Paris MoU white list position could not be maintained.

The detentions in 2012 were analysed and it was concluded that the detained ships fell into the category of cargo ships smaller than 5000 GT and main detention areas were ISM, emergency generator and fire detection. An analysis of consecutive years and the measures taken is part of paragraph 3.6.6.

3.5.3 (V)IMSAS audit
The IMO VIMSAS audit was carried out in September 2007 and covered flag state, port state and coastal state obligations. The overall conclusion was that the Netherlands largely complied with the obligations of the IMO instruments. It appeared that an “overall strategy for
implementation and enforcement of mandatory IMO instruments” was lacking, however separate strategies of government organisations were available.

3.5.4 Flag state certification

The Dutch Administration issues certificates related to registry, manning, security, MLC, liability and national declarations. The following ROs are authorised to carry out statutory surveys and issue certificate on behalf of NSI: ABS, BV, DNVGL, LR, NKK and RINA. Details of delegation are laid down in class agreements (including annex and appendix). As stated in the appendix most surveys and certification related to SOLAS (including ISM for ship and company, as well as security), MAROL, Load Line, Tonnage Measurement, Lifting Gear and MLC are delegated to these ROs.

3.5.5 Monitoring of and supervision on Recognised Organisations

The NSI is fully aware of its obligation as a flag state, even when it has delegated most surveys and certification to the authorised ROs. The ROs are monitored by means of a supervision programme which is additional to the recognition audit carried out by EMSA. Monitoring of the ROs is carried out by means of a combination of periodical audits and random inspections. Which are planned using a risk based selection.

The RO “Inspection programme 2014-2016” specifies the supervision, which include both system supervision and product supervision. The system supervision focusses on systems and processes (instead of products) and includes horizontal and vertical audits and continuous monitoring with input from signals and reports. Overall findings are summarised in a report “Evaluation Supervision on the Classification Society”. In addition EU reports are provided to comply with the EU regulations on RO supervision.

3.5.6 Flag state enforcement

As in previous years, all 2013 detentions were reviewed and showed that one ship owner was responsible for 4 detentions, one with 3 detentions, 4 ship owners with 2 detentions and 5

owners with one detention. A total of 6 ship owners were held liable for 50% of all detentions. ISM was again one of the larger detention areas. The company performance (outcome of matrix containing detention ratio and deficiency ratio) of the companies were scrutinised; high for 161 companies (62%), medium for 69 (27%) companies, low for 25 companies (10%) and very low for 4 companies (2%). It appeared that 4 companies had a low performance during 3 consecutive years. The low and very low performing companies were placed under stricter supervision and discussion with shipping associations and ROs continued. However 200 out of 500 ship owners were not taken into account because no PSC inspection data of Paris MoU was available.

The flag state programme of 2014 aims to focus on the low and very low performing companies, with special attention to multiple detentions and efforts to obtain information on unknown ship owner performance. Utilising a spot check method, ships are inspected of 10% of the high performing companies and 20 % of the medium performing companies. Ultimately, at very low performing companies each ship is inspected (‘expanded’ inspection) and in addition the company office is audited. The expanded inspection starts with an initial inspection and in addition operational controls are carried out, with its spotlight on ISM. As for the blind spots (company performance unknown) flag state inspections are carried out in order to build up information on company performance. Ships are selected (also related to company performance) based on secondary sources as Tokyo MoU and USCG and inspected with a preference to ships visiting Dutch ports.

The Dutch flag state supervision programme “Inspectieprogramma vlaggenstaattoezicht” aims to obtain information on the compliance with respect to safety and environment, accomplishment of ship owners requirements and conformity with flag state obligations. The flag states supervision focal point is directed to the ship owner and less to the ships, themselves it is risk based and targets more towards system monitoring.

Regular supervision/enforcement inspections are carried out following complaints, reports or accidents. In addition, flag state inspections (programme 2015) are carried out based on the company performance; the PSC inspection results (deficiencies and detentions) of PSC inspections carried out in the Paris MoU are taken into account in order to measure the

performance of the (ISM) companies. The company performance in 2014 was low in case of 27 (10%) ship owners, with 80 ships and very low for 6 ship owners (2%) with 16 ships. The focus for 2015 remained on low and very low performing companies and ship owners with multiple detentions. The NSI organised a seminar in 2015 with the ship owners association, ship owners and ROs to discuss PSC inspection results, including deficiency areas in order to raise awareness and improve compliance.

3.6 United Kingdom

In this paragraph the United Kingdom flag state is reviewed, by considering at the organisation, PSC performance, flag state certification and -control and –enforcement, including monitoring of the ROs.

3.6.1 Introduction

In the United Kingdom responsibility for regulating vessels lies with the Department for Transport (DFT), which and is working “with industry and international colleagues setting standards for maritime safety and security”. DFT is supported by an executive agency: Maritime and Coastguard Agency (MCA), whose goal is to prevent the loss of life on the coast and at sea. MCA provides legislation and guidance on maritime matters and grants seafarers’ certification. MCA is ISO 9001 certified.

The Merchant Shipping Act (1995) is the most important shipping law in the UK and contains regulation on ship registration, manning, safety, prevention of pollution and accident investigation. International maritime legislation for example on liability is incorporated in secondary law: Shipping Orders.

In addition to the Act and orders MCA provides notes, such as Merchant Shipping Notes which contain mandatory technical details of regulations. Supplementary advice is arranged by Marine Information Notes and Marine Guidance Notes.

Dependent Territories or red ensign flags are separately listed on the Paris MoU list and therefore not considered to be part of the UK flag for this report.


I 2014 the United Kingdom fleet consisted of 1,703 seagoing propelled merchant ships (100 GT or more), measuring 31,867,000 GT or 42,669,000 DWT, representing 2.5% of the total world fleet (DWT). The UK Ship Registers’ intent is to have quality owners and vessels and therefore arrange that the average age of 85% of the UK flag ships (500 GT or over) is 10 years or younger.

3.6.2 PSC performance
To ascertain the PSC performance, the ranking on the Paris MoU white list is observed. In the period 2012-2014 ships sailing under the flag of the United Kingdom received inspections 1,369 times, which resulted in 19 detentions. The EF in 2014 was -1.66, resulting in the 8th position on the white list. The position on the white list has been in the top 10 of the whist list (with the exception of 2012; position 13). It is the UK’s ambition to maintain a position in the top 10 of the Paris MoU white list.

3.6.4 Flag state certification
Since more than 10 years the MCA has been gradually delegating more and more surveys and certification to the ROs. Most statutory surveys of ships (about 80%) sailing under the United Kingdom flag have been delegated to one of the authorised ROs, this concerns Load Line, Safety Radio, Safety Construction, and MARPOL. The following ROs are authorised to carry out statutory surveys and issue certificates on behalf of the UK: ABS, BV, DNVGL, LR, NKK and RINA. However MLC surveys and audits for ISM and security are carried out by MCA. Surveys for Safety Equipment are carried out by MCA as well, however can be delegated to the RO on a case-by-case basis. Nonetheless the UK does survey ships by themselves if ships are in the UK, at one out of 5 surveys and if there a specific grounds like after a detention.

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395 Ibid.
A so called Alternative Compliance Scheme (ACS) has been implemented, which is available for all UK flag vessels other than passenger ships. At the same time ships have to meet criteria prior access to the ACS, like no detention in the previous 3 years and no more than 5 deficiencies in every PSC inspection in the previous 12 months. In addition a Certificate of Inspection is issued after verification that the ships condition is approved by MCA. The ACS started in April 2003 and the consequence of the partly delegation is that MCA inspects every ship every 2.5 years and that statutory surveys carried out by the ROs are combined with Classification Surveys. Dry dockings can be attended by the MCA on a case-by-case basis (the ship owner has to give one month notice). The benefits for the owner are better worldwide coverage and for MCA it provides a better control and adjusted workload. The ACS can also be withdrawn for instance if case of accidents, pollution, expired certificates and PSC detentions.

3.6.5 Monitoring of and supervision on Recognised Organisations

The ROs are monitored by the UK Governments’ ‘External Improvement and Assurance Branch’ as required by the ‘RO’ Directive (15/2009/EC). If a MCA surveyor has concerns over the condition of a ship which relates to the RO a report will be send to this Branch office. In addition RO related deficiencies found during PSC inspections are assessed by the Branch office. The ROs and the MCA meet at regular intervals and surveys of RO are witnessed for instance during a dry dock. In addition vertical audits are carried out.

3.6.6 Flag state enforcement

A Safety Equipment Survey performed by MCA is not restricted to the area of this survey, a ‘walk around’ of the ship is carried out incorporating other inspection areas. This applies for ISM audits as well; the MCA does not restrict to only the paper work and procedures; during a ‘walk around’ a better impression of the function of the ISM can be made to access of the ISM works in practise. If during the round a (technical) defect is found, the proper follow up of the ISM system is reviewed.

400 P. Dolby. (MCA, personal communication, 9 June 2015).
Furthermore the MCA performs additional flag state supervision inspections ("General Inspections"), which are unannounced. These General Inspections are performed on ships calling at ports in the UK and are combined with inspection programmes related to bulk carriers and garbage inspections. The inspection methodology can be compared with PSC inspections. The results (inspection reports on ships’ level) of the General Inspections are entered in a database. No further analysis is carried out, nonetheless the ship can be listed on an attention list if inspection results induce that the ship should receive extra attention during the next ship visit.

If UK flag ships are detained in foreign port and MCA is visiting the ship an additional General Inspection is carried out. Attendance of MCA depends on the deficiencies of the detention and it all detentions cases MCA is consulting with the ship owner (within 6 weeks after the detention) on the steps taken by the owner and measures to prevent future detentions.

Finally, all PSC reports are reviewed by UK Ship Registration office on a monthly interval. Also regular (non-detainable) deficiencies are reviewed, in particular ISM deficiencies. If a motive is found an additional inspection can be required and MCA will consult with the owner as to how future occurrences can be prevented.

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403 Ibid.
3.6.3 (V)IMSAS audit

The IMO VIMSAS audit was carried out in November 2006. The overall conclusion was that the United Kingdom largely complied with the obligations of the IMO instruments. Several areas were considered to be good practice, while a relative small part showed room for improvement. One of the findings was that the United Kingdom had not transposed all mandatory instruments into national legislation, which was corrected by later transposition. Another finding concerned the fact that there was “no clear evidence of a documented training programme for flag state surveyors”. A system of training was planned to be in place by August 2007, which grants a better overview of all flag state surveyors.

4 Results, comparison of flag states and discussion

This chapter will review, compare and discuss the results of the flag states’ enforcement programmes. First, the review concerns the findings of the EU requirements in general and of the selected flag states in particular will be presented. Then, the flag states performances and supervision programmes are compared. Finally, the results of the first 2 sections will be discussed.

4.1 Results of flag state enforcement/supervising programmes

The efforts and results of the flag states related the monitoring of the ROs and their monitoring/supervision programmes is reviewed here.

Initially this is done from a general point of view related to EU flag state and RO requirements, and next the selected flag states are reviewed in relation to (RO related) detentions, SRP, ISM deficiencies and deficiency ratio. It should be noted that the Paris MoU annual report 2015 has not been published, however calculation of the EF 2015 can be made. The calculated EF of 2015 can be compared with previous years. The exact position on the Paris MoU white list in 2015 depends on the EF of all flag states and should therefore be considered a relative ranking.


4.1.1 Flag state Directive compliance

According to the EU Commission report (to the EU parliament and the council) “on the application of Directive 2009/21/EC on compliance with flag state requirements”, the selected flag states were complying with requirements of the VIMSAS audit, and a certified quality management system was in place or pending at the time of deadline in 2012. As for the requirement that no EU flag state should be listed on the grey or black list of the Paris MOU, it was concluded that, with reference to the 2013 PMoU annual report (inspection data 2010-2012), no EU flag was on the black list and that of EU flag states -selected in this report- none was on the grey list. Also in the subsequent PMoU annual report of 2014 (inspection data 2011-2013) no EU flag states are listed on the black list and none of the selected EU flag states were listed on the grey list.

Several best practices aimed at maintaining a position on the Paris MoU white list were highlighted by the consulted flag states: consider PMoU criteria at flag state inspections, additional inspection and audits on detained ships, operators of vessel with deficiencies needed to explain these non-conformities to the flag and flag state inspections on targeted ships calling at a flag state port.

4.1.2 RO Directive and Regulation compliance

The EU Commission report (to the EU parliament and the council) “on the progress in the implementation of Regulation (EC) No 391/2009 and Directive 2009/15/EC on common rules and standards for ship inspection and survey organisations and for the relevant activities of maritime administrations” addresses the bi-annual reporting of the Member States. All Member States have a formal ‘working relationship’ with the related ROs, as required by article 5 of the Directive. The power of the Member States to suspend or to withdraw the authorisation of the ROs was not applied. Also no notification was received regarding "cases of ships representing a serious threat to safety and the environment or showing evidence of particularly

negligent behaviour of the recognised organisations, related to the monitoring of the RO as a port state.

EMSA, which supervises the ROs on behalf of the EU Commission, has utilised a risk-based approach on assessing compliance of the ROs with (Regulation 391/2009). In a period of 5.5 years (up to end of 2014) it inspected RO head offices, branch offices and ships. The performance of the ROs has been reviewed and possible root-causes are analysed. The ROs concerned did take corrective and preventive action, however the report does not provide details on specific ROs. In addition the Commission did not have to use its powers to take actions of impose fines or penalties to the ROs. Finally the Commission reviewed PSC data (obtained from Paris MoU, Tokyo MoU and USCG) associated with RO-related detentions. The performance of all (world-wide) ROs are calculated and ranked, the EU recognised ROs are ranked with a “fair” (medium) to “high” performance, see also the RO performance table.

The Paris MoU inspection report of a detained ship –as found in the database- may show an indication that the RO is deemed responsible for a detainable deficiency. The PSC officer has to take several conditions into account before this tag is applied: The RO related label is not applicable to regular (non-detainable) deficiencies, the RO must have issued or endorsed the statutory certificate relevant for the deficiency AND has carried out the last survey or audit. Furthermore examples of RO related detainable deficiencies are: structural deficiency like corrosion and wastage, equipment or non-structural deficiency (AND less than 90 days since last RO survey) and a detainable ISM-deficiency (AND less than 90 days since last RO audit).

4.1.3 Belgium

Only two detentions were recorded (Paris MoU) on Belgian flag ships in 2012 and no detentions in 2013 and 2014. Both detentions in 2012 were not RO related (see also appendix V).

[409] Directive 2009/15/EC, art. 10. See also supra note 168.
[413] Ibid.
The ROs recognised by Belgium (ABS, BV, DNVGL, LR, NKK, RINA and RMRS) were in 2014 all ranked as of “high” performance.415

In 2015 no detentions were recorded in the Paris MoU. With a total of 207 inspections in 3 years the EF will be -1.80 416, which is an improvement to previous years and will result in a high position on the white list.417

The deficiency rate (total number of deficiencies divided by the number of inspections) for 2015 was 1.85, which nearly equals the average of the 3 preceding years (1.84). The number of ISM deficiencies in 2015 was 5 (4.0%).

For the SRP it can be noted that Belgium had no ships ranked as high risk. The majority (91%) of the Belgium flag ships inspected were graded as standard risk, the remaining ships were mainly low risk. For further details see appendix VII.

The Belgian Government reported that it was recorded in the white list of the de Tokyo MOU and received the USCG “Qualship 21” notation, including the “sign of excellence” end of 2014.418

Based on the above mentioned and paragraphs 4.1.1 and 4.1.2 a tentative conclusion can be drawn: The efforts of Belgium, through its Flag State Programme (CFSG-II), towards ROs, ships and operators seems to provide a good result as no RO related detentions are noted, the detention rate is very low (zero) and the deficiency rate continued lowering in the past years.

4.1.4 Denmark

One of the 4 (Paris MoU) detentions on Danish flag ships in 2013 was RO related. The involved RO was BV and the RO related detainable deficiencies concerned fire safety, life saving appliances and ISM.419 Consecutive PSC inspections on the same ship in 2013, 2014 and 2015 show no detentions and only a few deficiencies (average 2). The detentions on Danish flag ships in 2012 and 2014 were not RO related. (see also appendix V and VI).

415 See supra note 411.
417 See supra subsection 3.1.2.
419 See supra note 414.
The ROs recognised by Denmark (ABS, BV, NKK, DNV GL, LR, PRS, RINA, KRS and CCS were in 2014 all ranked as of “high” performance.  

In 2015 2 detentions were recorded in the Paris MoU, which is an absolute and relative improvement. With a total of 1,137 inspections and 9 detentions in 3 years the EF will be $1.87$, which is an improvement to previous years and will result in a high position on the white list.

The deficiency rate for 2015 was 1.07, which is an improvement to previous years (average 1.46). The number of ISM deficiencies in 2015 was 14 (3.4%).

For the SRP it can be noted that Denmark had only 1 ship ranked with a high risk in 2015 and none in 2012, 2013 and 2014. The majority (81%) of the Danish flag ships inspected in 2015 were graded as standard risk, the remaining ships were mainly low risk. For further details see appendix VII.

Also Denmark meet the criteria of the USCG “Qualship21 Program”.  

Based on the above mentioned and paragraphs 4.1.1 and 4.1.2 a tentative conclusion can be drawn: The effort of the Denmark towards ROs, ships and operators seems to provide a good result as only one RO related detention was noted in 2013 and none in 2014 and 2015, the detention rate is further reduced (2 detentions, 0.5%) and the deficiency rate continued lowering in the past years and is also very low (1.07).

4.1.5 Malta

A review of the Paris MoU detentions shows several RO related detentions with a large variation: 3 RO related (6.5% of the detentions) in 2012, 7 RO related (17.1% of the detentions) in 2013, no RO related (of 39 detentions) in 2014 and 6 RO related (10.5% of the detentions) in 2015. The ROs concerned are NKK (5), LR(3), BV(3), RINA (2), RMRS (2), ABS (1), CCS (1), and PRS (1). Detention areas vary, but include often fire safety, life saving appliances, structural conditions and ISM. It is remarkable that the majority of the ISM companies -of ships with the RO related detentions- are not based in Malta but, by way of example in Turkey, for further details see appendices V and VI.

420 See supra note 411.
421 See supra note 416.
Nearly all ROs recognised by Malta (ABS, BV, CCS, NKK, DNVGL, KR, LR, PRS and RMRS) were in 2014 ranked as of “high” performance, only CRS was ranked as “medium” (although the EF was only +0.02, which is very close to zero-the white and grey list limit).

In 2015 57 detentions were recorded in the Paris MoU. With a total of 4,453 inspections and 137 detentions in 3 years the EF will be -1.16, which is slightly lower than the previous year. Malta will remain on the white list.

The deficiency rate for 2015 was 2.14, which is an improvement to previous years (average 2.42). The number of ISM deficiencies in 2015 was 145 (4.4%).

For the Ship Risk Profile it can be noted that Malta had 5% of their ships ranked with the high risk profile in 2015. The majority (81%) of the Maltese flag ships inspected were graded as standard risk, the remaining ships were mainly low risk. For further details see appendix VII.

In the ‘Transport Malta’ Annual report 2014 it was noted that the average age of all merchant ships at 31 December 2014 was 12 years. As for the flag state control it is declared that specialised training of personnel and expansion of overseas flag state inspectors are priorities. In 2014 a total of 713 flag state inspections were carried out in 46 countries, leading to 29 detentions. Malta does not meet the criteria of the USCG “Qualship21 Program”.

Based on the above mentioned and paragraphs 4.1.1 and 4.1.2 a tentative conclusion can be drawn: The effort of Malta towards ROs, ships and operators seems to provide a varying result. With regard to the RO related detentions none were noted in 2014, however vary during other recent years: 6.5% (2012), 17.1% (2013) and 10.5% (2015). Although nearly all the ROs recognised by Malta are ranked with a “high” performance, the number and percentage of RO related detentions on Maltese flag ships indicate that the RO monitoring programme by Malta shows room for improvement. The detention rate in 2015 is higher than in previous years, however the deficiency rate slightly improved. This would indicate that the Maltese supervising programme on ships and operators has not (yet) proved itself.

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423 See supra note 416.
425 See supra note 422.
4.1.6 The Netherlands

A review of the Paris MoU detentions show several RO related detentions: 3 (8.6%) in 2012, 5 (16.7%) in 2103, while none in 2014 and 2015. The ROs concerned are BV (4), GL (3) and LR (1).

The ROs recognised by the Netherlands (ABS, BV, DNVGL, LR, NKK and RINA) were in 2014 all ranked as of “high” performance.426

In 2015 10 detentions were recorded in the Paris MoU. With a total of 3,123 inspections and 54 detentions in 3 years the EF will be -1.62 427, which is an improvement to the previous 3 years and will result in a high position on the white list.

The deficiency rate for 2015 was 1.34, which is lower than the previous years (average 1.88). The number of ISM deficiencies in 2015 was 51 (3.7%).

For the SRP it can be noted that the Netherlands had 0.3% of their ships ranked with a high risk profile in 2015. The majority (90%) of the Dutch flag ships inspected were graded as standard risk, the remaining ships were mainly low risk. For further details see appendix VII.

The Netherlands meet the criteria of the USCG “Qualship21 Program”.428

Based on the above mentioned429 and paragraphs 4.1.1 and 4.1.2 a tentative conclusion can be drawn: The efforts of the Netherlands towards ROs, ships and operators seems to provide a good result. Although RO related detentions were noted in 2012 (8.6%) and 2013 (16.7%), no RO related detentions occurred in 2014 or in 2015. The number of detentions and the detention rate are successively reducing and is low in 2015 (10 detentions, 1.0%). Also, the deficiency rate continued lowering in recent years and is currently also low (1.34).

4.1.7 United Kingdom

One of the 12 (Paris MoU) detentions on UK flag ships in 2012 was RO related (8.3%). The involved RO was GL and the RO related detainable deficiencies concerned radio communications (see also appendix VI). In 2013, 2014 and 2015 no RO related detentions occurred.

426 See supra note 411.
427 See supra note 416.
428 See supra note 422.
429 The 2015 annual report of the Netherlands Administration is not yet available, as per 03-05-2016.
The ROs recognised by the United Kingdom (ABS, BV, DNVGL, LR, NKK and RINA) were in 2014 all ranked as of “high” performance.430

In 2015 only 2 detentions were recorded in the Paris MoU. With a total of 1,315 inspections and 9 detentions in 3 years the EF will be -1.93, which is an improvement to previous years and will result in a high position on the white list.431

The deficiency rate for 2015 was 1.49, which is lower than the previous years (average 1.88). The number of ISM deficiencies in 2015 was 19 (3.0%).

For the SRP it can be noted that the UK had 0.2% of their ships ranked with a high risk profile in 2015. The majority (87%) of the UK flag ships inspected were graded as standard risk, the remaining ships were mainly low risk. For further details see appendix VII.

As mentioned in the MCA annual report 2014-2015, the UK has been able to maintain a quality Ship Register (on the white list of Paris and Tokyo MoU), even though the target of reducing the average age of ships (85% of ships over 500GT to 10 years old or less) has not been achieved.432

The United Kingdom meet the criteria of the USCG “Qualship21 Program”.433

Based on the above mentioned and paragraphs 4.1.1 and 4.1.2 a tentative conclusion can be drawn: The effort of the UK towards ROs, ships and operators seems to provide a good result as only one RO related detention was noted in 2012 and none in 2013, 2014 and 2015, the detention rate is gradually reducing and is low (2 detentions, 0.5%) and the deficiency rate continued lowering in the past years and is also low (1.49).

**4.2 Comparison of flag states**

Whereas in the previous paragraphs the results of the individual flag states was scrutinised, in this paragraph the selected flag states are compared amongst each other in order to provide possible similarities and differences, which will be discussed in paragraph 4.3.

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430 See supra note 411.
431 See supra note 416.
433 See supra note 422.
The flag states will be compared with regard to:
- Detentions, EF and positions on the white list
- RO related detentions
- Ship Risk Profiles
- Deficiency rate and ISM deficiency percentage
- Compliance on USCG “Qualship 21” programme
- Survey and certification by the flag state and/or RO
- RO monitoring programme
- Flag state supervising and monitoring programme

Table 9 provides an overview figures of detentions and inspections which results in the Excess Factors (EFs) and position on the white list of the Paris MoU (not yet established for 2015).  

Table 9: Detentions and EF

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<th></th>
<th>BEL</th>
<th>DEN</th>
<th>MLT</th>
<th>NL</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspections</td>
<td>207</td>
<td>1,137</td>
<td>4,453</td>
<td>3,123</td>
<td>1,315</td>
</tr>
<tr>
<td>Detentions</td>
<td>6</td>
<td>9</td>
<td>137</td>
<td>54</td>
<td>9</td>
</tr>
<tr>
<td>EF*</td>
<td>-1.80</td>
<td>-1.87</td>
<td>-1.16</td>
<td>-1.62</td>
<td>-1.93</td>
</tr>
</tbody>
</table>


---

434 For the calculation of the EF the 3 year rolling average of inspections and detentions is used. For instance the EF of 2015 is calculated with inspections and detentions of 2013, 2014 and 2015. See also appendix II.

All selected EU flag states are listed in the Paris MoU white list, as the EF is less than zero. The EF for several flag states gradually improved (i.e. became more negative) like for Belgium, Denmark, the Netherlands and United Kingdom. The trend for Malta however shows a slight overall decrease. This can be seen in figure 1.

Figure 1: Excess factor


The following table provides an overview of the RO related detentions in relation to the detentions not marked as RO related in the Paris MoU for the selected EU flag states.

Table 10: RO related detentions

<table>
<thead>
<tr>
<th></th>
<th>BEL</th>
<th>DEN</th>
<th>MLT</th>
<th>NL</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detentions</td>
<td>2</td>
<td>7</td>
<td>46</td>
<td>35</td>
<td>12</td>
</tr>
<tr>
<td>RO related</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>%</td>
<td>0.0%</td>
<td>0.9%</td>
<td>6.5%</td>
<td>8.6%</td>
<td>8.3%</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detentions</td>
<td>0</td>
<td>4</td>
<td>41</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>RO related</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>%</td>
<td>0.0%</td>
<td>25.0%</td>
<td>17.1%</td>
<td>16.7%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detentions</td>
<td>0</td>
<td>3</td>
<td>30</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>RO related</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>%</td>
<td>0.0%</td>
<td>0.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detentions</td>
<td>0</td>
<td>2</td>
<td>57</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>RO related</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>%</td>
<td>0.0%</td>
<td>0.9%</td>
<td>10.5%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Source: Paris MoU\textsuperscript{437}, own processing.

\textsuperscript{436} Ibid.

The table shows that RO related detentions in general are decreasing in successive years, however for Malta remains significant in 2015.

In addition a comparison is made of the ship risk profiles. The table below provides an indication of the percentage of the high risk ships (HRS), standard risk ship (SRS) and low risk ship (LRS) in relation to the total of ships inspected in the Paris MoU.\textsuperscript{438}

Table 11: Ship risk profiles

<table>
<thead>
<tr>
<th></th>
<th>BEL</th>
<th>DEN</th>
<th>MLT</th>
<th>NL</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% HRS</td>
<td>0.0%</td>
<td>0.0%</td>
<td>8.5%</td>
<td>0.2%</td>
<td>0.6%</td>
</tr>
<tr>
<td>% SRS</td>
<td>66.3%</td>
<td>70.1%</td>
<td>30.6%</td>
<td>82.6%</td>
<td>78.8%</td>
</tr>
<tr>
<td>% LRS</td>
<td>23.1%</td>
<td>25.1%</td>
<td>5.5%</td>
<td>12.6%</td>
<td>11.6%</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% HRS</td>
<td>0.0%</td>
<td>0.0%</td>
<td>5.6%</td>
<td>0.2%</td>
<td>0.9%</td>
</tr>
<tr>
<td>% SRS</td>
<td>66.2%</td>
<td>56.1%</td>
<td>75.7%</td>
<td>83.9%</td>
<td>80.1%</td>
</tr>
<tr>
<td>% LRS</td>
<td>21.5%</td>
<td>37.7%</td>
<td>15.0%</td>
<td>15.9%</td>
<td>12.5%</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% HRS</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.3%</td>
<td>0.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>% SRS</td>
<td>77.0%</td>
<td>76.3%</td>
<td>81.0%</td>
<td>86.9%</td>
<td>80.0%</td>
</tr>
<tr>
<td>% LRS</td>
<td>17.6%</td>
<td>19.6%</td>
<td>10.5%</td>
<td>10.2%</td>
<td>14.1%</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% HRS</td>
<td>0.0%</td>
<td>0.3%</td>
<td>3.5%</td>
<td>0.3%</td>
<td>0.2%</td>
</tr>
<tr>
<td>% SRS</td>
<td>91.2%</td>
<td>80.6%</td>
<td>86.4%</td>
<td>89.6%</td>
<td>86.6%</td>
</tr>
<tr>
<td>% LRS</td>
<td>7.4%</td>
<td>11.1%</td>
<td>4.7%</td>
<td>7.6%</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

Source: Paris MoU\textsuperscript{439}, own processing.

The table shows that Malta compared to other flag states has a relatively high percentage of high risk ships (these ships are inspected at a 5-6 months interval), although this percentage has been reduced by more than half (2014-2015). For the flag states Belgium, Denmark, the Netherlands and the United Kingdom the standard risk ships (these ships are inspected at a 10-12 months interval), is the largest category and is comparable in a range between 87% and 91% (2015). The low risk ship figures (these ships are inspected at a 24-36 months interval) are comparable for Belgium, the Netherlands and the United Kingdom (around 7%), while for Denmark more ships (11%) are ranked as low risk.

\textsuperscript{438} For a small percentage of ships the SRP is unknown- due to missing parameters- , therefore HRS+SRS+LRS<100%.

Furthermore a comparison of the deficiency rate (Paris MoU) and ISM deficiency percentage can be made. This is shown in the table below.

**Table 12: Deficiency rate and ISM deficiency %**

<table>
<thead>
<tr>
<th>Year</th>
<th>BEL</th>
<th>DEN</th>
<th>MLT</th>
<th>NL</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1.72</td>
<td>1.65</td>
<td>2.64</td>
<td>2.02</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>3.99%</td>
<td>3.70%</td>
<td>3.60%</td>
<td>4.30%</td>
<td>3.30%</td>
</tr>
<tr>
<td>2013</td>
<td>2.41</td>
<td>1.54</td>
<td>2.46</td>
<td>2.17</td>
<td>1.86</td>
</tr>
<tr>
<td></td>
<td>3.3%</td>
<td>2.9%</td>
<td>4.2%</td>
<td>4.5%</td>
<td>2.1%</td>
</tr>
<tr>
<td>2014</td>
<td>1.41</td>
<td>1.2</td>
<td>2.17</td>
<td>1.66</td>
<td>1.89</td>
</tr>
<tr>
<td></td>
<td>2.90%</td>
<td>2.10%</td>
<td>4.00%</td>
<td>3.90%</td>
<td>3.20%</td>
</tr>
<tr>
<td>2015</td>
<td>1.85</td>
<td>1.07</td>
<td>2.14</td>
<td>1.34</td>
<td>1.49</td>
</tr>
<tr>
<td></td>
<td>4.00%</td>
<td>3.40%</td>
<td>4.40%</td>
<td>3.70%</td>
<td>3.00%</td>
</tr>
</tbody>
</table>

*Source: Paris MoU* 440, own processing.

The table shows that deficiency rate of Malta as relatively high and Denmark relatively low, while in 2015 the Danish rate is half of the Maltese rate. The percentage of ISM deficiencies varies slightly between flag states and over the years, however it seems that Denmark and the United Kingdom perform a little better.

In addition, several flags were qualifying for the USCG “Qualship 21” programme, as shown in the table below.

**Table 13: USCG QUALSHIP 21**

<table>
<thead>
<tr>
<th>USCGQUALSHIP 21</th>
<th>BEL</th>
<th>DEN</th>
<th>MLT</th>
<th>NL</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Source: USCG.* 441

It is apparent that Malta- as the only investigated flag state- does not comply with the criteria as set by the USCG. 442

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442 See *Supra* subsection 2.8.4.
Moreover a comparison can be made of: A) the survey and certification practices by the flag state and/or RO, B) the RO monitoring programme by the respective flag state and C) the flag state supervising and monitoring programme of individual ships sailing under its flag. This is shown in the tables below.

A) Survey and certification by the flag state and/or RO. It should be noted that for this report a in general assumption has been made that if a survey is carried out by one party (flag or RO), the same party issues the statutory certificate as well.

Table 14: Survey and certification by the flag state and/or RO

<table>
<thead>
<tr>
<th>General</th>
<th>BEL</th>
<th>DEN</th>
<th>MLT</th>
<th>NL</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe Manning</td>
<td>flag</td>
<td>flag</td>
<td>flag</td>
<td>flag</td>
<td>flag</td>
</tr>
<tr>
<td>Tonnage</td>
<td>flag/RO</td>
<td>RO</td>
<td>RO</td>
<td>RO</td>
<td>RO</td>
</tr>
<tr>
<td>ISPS</td>
<td>flag/RO</td>
<td>RO</td>
<td>RO</td>
<td>RO</td>
<td>flag</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cargo ships (non-passenger)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load Line</td>
</tr>
<tr>
<td>Safety Equipment</td>
</tr>
<tr>
<td>Safety Construction</td>
</tr>
<tr>
<td>Safety Radio</td>
</tr>
<tr>
<td>IOPP</td>
</tr>
<tr>
<td>ISM (DoC)</td>
</tr>
<tr>
<td>ISM (SMC)</td>
</tr>
<tr>
<td>MLC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Passenger ships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Ship Safety</td>
</tr>
<tr>
<td>ISM (DoC)</td>
</tr>
<tr>
<td>ISM (SMC)</td>
</tr>
<tr>
<td>MLC</td>
</tr>
</tbody>
</table>

* Combined certificate as per Harmonised System of Certification; Cargo Ship Safety Certificate.

Source: Details provided in Chapter 3, own processing.

As indicated above all flag states have delegated most of the statutory surveys and certification to one of their ROs. Differences can be identified, however Denmark and the Netherlands have delegated also ISM (DoC and SMC) of cargo ships and certification of passenger ships-

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443 Based on the details provided in Chapter 3.
444 A selection of main certificates has been made.
445 Exceptions are e.g. passenger stability approval and MLC surveys carried out by the RO and certificates issued by the flag state.
including ISM- to the ROs, while Belgium and Denmark have delegated these elements partly to the RO and the United Kingdom has not delegated these ISM tasks to the RO.

B) The RO monitoring programme

The RO monitoring programmes have been compared and the results are presented below.

**Table 15: RO monitoring programme**

<table>
<thead>
<tr>
<th></th>
<th>BEL</th>
<th>DEN</th>
<th>MLT</th>
<th>NL</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>RO inspections on DoC witnessed by flag</td>
<td>Yes</td>
<td>No*</td>
<td>Partly (in Malta only)</td>
<td>No</td>
<td>No, carried out by flag</td>
</tr>
<tr>
<td>RO inspections on SMC witnessed by flag</td>
<td>Partly</td>
<td>No*</td>
<td>Partly (in Malta only)</td>
<td>No</td>
<td>No, carried out by flag</td>
</tr>
<tr>
<td>RO monitoring as required by the EU Directive (2009/15/EC)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Analysis of RO survey and audit reports</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: Details provided in Chapter 3, own processing.

All flag states are monitoring the ROs as required by the EU RO Directive (2009/15/EC) and the RO survey and audit reports are analysed to provide both input on the RO performance as well on the performance of the ship and ship-operator. If the RO is performing the ISM audits then Belgium and Malta do (partly) use this opportunity to witness the audit and likewise gain insight on the performance of both the RO and the ship and/or ship-operator.

C) The flag state supervising and monitoring programme

All selected flag states declare to analyse PSC inspection and detention data from Paris MoU, Tokyo MoU and the USCG. In addition RO survey and audit reports are reviewed and the same applies for their own flag state inspection and audit reports. Detentions by PSC are at least followed up through desktop analysis and consultations. Owners are consulted and physical presence on board detained ships may depend on circumstances. For details and other elements see the table below.
Table 16: Flag state supervising and monitoring programme

<table>
<thead>
<tr>
<th></th>
<th>BEL</th>
<th>DEN</th>
<th>MLT</th>
<th>NL</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow up of detentions abroad:</td>
<td>Partly, depends on deficiencies and location.</td>
<td>Yes</td>
<td>Partly, depends on deficiencies.</td>
<td>Partly, depends on deficiencies.</td>
<td>Partly, depends on deficiencies.</td>
</tr>
<tr>
<td>physical presence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional ISM audit of ship and/or</td>
<td>Partly, depends on deficiencies.</td>
<td>Yes</td>
<td>ISM is part of flag state inspection report.</td>
<td>Partly, depends on risk profile company and in case of repetition.</td>
<td>Partly, depends on deficiencies.</td>
</tr>
<tr>
<td>ship-operators’ office after PSC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>detention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk based enforcement inspections</td>
<td>Yes</td>
<td>Yes, on high risk ships and at random.</td>
<td>Yes, on problem ships. And as many as possible.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>in home state</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk based enforcement inspections</td>
<td>Yes</td>
<td>Partly; in limited ports, on high risk ships and at random.</td>
<td>Yes, on selected ships</td>
<td>Partly</td>
<td>Partly, depends on deficiencies.</td>
</tr>
<tr>
<td>abroad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of flag state visit</td>
<td>A least once per year, worldwide.</td>
<td>No fixed interval. Additional inspections and audits for high risk ships, for remaining ships at random.</td>
<td>In general: As many ships as possible depending on location and problem ships 3-6 months independent of location.</td>
<td>Depending on Company performance.*</td>
<td>At least every 2.5 years for low risk vessels (complying with ACS).</td>
</tr>
<tr>
<td>(inspection or audit)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy on ship age (on top of Flag-in procedures)</td>
<td>No</td>
<td>No</td>
<td>Yes, no vessels older than 25 years.</td>
<td>No</td>
<td>85 % of the ships 10 years of younger.</td>
</tr>
</tbody>
</table>

*: Self-imposed quota are: annually for low and very low performing companies, 20% sample of medium- and 10% sample of high performing companies.

Source: Details provided in Chapter 3, own processing.

Additional ISM audits on ships and ship-operators can be carried out after a vessel has been detained, even though the occasions may differ as shown above. Risk based flag state enforcement inspections are performed mostly when vessels call at a port of the flag state and in a lesser degree when the vessel is abroad, which depends on risk type and deficiencies. The frequency in which ships are inspected by the flag state varies from once a year for Belgium, once per 2.5 years for the United Kingdom, at high intervals (3 months up to once per year for high risk ships/companies and at random for Denmark, Malta and the Netherlands (sample

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446 Supplementary to audits required for certification.
size depends on risk type of the company). In addition Malta has set an age limit of 25 years for vessels under its flag, while the United Kingdom has a policy stating that 85% of the ships should be 10 years of younger.

Several good practices can be recognised, like the fact that for example Belgium, Denmark and the Netherlands organise seminars and meetings with ship-owners and ship operators to discuss how the quality of the fleet can be improved.

4.3 Discussion

When analysing the results of the 2 previous paragraphs, could it be concluded that for nearly each of the selected flag states the monitoring and supervision programme is functioning satisfactorily solely on the basis of the improved PSC performance? However tempting this may be, due to the availability of objectively collected data, it ignores the possible effect of the flag state programmes related to enforcement and supervision using risk based selection. These have been in place for just a few years (except for the United Kingdom) and therefore would require evaluation of a longer period of at least 3 years, up to 5 years before conclusions on effect may be drawn.

The issue could be whether the achieved results can be related to the flag state efforts only. As described in Chapter 2, multiple parties play a role in the maritime field and may have influence on one another. The individual or combined efforts of the CS, ROs, ship captains and crews, ship-owners and operators, commercial inspection organisations, P&I clubs and charterers also may have had a positive effect on the PSC results.

In the meantime the maritime world continuously develops and evolves, new legislation is expected to come into force in the near future (such as Ballast Water Management), emission requirements become more strict, bunker prices have dropped, the freight rates remain low and overcapacity is creating a financial burden on ship-owners. How do they remain competitive in this continuously changing playing field? They may be cutting corners and try to save money by seeking Flags of Convenience, “Crew of Convenience” and minimise on maintenance, safety and environmental standards and working conditions. Or do they make efforts to obtain and retain market share by offering quality? Such efforts would also be reflected in improved PSC ratings.
To Take PSC as the benchmark has its limitations as well. The PSC ratings depend on ships inspected in the Paris MoU and other regions. Poor- high risk ships- may not be sailing in this MoU for some time, due to a changed trading area, lay-up due to low charter fees and/or fuel efficiency, be demolished and might therefore give a distorted picture. Besides, ships recently graded as low risk ship are in general not inspected for a period of 2-3 years, a long period in which circumstances can change. Will the ship be maintained for so long for its condition to remain representative? It should be noted that, PSC inspections are random inspections by default, driven by professional judgement of the inspector, and even subsequent inspections within the same MoU may not provide a total picture of the status of the ship.

Still, it is the same PSC data that is used as a main source of information for the flag states, a source which is always ‘out of date’, providing a posteriori information that a vessel of a flag for instance has been detained after a serious breach of safety, working conditions or pollution of the marine environment.

Another point of attention is the influence and power of the ROs. Flag states have in the last decades delegated more and more statutory surveys to the ROs, often also ISM. Indeed EU legislation requires monitoring of the EU-ROs by the flag states. Nearly all ROs recognised by the selected EU flag states have a high ranking on the RO performance list and according the EU Commission report no fines have been issued against the ROs, nor have recognitions been suspended or withdrawn. On the other hand RO related PSC detentions did occur. Again this is an a posteriori result, while understanding that ‘prevented’ (RO related) detentions cannot be measured. The fact that flag states increasingly rely on the ROs because of their global representation, knowledge centers and often involvement in the classification activities of the same ship, makes it harder to suspend or withdraw an RO. Flag states no longer have the capacity or competency to take over methodically.

As mentioned earlier ISM can be regarded as the linking pin or ‘umbrella’ of regulations and its application on board in conjunction with the company/ship operator. In other words it oversees if the technical hardware on board (ship and its equipment) can be managed by the ships’ captain and crew (STCW) -in close cooperation with the ship-operator-, while observing that the appropriate procedures are followed. From this point of view it is comprehensible that several flag states did not - or only partly- delegated the ISM to the ROs; the United Kingdom is performing the relevant audits on passenger and non-passenger ships and offices by itself,

447 See supra subsection 4.1.2.
448 See supra section 4.1.
noting that along with the checks on procedures and manuals also a tour on the ship is performed. Belgium conducts the office audit by themselves while the ship audits can either be carried out by the RO, possibly witnessed by the flag or even performed by the flag. As for Denmark, the flag performs the audits related to passenger ships while the work on the remaining ships is delegated to the ROs.

As mentioned before flag states which have a risk-based selection system as part of the flag state supervision programme do, to a large extent, rely on data provided by PSC (mainly from Paris MoU, Tokyo MoU and USCG) as external source. Own flag state enforcement inspections are also included, however these are in most of the occasions, not covering all ships due to the limited resources of the flag state, in particular in foreign ports. In other words a gap exists and it is the flag states duty to pro-actively supervise all of its ships, so in general more efforts in flag state inspections abroad should be considered.

All selected flag states are listed on the Paris MoU white list. It should be noted that for the calculation of the limit between the grey and white list and the EF an average detention ratio of 7% is used, while the real detention ratio in the Paris MoU has decreased to 3.53% (3 year average). If this detention ratio is simulated in the formulas from 7 to 3.53% then the EF for the United Kingdom for the UK (2015) would change from -1.93 to -0.77 (still on the white list) and for Malta change from -1.16 to +0.02 (just on the grey list).

Another point of view on the existing method of establishing the black, grey and white list is voiced by Ji, et al (2015), suggesting that the focus on detentions only is too limited, unfair for flags with small fleets –because of the ‘bad luck factor’ and compliance should be measured using more weight factors like very serious and serious incidents and as a recommendation also less serious incident and near misses. On a personal note, that would seem a good idea in an ideal world, in which all incidents of all ships are reported by all flag states to IMO GISIS. Only then incident data can be taken into account.

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449 as required by the Directive 2009/21/EC. See supra note 18.
452 For calculations see appendix VIII.
5. Conclusion and recommendations

All involved parties like ships, shipping companies/operators, class, ROs, unions, P&I clubs, ship-and-cargo associations and certainly the flag states play a role and interact - in what may be termed- a maritime melting pot. Consequently an improved ship performance, which is mostly measured by PSC parties, cannot be contributed to the efforts of the flag states alone. It is a mix of circumstances whereby the exact share of the flag state cannot be determined. On the other hand, flag states do have a responsibility and have taken actions. Is it enough, can the situation be improved?

Time is too short in general to clearly identify the best monitoring/supervisory package, as some of the programmes were only recently put into practice; Belgium in 2014, the Netherlands in 2013. Nonetheless, the results of both Belgium (see section 4.1.3 and 4.2) and the Netherlands (see section 4.1.6 and 4.2) show an improvement in detention ratio (both), RO related detentions (Netherlands), deficiency rate (Netherlands), EF (both), deficiency rate and ISM deficiency ratio (Netherlands) and USCG “Qualship 21” qualification (both). Indeed a positive overall result may be achieved in the long run, so a longer “trial period” (5 to 10 years) to gain experience and measurable results is required. At the same time - as discussed in section 4.3- the improved performance of the flag may be a result of the flag state among others, as the flag state is not the only partly in the maritime arena.

The days that flag states performed all statutory surveys by themselves are long gone. It makes sense that- from an efficiency and experience perspective- the RO performs statutory surveys like Load Line, Safety Equipment, Safety Construction and IOPP, as these are of a more technical nature. This is the case for all selected flag states (see section 4.2, table 14). At the same time several states, like the United Kingdom and partly also Belgium and Denmark, do perform certain surveys themselves, especially related to ISM on both the office of the shipoperator (DoC) and the ship itself (SMC) (see section 4.2, table 14). The MLC and ISPS inspections are combined with the ISM inspections as much as possible. If a ship ISM audit is combined with a general inspection (walk around the ship) and technical deficiencies are reviewed in relation with the proper follow up on board and ashore, a comprehensive view is established by the flag state on the ship-operator and its ships (standard for United Kingdom, occasional for other states).

It should be noted that if the ISM certification would be performed as a standard by all states, this would require that all offices and ships are visited worldwide. For non-open registry flag
states, the ship operators offices (annual audit) are mostly located in the state itself and ships are required to be audited ‘only’ twice per 5 years (intermediate and renewal audit). The advantage for the flag states is that they can act pro-actively, through the availability of information on the technical and management operation of the ship at first hand - especially when vertical audit techniques are applied- allowing for immediate response if required.

Moreover the information on the flag state inspections and audits in combination with PSC data is collected by all the selected flag states. In total it gives an overall view for the flag state, which can be analysed and additional risk based inspections of offices and ships are performed. The results of the analyses are used in different ways in case of the selected flag states, poor performing ship-operators and/or ships may be visited and in addition random inspections are carried out, both depending on the inspection capacity and the opportunity to travel abroad (additional travel expenses). The clear disadvantage is that blind spots will occur and timely intervention by the flag state is lacking or may be too late.

The advantage of inspecting all ships (ISM and general inspection) is that it reduces the risk of blind spots occurring, like in methods of only risk based-, or random inspections at convenient ports. In addition, if RO inspections are carried out at the same time, the RO can be monitored simultaneously. A possible disadvantage of focusing on the ISM audit intervals (office yearly, ships twice per 5 years) could be that ship captains and crews and office personal are maximising efforts when an audit is due, ‘play the game’ and return to ‘business as usual’ on completion of the audit, instead of maintaining the condition of the ship\textsuperscript{454}. Obviously when this daily routine is consistently poor, it will show during the next audit or a PSC inspection (as these inspections are unannounced and irrespective of flag inspection and audit schedules), but it would perhaps be ‘too little, too late’.

As it appears, one of the success factors would be to raise the appropriate attitude on board to a continuous high level, irrespective of audits and inspections. Several flag states organise regular meetings with individual companies and also organize seminars where ship-operators and captains discuss issues encountered, in order to raise awareness and increase the incentive of auto-compliance. Another example is that DMA has started a new method for passenger ship survey (starting 1\textsuperscript{st}January 2015), which in addition to the usual technical surveys consists

\textsuperscript{454} This is wider than just technical maintenance, see also ISM Code section 10. See \textit{supra} note 96.
of on-board discussions with crew members on safety in order to create understanding of the safety culture on board.\textsuperscript{455}

Another point of view concerns the ROs: the larger the dependency of the flag states on the ROs, the more important it will be to pro-actively monitor the ROs. Related to this; the more statutory work is delegated to the RO, the more distant the flag state gets from the operation of the ship and ship-operator and vice-versa and the higher the importance of having a pro-active alternative monitoring programme. Or, what about a mix, the best of both?

In conclusion, the best possible scenario for a flag state supervision and monitoring would consist of:
- all ISM audits both of the ship-operator (DoC) and ship (SMC) to be performed by the flag state;
- ship audits to be combined with General Inspection (comparable with PSC inspection);
- other technical statutory inspection and certification to be delegated to the RO
- during ship audits endeavor monitoring of the RO on board
- follow up of all detentions (as required), including visit to the office
- full analysis of available data including PSC (Paris MoU, Tokyo MoU, USCG), flag state inspection and audit, RO reports, accidents (very serious, serious and possibly also less serious and near misses)\textsuperscript{456}
- additional risk based inspections based on the analysis mentioned above, irrespective of the location of the ship and/or office.
- annual meeting with ROs, ship-operators and associations discussing best practices and promoting safety culture on board
- promoting safety culture with the crew on board during flag state inspections and audits

As a second best option ISM audits could partly be delegated to the RO, however the flag should visit the ship (audit and inspection) and office in total at least twice in a 5 year period.

These efforts may not only prevent incidents, detentions and pollution in the future and on top of that it may save money and increase quality as well. If efforts of flag states are combined, using the same optimised monitoring scheme, an even better result may be achieved. Regional measures are usually preferred over unilateral action.

\textsuperscript{456} See supra section 4.3, note 453.
Perhaps the enforcers need to be given a mandate as well – by means of a revision of the EU Flag State Directive 2009/21/EC-, although they may object because of sovereignty and autonomy principles. In the EU Commission report - “on the application of Directive 2009/21/EC on compliance with Flag State requirements”- the Commission stated it “regretted that its original proposal for compliance with flag state requirements had not been taken up by Member States”. This proposal includes for instance in article 12 a detailed outline on annual evaluation and review of the performance of EU flag states.

In these times of free global markets and recession, a policy change of further tightening the enforcements strings will not be favoured by the parties involved. However it will only last to the next major shipping incident (in Europe) to cause the call on new measures to be heard once more. Until that time (and hopefully thereafter) flag states, port states, ROs, other parties and above all the captains and ship-operators will depend on each other and have to cooperate to maintain a high standard on safety, pollution prevention and working conditions, as this will benefit all.

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