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# QUALITY REGISTERS - A FUTURE NETWORK WITH A TOUCH OF CLASS?

## *Kvalitetni registri - mreža budućnosti s otiskom klase?*

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Preview

Pregledni članak

### Summary

*This article discusses the idea of establishing a network of quality registers that would aim to reduce and eventually eliminate substandard shipping on a global scale. Although numerous other approaches with the same goal have already been adopted in practice and have achieved reasonable success, safety in shipping is still overlooked or compromised at times. This is mainly due to the existence of those ship registers, particularly open registries, that do not impose safety requirements on the vessels registered. The lack of regulation is what attracts shipowners because it offers them a financial advantage, but at the ethical expense of sacrificing safety on board.*

*A network of quality registers would connect all the registers that follow and maintain criteria of high shipping standards in an effort to achieve a shift in the attitudes of both flag states and shipowners whereby quality in shipping will come to take priority over financial incentives. Implementation and regulation of such a network are tasks that would appear to be best fulfilled by classification societies. This is due to the sophisticated infrastructure that those societies have as well as the role they already perform. Indeed, the accomplishments of class societies render the phenomenon of a quality register network a viable one. Although bringing this idea to life in practice is likely to meet some difficulties, the potential of its future impact is promising.*

### Sažetak

*Ovaj rad obrađuje zamisao o utemeljenju mreže kvalitetnih registara čija bi svrha bila smanjiti i s vremenom ukloniti brodove neodgovarajućih sigurnosnih standarda. Iako se isti cilj pokušava postići na mnoge druge, donekle uspješne, načine, sigurnost u praksi brodarstva još je uvijek pojam sporedne važnosti. To je uglavnom zbog postojećih brodskih registara, pogotovo onih koji nude podobne zastave a ne zahtijevaju obavezno ispunjenje pomorskih sigurnosnih mjerila. Takav nedostatak u reguliranju je primamljiv brodarima jer im omogućuje financijske prednosti, ali o etičkom trošku žrtvovanja sigurnosnih mjera.*

*Mreža kvalitetnih registara spajala bi sve registre koji se drže kriterija visokih pomorskih standarda. Povrh toga mreža bi nastojala postići promjene u stavovima država koje nude jeftinu i nisko reguliranu registraciju, kao i brodarima, tako da na listi prioriteta u registraciji kakvoća zauzme mjesto nad financijskim pogodnostima. Čini se da bi provedbu i kontrolu takve mreže obavila klasifikacijska društva. Takva društva naime već imaju potrebnu sofisticirnu infrastrukturu i već odavno igraju jednu od ključnih uloga u reguliranju standarda u brodarstvu. Dakako, uspjesi klasifikacijskih društava čine fenomen o mreži registara izvodljivim. Iako bi trebalo uzeti u obzir moguće poteškoće ovakvog pothvata, potencijal njegovog budućeg utjecaja obećava mnogo.*

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## 1. Introduction

### Uvod

The notion that we live in the age of globalisation is not a novelty. There are indeed many variations to the definition of 'globalisation'. Yet, what it means in relation to shipping is that as trade increases so does the demand for maritime transport.<sup>1</sup> Shipping already accounts for about two thirds of world trade and it is thus by far the leading mode of transport. Moreover, since trade in maritime services is one of the most liberalised industries, globalisation is also present through the purchase of its elements such as vessels, insurance and flag registration. Therefore, for the purpose of this article the effects of globalisation are that more ships are navigating the seas, there is a proliferation in the number of registers aiming to offer favourable terms to shipowners world-wide and consequently there is an increased concern about safety in shipping.

Registration is the attribution of national character to a vessel and every vessel must have it.<sup>2</sup> It is by the registering services offered by open registries, also called flags of convenience, that the problem arises. Namely, open registries are set up to earn revenue for the flag state. The terms of registration between open registries differ depending on whether flag states enforce international conventions on safety and employment conditions or not. If they do not shipowners are allowed to cut corners by compromising safety or employment conditions on board. For example, if a certain flag state has not ratified the 1974 Safety of Life at Sea Convention (SOLAS) shipowners may choose to save money on equipment and maintenance. Of course not all flags of convenience pose a threat to safety in shipping. It is only those that do not uphold the standards of good quality shipping that do. It seems that the younger flags of convenience are persistently marketing themselves as providers of a commercial service of ship registration with minimal regulatory burdens. Port State Control is said to have been indirectly responsible for the emergence of new open registries because as it has become more effective the older and the more established flags of convenience have pursued their conformity to internationally accepted standards.<sup>3</sup> Even the smaller registries are starting to clean up their acts. For example, last year Belize has removed 668 vessels from its registry, representing about 50 % of its total registered tonnage, because they did not meet its new quality standards.<sup>4</sup> However the rising standards in shipping have created a lacuna in the flag market for vessels that have been deleted from the improved registers and for shipowners who cannot or do not want to incur the additional expense of better regulation. It is in that lacuna that the low ranking registers, such as Cambodia,

Equatorial Guinea and Saint Vincent and the Grenadines, compete by undermining safety standards.<sup>5</sup>

Several ways in which the problem has been minimised have already been adopted. Here are a few of the most effective approaches. The development of the Port State Control vessel inspection system has proved to be successful since it influenced many open registries to comply with international standards. The International Maritime Organisation (IMO) has been active in promoting safety standards and anti-pollution measures. The recent important developments are the *International Safety Management (ISM) Code Amendment to the Safety of Life at Sea Convention* and the

*Amendments to the Standardisation of Training, Certification and Watchkeeping (STCW) Convention*. The former stretches the accountability for shipping operations to the offices on shore whereas the latter establishes globally accepted minimum standards of competence that the employees on board must fulfil.<sup>6</sup> Furthermore, some national authorities like the United Kingdom, publish the list of unsafe ships in the media.<sup>7</sup> Equasis is known for publishing on the Internet<sup>8</sup> inspection results from numerous classification societies, P&I Clubs and port state control organisations from all over the world.

Despite all the positive measures taken accidents at sea continue to occur due to poor safety standards and freely operating substandard ships. In the quest to eradicate such problems the idea of establishing a network of quality registers has been proposed. Such a network would link the quality registers all over the world and it would aim to preserve and promote high standards in shipping. The pressing questions in relation to such a network however are how would one define 'quality' and how would the network be regulated and enforced. In the search for viable answers, out of all the existing institutions involved in the shipping industry the spotlight immediately falls on classification societies, mainly due to the vibrant role that they are already playing within the industry. That role is examined here so that a conclusion can be drawn on whether classification societies could provide the backbone to the establishment of this likely future phenomenon.

## 2. A Network of Quality Registers

### Mreža kvalitetnih registara

A network of quality registers would represent a universal registration entity that would be created by linking the existing registers that uphold the principles, regulations and standards of high quality shipping. The idea of having such a network at IMO was first proposed by the Dutch in the 1990s. Although the mere flirtation with the idea later has not yielded any concrete initiative

<sup>1</sup> J. Hoffmann and S. Kumar, 'Globalisation: The Maritime Nexus' in C. T. Grammenos (ed.), *The Handbook of Maritime Economics and Business* (2002), Chapter 3 pp.35-64 at p.35.

<sup>2</sup> N. P. Ready, *Ship Registration*, 3<sup>rd</sup> ed. 1998 (Lloyds of London Press, London), at p. 2.

<sup>3</sup> T. Alderton and N. Winchester, 'Globalisation and de-regulation in the maritime industry' *Marine Policy* 26 (2002) pp.35-43, at p.39.

<sup>4</sup> Lloyd's List, 'Drive for quality cuts 668 vessels' 06.02.2002 at [www.lloydslist.com](http://www.lloydslist.com)

<sup>5</sup> *Ibid.* At note 3.

<sup>6</sup> *Ibid.* at note 1, p.55.

<sup>7</sup> *Ibid.* at note 1, p. 55.

<sup>8</sup> The internet address is [www.equasis.org](http://www.equasis.org). The Latin American "VIÑA DEL MAR" Agreement does not participate in this publication.

for a future development, the sophistication of this concept nonetheless corresponds to the concerns and the needs of its time. If such a system was adopted more accidents at sea could be prevented. In the light of the continuous expansion of the ship register sector there appear to exist strong grounds upon which this concept could gain serious impetus in the future. After all, the contemporary developments in the ship register sector over the years have resulted in what has been described as a 'jostling marketplace of national, open, second and even third registers'.<sup>9</sup>

There are however two problems that are currently preventing the realisation of the idea in practice. Firstly, how does one define 'quality'? Secondly how much impact could such a network have on the shipping community and how would it attain and maintain any such impact? Both of these questions are discussed below.

### 3. What is 'quality'?

#### *Kako definirati 'kvalitete'?*

First there is the question of how does one define 'quality' in relation to a register. One suggestion is that a good ship register: should have a maritime administration that is competent to exercise effective control systems; should ensure that STCW certificates have substance to them; and; should have a proper mechanism in place to deal with accident investigations when one of its ships is involved in an accident.<sup>10</sup> The UK Register has however expressed that the simplest method of evaluating a flag state's performance, as a unit for quality, is to consider its detention records across the established port state control areas. The view from the Panamanian Register is that a quality register should have administrative structure, total control of the fleet, an adequate legal structure and political stability.<sup>11</sup> In 1999 the International Transport Federation (ITF) commissioned the Flag State Audit the aim of which was to develop rating criteria for flag states. Although the research has removed the stereotypical conception that all flags of convenience are low quality registries by acknowledging that there are differences within the flags of convenience group themselves<sup>12</sup>, some of the findings of the research appear to be inconsistent with the ship registration sector interpretations. For example, the Liberian Registry, a registry which is widely recognized as run and managed well, ranked at the 23. position which is below the

registers of Cayman Islands (at position 12) and Madeira (at position 8).<sup>13</sup>

Perhaps the key to resolving the meaning of 'quality' lies in distinguishing quality shipping from substandard shipping. Furthermore, the concept of quality as an inherent element in shipping could be promoted by acknowledging and rewarding shipping of high quality and applying penal measures to shipping of poor quality.

Therefore, despite a sense that most variations on the definition of quality generally point in the same direction, there is still a much-felt need for a globally shared, universal definition.

### 4. Enforcement of quality

#### *Provođenje kvalitete*

Secondly, there is the problem of how seriously a quality register network would be taken by the shipping community. Even though the aim of the network would be to distinguish the better registers from the worse, would the shipowners really benefit the most from it?<sup>14</sup> Chris Horrocks, the general-secretary of the International Chamber of Shipping has said that most owners look for a flag state which has ratified the main international conventions and codes. However such considerations are not always the determinants of their choices. Some flag states contain an element of comfort within them. For example, Japanese owners often favour the Panamanian flag since it is commonly approved by the Japanese banks or Greek owners frequently use the Cyprus or Malta flags perhaps for reasons of geographical closeness to them in the Mediterranean. In relation to the example of Japan the potential vital role of the banks in a quality register network is highlighted. An owner's bank could act as a quality enforcement catalyst by putting pressure on shipowners to choose higher quality registers in order to be able to secure future finance. It has however been commented that quality shipowners are associated with quality registers anyway and that it is the bad quality shipowners who pose the problem.<sup>15</sup> The method which would in practice probably be the most effective in targeting the detrimental attitudes of the latter shipowners is that of incentives. The UK Register believes that more shipowners would be influenced if registering with a member of a quality network included tangible, economic advantages like lower insurance premiums and fewer port state control inspections.<sup>16</sup> Furthermore, if a quality network came into existence a certain level of concessions appears to

<sup>9</sup> S. Starbuck, 'Cherry Picking' in *The Baltic* (magazine), B38, December 2001, pp.55-58 at p.55.

<sup>10</sup> *Ibid.* At p.55. These points were revealed to be the main constituents of a good ship register by Chris Horrocks, the secretary-general of the International Chamber of Shipping.

<sup>11</sup> *Ibid.* At p.55 as expressed by Abdiel Diaz, general manager of the Panamanian Register.

<sup>12</sup> T. Alderton and N.Winchester, 'Globalisation and de-regulation in the maritime industry' *Marine Policy* 26 (2002) pp.35-43, at p.38. The authors are members of the Seafarers International Research Centre at Cardiff University which carried out the research.

<sup>13</sup> *Ibid.* At p.39. The authors conducted the research by creating a flag state conformance index (FLASCI) using many various measures of a state's capacity to enforce and maintain a regulatory regime for the ships registered under its flag. 38 flag states were rated against 97 measurements and every flag state considered gained its place on the list on the basis of its FLASCI score.

<sup>14</sup> Starbuck, *op.cit.* at note 9, at p.56 the author poses this question.

<sup>15</sup> *Ibid.* At p.56. This was a comment by David Cockroft of the International Transport Workers Federation.

<sup>16</sup> *Ibid.* At p.57.

be viable in practice especially since the pool of participants in the network would be larger.

evolved to represent the shipping industry's standard for establishing that a vessel is properly constructed and that it is in good condition.

## 5. The Role of the Classification Societies *Uloga klasifikacijskih društava*

It is not only the registers that have to ensure safety at sea. Indeed, the maintenance of safety at sea by the registers is complemented by class societies which ensure that the vessels at sea present as little risk as possible. Indeed the classification societies have been identified as one of the three types of authority that regulate shipping alongside flag states and coastal states. They are the shipping industry's answer to the industry's burden of consistently regulating technical and operational standards of ships. They make rules for ship construction and maintenance and issue Class Certificates for compliance. This means that a Class Certificate is issued to the shipowner when the ship is built and updated by means of regular surveys of the ship. Most flag states today have their survey work dealt with by class societies. Without a Class Certificate it would be difficult to get insurance for the ship. Moreover the commercial value of such a ship would be very low. There is thus an increasing relationship of dependency between registers and class societies which could strengthen the impact of a quality network since it is likely that no class society would want to be associated with a publicly disreputable register. The 'ultimate punishment'<sup>17</sup> for a ship registry would be the loss of its client, that is the ship owner.

In order to understand the role of class societies as the shipping industry's internal regulatory system, one must look at their essential attributes.

Classification societies started forming in the eighteenth century, the very first one being the Lloyd's Register of Shipping. At the heart of the reasoning behind their formation were insurers who sought a confirmation that the ships for which they were providing insurance were in good condition. Since then classification societies have not only attained the status of an intrinsic constituent of the maritime regulatory system but the performance of their activities has become entwined with the regulatory undertakings of governments. In this article the focus is solely on the contemporary role of the classification societies in this matter.

Today their main function is to improve the safety of life and property at sea 'by securing high technical standards of design, manufacture, construction and maintenance of mercantile and non-mercantile shipping'.<sup>18</sup> The Classification Certificate is still the centrepiece of their authority. Although a shipowner is usually under obligation to class his vessel in order to obtain insurance, the Classification Certificate has

## 6. The Three Criticisms on Classification Societies

### *Tri kritike o klasifikacijskim društvima*

Classification societies are self-funding organisations which are often under commercial pressure to maintain a wide enough fee paying membership to cover their costs. This in turn leads to competition between the classification societies themselves to make themselves more attractive to their potential members. Such conduct provoked a criticism that since the societies are paid by the same shipowners on whom they later impose financial penalties as part of their regulatory inspections, those shipowners were taking advantage of the situation and avoiding the discharge of essential maintenance by re-classing to a society with less onerous standards.<sup>19</sup> On that account the question is whether one could exclude the possibility of a threat of such competition between class societies which could lead to an escalation in the number of lower quality class societies which the shipowners would increasingly subscribe to for the convenience of their requirements?

It is further usual for classification societies to do technical inspections on behalf of governments. However, since governments too deal with class rules there is often an overlap between class societies and government regulators which causes confusion as to their roles.

There are now over fifty classification societies established worldwide. The most prominent ten societies together cover over 90 per cent of the global cargo and passenger fleet. They are Lloyd's Register of Shipping, Nippon Kaiji Kyokai, American Bureau of Shipping, Det Norske Veritas, Bureau Veritas, Germanischer Lloyd, China Class Society, Korean Register of Shipping, Registro Italiano Navale and Russian Maritime Register of Shipping. The independent development of these societies has however resulted in inconsistency of rules between them. Thus, for example, if a certain ship design is approved by one society, it may have to be changed to meet the requirements of another. This has led to impracticalities in shipping, in particular, prolongation in the periods of time during which ships are to be built as well as the building costs. Sometimes the financial difference of building costs between the varying schemes of two classification societies amounts to millions of dollars. The need for consistency and coordination is thus ever more pressing particularly with increased involvement and presence of government regulators in the processes of setting up technical standards for ship construction, especially through the International Maritime Organisation (IMO).

<sup>17</sup> *Ibid.* At p.58.

<sup>18</sup> M. Stopford, *Maritime Economics* (Second edition, 2003), Chapter 12 'The Regulatory Framework of Maritime Economics' at p. 425.

<sup>19</sup> *Ibid.* At p.425.

## 7. Advances and Benefits *Napredovanje i prednosti*

It is the last of the three problems outlined above, namely inconsistency, which has been addressed effectively. In 1968 the International Association of Classification Societies (IACS) was set up. It includes the ten largest classification societies listed above and its eleven state members hold about 90 per cent of the world market for classification and statutory services.

The IACS has two goals. The first is to bring consistency and uniformity into the rules developed by classification societies. The second is to establish and maintain a representative group which could interact with other leading regulatory organisations like the IMO.

The fulfilment of these two aims has stood the test of time. Namely, over the last 30 years the IACS has developed over 160 sets of unified criteria. These apply to a panoply of factors including a prescribed age of a ship, the state of repair, minimum longitude strength, loading guidance information, the use of steel grades for various hull members. The IACS also collaborates with other organisations, most significantly the IMO. In 1969 the IACS was granted consultative status by the IMO which enables it to fulfil its role more effectively. Although it has been commented that the position of the IACS as a non-governmental organisation with observer status at the IMO renders its role ambiguous<sup>20</sup>, being between the commercial shipping industry and governments can be a means to improving and strengthening the mechanisms of the IACS.

Another significant benefit which has gone from strength to strength, since the inception of the first classification societies, is that the major societies represent the largest concentration of technical expertise available to the shipping industry. For example, Lloyds Register as the largest classification society has over 3,900 employees of whom half are qualified engineers located in 260 offices world-wide and who perform classification against its own rules of around 6,600 ships per year, statutory certification against international conventions, codes and protocols, a range of engineering services and quality services. Another example is the somewhat smaller American Bureau of Shipping which has 1,475 employees including 300 engineers in 15 offices world-wide and 425 surveyors in 160 locations. By comparison the IMO has about 300 employees as secretariat staff and many of the largest bulk shipping companies rarely have shore-based staff over 100. One can therefore conclude that in respect of such comparisons in the numbers of technical experts employed it is easy to understand why the class societies have developed to function beyond a mere classification role as technical advisers to shipowners and governments.

## 8. The Regulatory Activities of Classification Societies *Reguliranje kroz klasifikacijska društva*

So how do classification societies regulate shipping? Although it is generally accepted that they deservedly occupy a significant place on the pedestal of authority within the regulatory framework of the shipping industry, one must keep in mind the fact that they have no legal authority. There exists no obligation on the shipowner to obtain classification for a ship but classification is usually required to obtain insurance and a ship would be worth very little without it.

The service offered by the classification societies today hinges on two underlying stages – the development and the implementation of rules.

The first stage is concerned with the development of rules and involves the procedures of continuous updating of rules in order to keep up with the changes in marine technology. Although procedures vary most societies develop their rules through a committee which have experts from various scientific disciplines and technical vocations like marine engineers, naval architects, underwriters, builders, operators, owners and machinery manufacturers. This process also considers the activities of the IMO and the IACS unified requirements.

The second stage is the implementation of rules by applying them to shipbuilding and shipping in practice. This stage is comprised of a three-step procedure. The first step is a technical plan review which involves submission of the plans of a particular ship to the classification society for inspection as well as to confirm that the mechanical structure of the ship's design comply with the rules. If the plans are approved as satisfactory they are passed and construction proceeds. Otherwise modifications or explanations may be required on certain matters. The second step is based on surveys which are undertaken during construction to ensure that the accepted plans are implemented, that rules are followed and that practices of good workmanship are used. This extends to the testing of materials and the main parts like boilers, engines and forgings. The third and final step are periodic surveys that are necessary for maintaining the class. For example, merchant ships must be subjected to a set of surveys while in service so as to verify their appropriateness for classification.

The classification procedures for existing ships are generally agreed by the IACS for members and associates. The regulations imposed by Lloyds Register are: hull and machinery special survey - every five years; hull and machinery annual survey (which involves detailed inspection and measurement of the hull) – every year; boiler survey – every two and a half years; dry-docking survey – every two and a half years; tail shaft inspection – every five years. The older the ship is the wider in scope this inspection becomes particularly covering those parts which are susceptible to ageing. For example, as oil tankers age their deck plates are more tested for corrosion. To allow the ship to remain in efficient service throughout, classification societies permit continuous surveys meaning that the ship is under a

<sup>20</sup> *Ibid.* At note 18, at p.426.

scheme of rolling inspections and one fifth of it is covered annually.

The role of classification societies as government representatives has certainly grown in the last few decades as more governments have gained flag state regulatory authority. They mostly deal with loadlines and tonnage measurement as well as the standards of SOLAS (International Convention for Safety of Life at Sea), MARPOL (International Convention for the Prevention of Pollution by Ships) and the IMO on the transportation of dangerous goods.

## 9. Conclusion

### Zaključak

Ship registries should ensure that the risks of unsafe shipping and the operation of substandard vessels are prevented. Unfortunately not all of them do. The situation could be improved by establishing a network of quality registers. Classification societies could develop a set of criteria to determine which registers to work with. This would provide a powerful motivation for many registers to distinguish between substandard ships and quality ships by only accepting the latter on their register and thus contributing to a higher degree of safety. Although the operation of class societies has generated criticism on several levels, much of it has been averted through the successes that the performance of the International Association of Classification Societies has induced. Classification societies certainly seem to have the expertise, the infrastructure and the strategies indispensable in setting and maintaining the quality standards. In that respect they are well equipped to carry and nurture the seeds of a network of quality registers.

The same method could apply to banks which could bring pressure on shipowners to favour some flags over others. The registers themselves can cooperate closely with one another by exchanging information and ideas on the improvement of their services and standards.<sup>21</sup>

A quality network of registers at present remains a mere suggestion. Embarking on a formation of such a network is in reality likely to be hampered by overwhelming complexities mainly due to the magnitude of such an undertaking, that is a large number of flag states to consider and the possible economic disadvantages to both registries and shipowners. As one author has written the shipping industry is a combination of ports, networks and systems and any policy-making, even when it is to control unwanted substandard or safety practices, involves all these components. Accordingly, policy-makers have to understand that links between those components must exist if the policy they create is to be meaningful and is to achieve its goals.<sup>22</sup> In the light of this remark the question posed in the title of whether a network of quality registers would be one with a mere touch of class is answered in

the negative. In effect, it confirms that it would take more than just the involvement and operation of classification societies to develop it and to make it function. Perhaps the essential factor to contribute to the success of such a network would be the extent to which the flag states are willing to respect the international demands for qualitative improvements in shipping and to adapt to them. After all, shipowners are expected to be committed to regulations and rules. Is it therefore not in the least reasonable to expect flag states to show their commitment to quality? Yet, through their efforts which would run parallel to the regular supervision by the institutions such as classification societies, the network can be envisaged as a future triumph in the increasingly globalised shipping industry. So perhaps one day the consideration for safety and quality in shipping will be regarded just as important as the financial concerns that currently still take priority over safety.

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<sup>21</sup> *Ibid.* At note 9, at p.58 as suggested by the author Suzanne Starbuck.

<sup>22</sup> M. Roe, 'Shipping Policy in the Globalisation Era: The Inter-Relationship Between International, Supra-National and National Shipping Policies' in C. T. Grammenos (ed.), *The Handbook of Maritime Economics and Business*, 2002, Chapter 22, at p.498.