

International Max Planck Research School for Maritime Affairs
at the University of Hamburg

Urs Daniel Engels

European Ship Recycling Regulation

Entry-Into-Force Implications
of the Hong Kong Convention



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Dedicated to K. L.

Preface

This study completed in early 2012 and accepted by the Bucerius Law School as doctoral dissertation is the result of research conducted during my time as a scholar of the International Max Planck Research School for Maritime Affairs (IMPRS) under the supervision of *Professor Dr. Doris König*. I am most grateful for her continuous and generous support and for being my academic mentor. I would also like to thank *Professor Dr. Peter Ehlers* for the second opinion and his continuing commitment rendering the IMPRS a truly multifaceted experience.

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Hamburg, Germany
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Urs Daniel Engels

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Abbreviations

AG	Advocate General
A.J.I.L.	American Journal of International Law
Am. Polit. Sci. Rev.	American Political Science Review
Am. Soc’y Int’l L. Proc.	American Society of International Law Proceedings
Am. U. J. Int’l L. & Pol’y	American University Journal of International Law & Policy
Annu. Rev. Env’t & Resources	Annual Review of Environment and Resources
AVR	Archiv des Völkerrechts
AWES	Association of European Shipbuilders and Shiprepairers
B. C. Int’l & Comp. L. Rev.	Boston College International & Comparative Law Review
BIMCO	The Baltic and International Maritime Council
CFI	Court of First Instance
Chi. J. Int’l L.	Chicago Journal of International Law
Colum. J. Transnat’l L.	Columbia Journal of Transnational Law
Cornell Int’l L. J.	Cornell International Law Journal
Denv. J. Int’l L. & Pol’y	Denver Journal of International Law and Policy
DG TREN	Directorate-General Energy and Transport (January 2000 to February 2010)
Duke L. J.	Duke Law Journal
E. J. I. L.	European Journal of International Law
E. P. I. L.	Encyclopedia of Public International Law
EC	European Commission
ECJ	European Court of Justice

Ecology L.Q.	Ecology Law Quarterly
Econ. J.	The Economic Journal
EFTA	European Free Trade Association
ELNI Review	Review of the Environmental Law Network International
EMAS	Eco-Management and Audit Scheme
EMSA	European Maritime Safety Agency
ESM	Environmentally sound management
EuGRZ	Europäische GRUNDRECHTE-Zeitschrift
EuR	Europarecht
Eur. Econ. Rev.	European Economic Review
Eur. J. Int'l L.	European Journal of International Law
Eur. L. J.	European Law Journal
Eur. L. Rep.	European Law Reporter
FOC	Flags of convenience
FS	Festschrift
Ga. J. Int'l & Comp. L.	Georgia Journal of International & Comparative Law
Geo. L. J.	Georgetown Law Journal
Global Gov.	Global Governance
Harv. Int'l L. J.	Harvard International Law Journal
HKC	2009 Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships
HSE	Health, Safety and Environment
Hum. Rts. L. J.	Human Rights Law Journal
I.C.L.Q.	International and Comparative Law Quarterly
IILJ	International Law and Justice
ILA	International Law Association
I. L. M.	International Legal Materials
Ind. J. Global Legal Stud.	Indiana Journal of Global Legal Studies
Int'l Environmental Agreements	International Environmental Agreements
Int'l J. Marine & Coastal L.	The International Journal of Marine and Coastal Law
Int'l J. Occup. & Environ. Health	International Journal of Occupational and Environmental Health
Int'l Org.	International Organization
Int'l Rev. L. Econ.	International Review of Law and Economics
Int'l Sec.	International Security
ISO	International Organization for Standardization
ITLOS	International Tribunal for the Law of the Sea
J. E. E. P. L.	Journal for European Environmental & Planning Law
J. Econ. Lit.	Journal of Economic Literature

J. Econ. Perspect.	Journal of Economic Perspectives
J. Econ. Surveys	Journal of Economic Surveys
J. Envtl. L.	Journal of Environmental Law
J. Int'l Econ. L.	Journal of International Economic Law
J. Int'l. L. & Int'l. Rel.	Journal of International Law & International Relations
J. Legal Stud.	The Journal of Legal Studies
J. Nat. Resources & Envtl. L.	Journal of Natural Resources & Environmental Law
JZ	JuristenZeitung
L. J. Int'l L.	Leiden Journal of International Law
La. L. Rev.	Louisiana Law Review
MARAD	United States Department of Transportation, Maritime Administration
Mich. J. Int'l L.	Michigan Journal of International Law
M.P.E.P.I.L.	Max Planck Encyclopedia of Public International Law
N.Y.U. J. Int'l L. & Pol.	N.Y.U. Journal of International Law & Politics
Nat. Resources & Env't.	Natural Resources & Environment
Nat. Resources J.	Natural Resources Journal
NCEE	National Center for Environmental Economics
NJW	Neue juristische Wochenschrift
Nordic J. Int'l L.	Nordic Journal of International Law
NuR	Natur und Recht
N.Y.I.L.	Netherlands Yearbook of International Law
Ocean Dev. & Int'l L.	Ocean Development & International Law
OEWG	Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
OHSAS	Occupational Health and Safety Assessment Series
Organ. Sci.	Organization Science
ÖZöRV	Österreichische Zeitschrift für öffentliches Recht und Völkerrecht
Pace Int'l L. Rev.	Pace International Law Review
Paris MoU	Paris Memorandum of Understanding
PCIJ	Permanent Court of International Justice
PIC	Prior Informed Consent
Proc. N. A. S.	Proceedings of the National Academy of Sciences of the United States of America

RabelsZ	Rabels Zeitschrift für ausländisches und internationales Privatrecht
RdC	Academie de Droit International Recueil des Cours
RECIEL	Review of European Community and International Environmental Law
Rev. Econ. Stat.	The Review of Economics and Statistics
S. Cal. L. Rev.	Southern California Law Review
SAJ	Shipbuilders' Association of Japan
San Diego Int'l L. J.	San Diego International Law Journal
SchweizJIR	Schweizerisches Jahrbuch für Internationales Recht
Sing. J. Int'l & Comp. L.	Singapore Journal of International and Comparative Law
Suffolk Transnat'l L. Rev.	Suffolk Transnational Law Review
SZIER	Schweizerische Zeitschrift für Internationales und Europäisches Recht
Tex. Int'l L. J.	Texas International Law Journal
TFEU	Treaty on the Functioning of the European Union
Tul. Mar. L. J.	Tulane Maritime Law Journal
U. Chi. L. Rev.	University of Chicago Law Review
U.N.T.S.	United Nations Treaty Series
UCLA L. Rev.	University of California at Los Angeles Law Review
UNCh	United Nations Charter
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
USD	U.S. Dollar
Va. Env'tl. L. J.	Virginia Environmental Law Journal
Va. J. Int'l L.	Virginia Journal of International Law
Vand. J. Transnat'l L.	Vanderbilt Journal of Transnational Law
Vand. L. Rev.	Vanderbilt Law Review
VCLT	Vienna Convention on the Law of Treaties
VVDStRL	Veröffentlichungen der Vereinigung der Deutschen Staatsrechtslehrer
Widener L. Symp. J.	Widener Law Symposium Journal
WSR	Waste Shipment Regulation
Yale L. J.	Yale Law Journal
Yearbook ILC	Yearbook of the International Law Commission
ZaöRV	Zeitschrift für ausländisches öffentliches Recht und Völkerrecht

Introduction

‘Scrapping ships, sacrificing men’ was the title of a compelling series of articles published in the *Baltimore Sun* in 1997.¹ Awarded with the Pulitzer Prize, these investigative reports revealed the dark side of a little-known ‘reckless industry’, illustrated the environmental and social costs involved, and accused, among others, the U.S. Navy and Defense Department of sending its hazardous problems to South Asian beaches.

Almost 12 years later, the International Maritime Organization’s Diplomatic Conference on Ship Recycling adopted the *Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009* (Hong Kong Convention). While the convention has been slammed by environmentalists as ‘already obsolete’,² others emphasise that it strikes the right balance instead³ and describe its adoption not only as a ‘good outcome’ but also herald the ‘birth of a more responsible industry’.⁴

Whether these assessments are valid, whether the green lobby has eventually left its mark on ship recycling,⁵ whether entry-into-force of the convention will still take at least another 5 years,⁶ and whether interim European Union measures are capable of sufficiently tackling the issues at stake will be analysed in this study.

¹ The award-winning articles are available on the Pulitzer Prizes’ website, <<http://www.pulitzer.org/works/1998-Investigative-Reporting>> accessed 31 January 2012.

² Wallis, ‘New convention slammed for legitimising beaching of ships’, *Lloyd’s List*, 18 May 2009, at 1.

³ Adamson, ‘Recycling convention strikes right balance’, *Lloyd’s List*, 21 May 2009, at 4.

⁴ Corbett, ‘A fresh start for vessel recycling’, *Tradewinds*, 29 May 2009, at 2.

⁵ Browne, ‘The greening of ship recycling’, *Fairplay*, 23 April 2009, at 24–25.

⁶ Garfield, ‘Crucial rules for a global industry’, *Tradewinds*, 12 February 2010, at 26.

A. Globalisation and International Governance

Ship recycling, as presently conducted, is inextricably linked to a trend which is commonly referred to as 'globalisation'. Basically, this term relates to the fact that due to technological improvements and societal changes the "mobility of products, capital, labour and services has strongly intensified."⁷ Therefore, some have labelled transport "one of the [...] cornerstones of globalisation."⁸ This development does not only have positive implications as "[t]he increasing technological possibilities provide *inter alia* for producers of waste possibilities to use economies of scale and enable them to look for the place where, for example, incineration costs (or taxes) may be the lowest. This export of environmental problems, leading effectively to a globalization of trade in pollution (more particularly waste), does not go undisputed."⁹ Consequently, with the ship recycling business providing one example of international trade in materials which could be labelled 'waste', also the environmental and social problems caused by and related to ship recycling operations cannot be explained without a particular reference to the wider concept of globalisation.

Although the term 'globalisation' is increasingly used in all professions and aspects of life, its actual meaning is however hard to grasp.¹⁰ Such problems

⁷ Faure, 'Globalization and multi-level governance of environmental harm', in Faure/van der Walt (eds.), *Globalization and Private Law* (2010), 383, at 389.

⁸ Hoffmann/Kumar, 'Globalisation – the Maritime Nexus', in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), at 35.

⁹ Faure, 'Globalization and multi-level governance of environmental harm', in Faure/van der Walt (eds.), *Globalization and Private Law* (2010), 383, at 389.

¹⁰ Many scholars refer to 'globalisation' with specific regard to the period since the end of the Cold War; see Delbrück, 'Globalization of Law, Politics, and Markets', 1 *Ind. J. Global Legal Stud.* 9 (1993), at 9; see also Kadelbach, 'Völkerrecht und Ethos im Zeitalter der Globalisierung', in Assmann/Sethe (eds.), *Recht und Ethos im Zeitalter der Globalisierung* (2004), p. 37, 38; others have generally labelled what has been experienced after World War II in the fields of law, politics and markets a process of 'internationalisation'; cf. Neff, 'A Short History of International Law' in Evans (ed.), *International Law*² (2006), p. 29, 50: "There scarcely seemed any walk of life that was not being energetically 'internationalized' after 1945 [...]"; Delbrück, however, explicitly warns about confusing the concept of globalisation with internationalisation: "Internationalization refers to cooperative activities of national actors on a level beyond the nation state but in the last resort under its control. Globalization is of a different kind. It is a multifaceted phenomenon that escapes easy definition. [...] globalization has been fully recognized as a specific feature of international relations, which impacts the political, economic, ecological, social and cultural life of societies around the globe in an unprecedented manner.", Delbrück, 'Structural Changes in the International System and its Legal Order: International Law in the Era of Globalisation', 11 *SZIER* 1 (2001), at 13, 14; cf. Kiss, 'Economic Globalization and the Common Concern of Humanity', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), p. 3: "'Globalization' [...] refers to the interconnections and consequent interdependence of peoples and governments throughout the world."; cf. also Shelton, 'The Impact of Economic Globalization on Compliance', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), p. 35: "Globalization is often characterized as 'the intensification of economic, political, social and cultural

notwithstanding, the concept of globalisation—as understood here—refers to an indistinct, but at the same time breath-taking process of primarily economic, but also political, environmental and ultimately psychological internationalisation characterised by

[...] an increase of transnational actors with political negotiation power, global threats, challenges beyond the capacity of states to regulate, and far-reaching changes in societal and political interaction.¹¹

With regard to its economic implications, globalisation encompasses the growing influence of large, multi-national organisations and their shifting focus on competition in local and national markets to global fora.¹² This notion is accompanied by a large number of negative repercussions including job losses in industrialised countries as well as the (alleged) promotion of social injustice and contribution to workers' exploitation in the less industrialised world.¹³ In a political sense, the term refers to a shift of autonomy, responsibility and potentially sovereignty from states' to the international or transnational level,¹⁴ involving more and more non-state actors.¹⁵ Regarding the environmental impact of globalisation, the industrial revolution and subsequent technical developments have transformed environmental

relations across borders'."; Berman, 'From International Law to Law and Globalisation', 43 *Colum. J. Transnat'l L.* 485 (2005), at 552: "[...] the intensification of global interconnectedness, in which capital, people, commodities, images, and ideologies move across distance and physical boundaries with increasing speed and frequency".

¹¹ Hobe, 'The Era of Globalisation as a Challenge to International Law', 40 *Duq. L. Rev.* 655 (2002), at 656; see also Dicke, 'Erscheinungsformen und Wirkungen von Globalisierung auf universaler und regionaler Ebene sowie gegenläufige Renationalisierungstendenzen', 39 *Berichte der Deutschen Gesellschaft für Völkerrecht* 13 (2000), at 21; Delbrück agrees in that one typical element of globalisation is its global effects transcending the control capacity of the nation-state, see Delbrück, 'Structural Changes in the International System and its Legal Order: International Law in the Era of Globalisation', 11 *SZIER* 1 (2001), at 31; see also Shelton, 'The Impact of Economic Globalization on Compliance', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), 35, at 35–39.

¹² Shelton, 'The Impact of Economic Globalization on Compliance', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), p. 35, 36; in this context, see also Basedow, 'The Effects of Globalization on Private International Law', in Basedow/Kono (eds.), *Legal Aspects of Globalization* (2000), p. 1, 2–4; Hauschka, 'Internationalisierung der Wirtschaft und ordoliberales Rechtsdenken', 21 *Rechtstheorie* 374 (1990), at 378–380.

¹³ Kaufmann, *Globalisation and Labour Rights* (2007), at 8–10.

¹⁴ Shelton, 'The Impact of Economic Globalization on Compliance', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), p. 35, 37–38; see also Kunugi, 'Challenges Posed by Globalization and Synergistic Responses: Multilateral Institutions in Transition', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), p. 13, 28–29; cf. Kadelbach, 'Völkerrecht und Ethos im Zeitalter der Globalisierung', in Assmann/Sethe (eds.), *Recht und Ethos im Zeitalter der Globalisierung* (2004), p. 37, 40–41.

¹⁵ For a thorough analysis of the past involvement of non-governmental organisations in international governance, see Charnovitz, 'Two Centuries of Participation: NGOs and International Governance', 18 *Mich. J. Int'l L.* 183–286 (1997).

pollution issues from a local and regional problem to an increasingly international concern. Furthermore, relocation of industries has led to an externalisation of the environmental costs of production,¹⁶ i.e. a separation of the benefits derived from a good on the one side from the associated environmental costs on the other.¹⁷ However, environmental globalisation has also witnessed a huge expansion of the international environmental framework. The adoption of the Hong Kong Convention provides but one example. Such specific developments, among many others, have ultimately facilitated a global psychological vision of interdependency, borderless mobility and openness which carries both opportunities¹⁸ and threats¹⁹ for humanity.²⁰

One of the decisive preconditions of this process, apart from the industrial revolution and new information technologies, was a change both in the attitude of states towards each other as well as within the international society itself. Whereas states were supposed to be the only relevant actors on the international stage in the early days of modern international law, they began to realise in the late nineteenth century that they not only had to make room for several other performers, but also had to reconsider their own status.²¹ Consequently, the international law of states

¹⁶ European Commission, 'Green Paper on better ship dismantling, EU-doc. COM(2007) 269, at 7; see also Rousmaniere/Raj, 'Shipbreaking in the Developing World: Problems and Prospects', 13 (4) *Int'l J. Occup. & Environ. Health* 359 (2007), at 359.

¹⁷ Yang/Percival, 'The Emergence of Global Environmental Law', 36 *Ecology L.Q.* 615 (2009), at 641–642; for further information on trade of waste and hazardous substances being a rather bizarre example for such an externalisation, see Redgwell, 'Regulating Trade in Dangerous Substances: Prior Informed Consent under the 1998 Rotterdam Convention', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), pp. 75–88.

¹⁸ Hobe recognises quite strong indications for a paradigm change from an international law of cooperation to an international law of the globalised world: Hobe, 'Die Zukunft des Völkerrechts im Zeitalter der Globalisierung', 37 *Archiv des Völkerrechts* 253 (1999), at 279; see also Raskin, *Great Transition* (2002), who predicts a global hierarchy of institutions replacing the existing system of sovereign states as the primary international political community in the future; in this context, see Aman, 'The Limits of Globalization and the Future of Administrative Law: From Government to Governance', 8 *Ind. J. Global Legal Stud.* 379 (2001), at 389; Baylis/Smith/Owens, *The globalization of world politics*⁴ (2008), at 7: "A globalised world is one in which political, economic, cultural, and social events become more and more interconnected [...] the world seems to be 'shrinking', and people are increasingly aware of this".

¹⁹ Cf. Kunugi, 'Challenges Posed by Globalization and Synergistic Responses: Multilateral Institutions in Transition', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), p. 13: "[...] the view is widely shared that it [globalisation] generates serious threats to the global ecosystems, economic and social stability and human security"; cf. also Kadelbach, 'Völkerrecht und Ethos im Zeitalter der Globalisierung', in Assmann/Sethe (eds.), *Recht und Ethos im Zeitalter der Globalisierung* (2004), p. 37, 38–39; Kaufmann, *Globalisation and Labour Rights* (2007), at 7–8.

²⁰ Cf. UN GA, *Globalization and its Impact on the Full Enjoyment of all Human Rights*, UN-doc. A/55/342 (31 August 2000).

²¹ Delbrück, 'Structural Changes in the International System and its Legal Order: International Law in the Era of Globalisation', 11 *SZIER* 1 (2001), at 13.

that had played a primarily coordinating role gradually became an international law of cooperation²² focusing not only on states but also on individuals, non-governmental organisations and multi-national corporations.²³ Without this change of setting, there would have been no significant increase in the numbers of extra-territorial activities due to a lack of mutual support and cooperation. The development of the international legal system during the last two centuries was one crucial *conditio sine qua non* for economic, legal, political and social development after World War II.²⁴

Past experiences, especially from World War II, raised the awareness of a number of countries to the importance of international governance and cooperation, notwithstanding the negative experiences associated with the defunct League of Nations.²⁵ The founding of the United Nations in 1945 and international recognition of the UN Charter had been accompanied by the hope that the victorious allies would perpetuate their wartime cooperation in order to create a new world order and sustain peace.²⁶ The descent of the Iron Curtain across Europe and the Cold War brought these political hopes to an abrupt end as the rivalry between the two blocs succeeded in paralysing all cooperation efforts. However, in non-political spheres, the international community witnessed a huge increase, not only in

²² For further references, see Dahm/Delbrück/Wolfrum, *Völkerrecht*² (vol. I/1, 1989), at 5–27.

²³ This development mirrors a conflicting relationship between state sovereignty and the progress achieved by the human rights movement. This relationship has been put under particular pressure during the last 80–100 years, as the traditional sovereignty of states has been relativised three times during that period: the implementation of the prohibition on the use of force in international law terminated the customary *liberum ius ad bellum* being the most excessive and articulate element of state sovereignty; the integration of cooperative elements in state practice gave access to formerly exclusively domestic affairs both to non-governmental and international organisations as well as to interested third states and was accompanied by a general trend towards codification of international law; and finally, the implementation and enforcement of human rights has been increasing the awareness of individual rights putting these matters explicitly on the global agenda; see, e.g., the UN Friendly Relations Declaration, UN-doc. A/Res/25/2625; with regard to the transformation or modification of state sovereignty, see von Bogdandy, 'Demokratie, Globalisierung, Zukunft des Völkerrechts', 63 *ZaöRV* 853 (2003), at 867–876; Opsahl, 'Instruments of Implementation of Human Rights', 10 *Hum. Rts. L. J.* 13 (1989), at 19–20, 24; see also Riedel, 'The Progressive Development of International Law at the Universal and Regional Level', in Wolfrum (ed), *Strengthening the World Order* (1990), 115, at 116–119; Charney, 'Universal International Law', 87 *A.J.I.L.* 529 (1993), at 529–532; Bleckmann, *Völkerrecht* (2001), at 237–241; according to a different approach international law simply is the result of each state selfishly pursuing its own interests, which renders it completely impossible for state sovereignty to be shaped by international law, see Goldsmith/Posner, *Limits of International Law* (2005), at 3–14.

²⁴ See Kiss, 'Economic Globalization and the Common Concern of Humanity', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), at 3.

²⁵ Delbrück, 'Structural Changes in the International System and its Legal Order: International Law in the Era of Globalisation', 11 *SZIER* 1 (2001), at 9, 10.

²⁶ Kiss, 'Economic Globalization and the Common Concern of Humanity', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), 3, at 4; Shaw, *International Law*⁶ (2008), at 30–31.

international law-making, but also regarding the number and range of topics considered.²⁷ Furthermore, cross-border interests of specific states or groups of states resulted in an intensification of cooperation both with each other²⁸ and with nongovernmental actors, the result of which was an increasingly elaborate body of international law and custom as well as “[...] new forms of domestic and international governance that rely [...] on nongovernmental (private) actors to carry out public responsibilities”.²⁹

Both by opening the international stage to other actors and by improving cooperation, not only on a state-to-state level, but also with international and nongovernmental organisations, a significant shift took place away from “government to governance”.³⁰

The concept of governance itself has been changing over the years.³¹ Whereas in the first decades of the Cold War questions regarding balance of military power, with specific regard to non-proliferation and disarmament took centre stage, other issues have become more and more important during the last 20 to 30 years. These issues included, among many others, topics such as communication, transport, development, commerce, and environment. In other words: Whereas states were exclusively engaged with issues that alluded to topics like sovereignty and statehood and the coexistence of states in the early days of international cooperation, more and more originally nation-state competencies have been ceded to

²⁷ Beginning in the early and mid-1960s, indications of a change in attitude became more and more apparent: with regard to water-related issues, see, e.g., the International Convention for the Prevention of Pollution of the Sea by Oil (1954), the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (1972), and – last but not least – the Law of the Sea Convention was finally codified in 1982 after an immense tour de force lasting from 1973 to 1982; in the area of biological diversity, see the Convention on Wetlands of International Importance especially as Waterfowl Habitat (1971), the Convention for the Protection of the World Cultural and Natural Heritage (1972), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973); beginning in the mid-1980s, global concern shifted to atmospheric issues: in this context, see, e.g., the Convention on the Protection of the Ozone Layer (1987), the United Nations Framework Convention on Climate Change (1992), and the [Kyoto] Protocol to the United Nations Framework Convention on Climate Change (1997); regarding waste-related issues, there are: the Dumping Convention (1972), the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989), and the Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (1998).

²⁸ Breitmeier, *The Legitimacy of International Regimes* (2008), at 12: “In the era of globalization effective governance can only be accomplished if states will coordinate their policies and collaborate”.

²⁹ Aman, ‘The Limits of Globalization and the Future of Administrative Law: From Government to Governance’, 8 *Ind. J. Global Legal Stud.* 379 (2001), at 381.

³⁰ Cf. Aman, ‘The Limits of Globalization and the Future of Administrative Law: From Government to Governance’, 8 *Ind. J. Global Legal Stud.* 379 (2001), at 383.

³¹ Basedow, ‘The Effects of Globalization on Private International Law’, in Basedow/Kono (eds.), *Legal Aspects of Globalization* (2000), 1, at 5–6.

international organisations and thus risen to the international level during the last 50 years.³²

The international community in particular has come to realise that the environmentally negative effects of globalisation have reached a level that calls for concerted action on a global scale, and thus the states' attitude towards environmental governance and regulation has changed significantly.³³ The regulation of ship recycling is but one example for this overall process.

B. Environmental Regulation

The following introduction will be threefold: First, it will give a definition of the term 'environmental regulation'; second, in order to understand the present *status quo* it will present a short synopsis of the history of international environmental regulation; and finally, it will sum up general related trends which have been accompanying the evolution of global environmental regulation for the last 40 years. In so doing, it will provide an overview on similar regulatory developments and tendencies which have paved the way for the regulation of ship recycling.

By definition, regulation refers to an institutional mechanism that controls, leads or induces human and/or societal behaviour by some means in a specific way.³⁴ Hence, environmental regulation attempts to either reduce, minimise or put an end

³² Steffek, 'The Legitimation of International Governance', 9 E.J.I.L. 249 (2003), at 252, 267; cf. Delbrück, 'Structural Changes in the International System and its Legal Order: International Law in the Era of Globalisation', 11 SZIER 1 (2001), at 31–33; Zürn, *Regieren jenseits des Nationalstaates* (1998), at 165–168; cf. also Chayes/Chayes, *The New Sovereignty* (1995), at 250: "[...] at the end of World War II, 1200 organisations came to San Francisco to participate in the proceedings for the adoption of the United Nations Charter. Their main objective was to ensure that the Charter would not be confined to international security matters but would include provisions dealing with economic, social, and cultural issues".

³³ Delbrück, 'Globalization of Law, Politics, and Markets', 1 Ind. J. Global Legal Stud. 9 (1993), at 27; Kiss/Shelton, *International Environmental Law*² (2000), at 64; see also Kiss, 'Economic Globalization and the Common Concern of Humanity', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), p. 3, 4; Tomuschat, 'Möglichkeiten und Grenzen der Globalisierung', in Schwarze (ed.), *Globalisierung und Entstaatlichung des Rechts* (2008), p. 21, 23; Faure, 'Globalization and multi-level governance of environmental harm', in Faure/van der Walt (eds.), *Globalization and Private Law* (2010), 383, at 392–393; Hahn/Richards, 'The Internationalization of Environmental Regulation', 30 Harv. Int'l L. J. 421 (1989), at 423: "[...] the growing perception of the global nature of many environmental problems has revealed the shortcomings of voluntary and national responses".

³⁴ For a general perspective, see Baldwin/Scott/Hood, 'Introduction', in Baldwin/Scott/Hood (eds.), *A Reader on Regulation* (1998), 1, at 3–4; for an economic perspective, see, e.g., Keeler/Foreman, 'regulation and deregulation', in Newman (ed.), *The New Palgrave Dictionary of Economics and the Law* (1998); for a legal perspective, see, e.g., Wessel/Wouters, 'The Phenomenon of Multilevel Regulation: Interactions between Global, EU and National Regulatory Spheres', in Follesdal/Wessel/Wouters (eds.), *Multilevel Regulation and the EU: the Interplay between Global, European and National Legal Processes* (2008), 9, at 11–12.

to pollution of the environment by the enactment and subsequent enforcement of relevant legislative or administrative measures. As these measures cannot be enforced at the international level due to the general legal structure of the international society, states typically sign and ratify multilateral environmental agreements and enact national legislation in order to implement the necessary obligations and provisions accordingly.³⁵ The exact method of subsequent implementation is always also a question of technique, i.e. how the common objective is to be approached. Usually, rather traditional forms of direct or 'command and control' regulation³⁶ are distinguished from more modern approaches facilitating and utilising positive as well as negative economic incentives.^{37,38} This dichotomy, however, has been diluted by numerous proposals during the last years which aimed at introducing new regulatory approaches.³⁹

With regard to the history of global environmental regulation, two landmark conferences must be discussed: the 1972 United Nations Conference on the Human

³⁵ However, it would be wrong to assume that those two levels are separated; see Stewart, 'The Global Regulatory Challenge to U.S. Administrative Law', 37 N.Y.U. J. Int'l L. & Pol. 695 (2005), at 703: global regulation "[...] functions through a web of interactions and influences, horizontal, vertical, and diagonal, among a diverse multiplicity of different regimes and actors, resembling nothing so much as a Jackson Pollock painting".

³⁶ 'Command and control' regulation techniques first of all provide for specific environmental standards which are to be applied in a uniform manner; subsequently, the control and enforcement of these standards is assigned to, administrated and executed by public authorities or other legal entities entitled to do so.

³⁷ Incentive based economic regulation approaches have been introduced as it became obvious that existing regulation techniques had failed to significantly improve the situation; the main idea behind incorporating economic policy instruments is to provide for certain market-based incentives which are supposed to guide human behaviour in a way that limits environmentally unfriendly procedures, mechanisms and products more effectively; cf., e.g., Annex II to the Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-Based Sources (24 May 1985), UN-doc. UNEP/GC/13/18/II.

³⁸ For a more detailed overview see Sands, *Principles of International Environmental Law*² (2003), at 155; Wolfrum, 'Means of Ensuring Compliance with and Enforcement of International Environmental Law', 272 RdC 9 (1998), at 110–135; Redgwell, 'Multilateral Environmental Treaty-Making', in Gowlland-Debbas (ed.), *Multilateral Treaty-Making* (2000), 89, at 103–104; Miller, 'Environmental Policy in the New World Economy', 3 Widener L. Symp. J., 287 (1998), at 295 et seq.; see also Miller, 'Environmental Regulation, Technological Innovation, and Technology-Forcing', 10 Nat. Resources & Env't 64 (1995), at 66; Hahn/Stavins, 'Incentive-Based Environmental Regulation: A New Era from an Old Idea?', 18 Ecology L.Q. 1 (1991), 1–15; Wessel/Wouters, 'The Phenomenon of Multilevel Regulation: Interactions between Global, EU and National Regulatory Spheres', in Follesdal/Wessel/Wouters (eds.), *Multilevel Regulation and the EU: the Interplay between Global, European and National Legal Processes* (2008), 9, at 23.

³⁹ See, e.g., the Ministerial Declaration adopted at the Second World Climate Conference (7 November 1990): "We recommend that relevant policies make use of economic instruments appropriate to each country's socio-economic conditions in conjunction with a balanced mix of regulatory approaches."

Environment (1972 Stockholm Conference)⁴⁰ and the 1992 United Nations Conference on Environment and Development (1992 Rio Conference).⁴¹ The former has been described as a ‘turning point’⁴² or ‘milestone’⁴³ in the history of international environmental regulation because it succeeded in drawing the public’s attention to global environmental problems for the first time.⁴⁴ Furthermore, it ultimately resulted in the creation of the United Nations Environment Programme (UNEP).⁴⁵ The latter conference is particularly recognised for its stimulation of global awareness regarding environmental issues.⁴⁶ Additionally, terms such as ‘sustainable development’⁴⁷ as well as notions of environmental equity⁴⁸ were made the focus of international environmental policy.⁴⁹

At the same time as these major developments, innumerable little steps of both symbolic and pragmatic nature have occurred since states gathered at the 1972 Stockholm Conference. To begin with, the attitude of states originally perceiving environmental issues as merely technical matters has completely changed over time due to the growing importance of environmental matters at international

⁴⁰ For further information, see the report of the United Nations Conference on the Human Environment (1973) including chapter I, the Stockholm Declaration on the Human Environment (16 June 1972), UN-doc. A/CONF.48/14/Rev.1.

⁴¹ For further information, see the report of the United Nations Conference on Environment and Development (12 August 1992) including Annex I, the Rio Declaration on Environment and Development (14 June 1992), UN-doc. A/CONF.151/26(Vol. I); for further information in this context, see also Sand, ‘UNCED and the Development of International Environmental Law’, 8 J. Nat. Resources & Envtl. L. 209–228 (1992–93).

⁴² Fitzmaurice, ‘International Protection of the Environment’, 293 RdC 9 (2001), at 33.

⁴³ McConnell, ‘Inter-Agency Collaboration or Inter-Agency Competition – A Challenge for the UN System’ in Kirchner (ed.), *International Marine Environmental Law* (2003), 69, at 75.

⁴⁴ See Delbrück, ‘Structural Changes in the International System and its Legal Order: International Law in the Era of Globalisation’, 11 SZIER 1 (2001), at 18; Young, ‘Introduction’, in Young/Demko/Ramakrishna (eds.), *Global Environmental Change and International Governance* (1996), at 1; Kiss, ‘The Destiny of the Principles of the Stockholm Declaration’, in Nordquist/Moore/Mahmoudi (eds.), *The Stockholm Declaration and Law of the Marine Environment* (2003), 53, at 55.

⁴⁵ See UN GA Resolution 2997 (XXVII) of 15 December 1972, UN-doc. A/Res/27/2997; see also Birnie, ‘Impact on the Development of International Law on Cooperation: the United Nations Law of the Sea, Straddling Stocks and Biodiversity Conventions’, in Nordquist/Moore/Mahmoudi (eds.), *The Stockholm Declaration and Law of the Marine Environment* (2003), 85, at 89–90.

⁴⁶ Stewart, ‘Environmental Regulation and International Competitiveness’, 102 Yale L. J. 2039 (1993), at 2040.

⁴⁷ Sand, ‘UNCED and the Development of International Environmental Law’, 8 J. Nat. Resources & Envtl. L. 209 (1992–93), at 228.

⁴⁸ See, e.g., Principles 3, 5 and 7 of the Rio Declaration on Environment and Development, Annex I to UN-doc. A/CONF.151/26(Vol. I).

⁴⁹ Andresen/Hey, ‘The Effectiveness and Legitimacy of International Environmental Institutions’, 5 Int’l Environmental Agreements 211 (2005), at 216; Stewart, ‘Environmental Regulation and International Competitiveness’, 102 Yale L. J. 2039 (1993), at 2040; whereas the general public became aware of the concept of ‘sustainable development’ at the 1992 Rio Conference for the first time, the term was actually coined by the Brundtland Report (4 August 1987), UN-doc. A/42/427.

conferences with almost global participation. Until the 2002 World Summit on Sustainable Development⁵⁰ promoted the idea that environmental governance should actively involve other stakeholders in implementation procedures in addition to states,⁵¹ the process of changing perceptions had already been fostered by an ever-increasing number of non-governmental organisations attempting to promote environmental awareness and global environmental discourse.⁵² In the course of tackling environmental problems, non-governmental organisations have always played a considerable role, not only in terms of their numbers, but also with regard to an intense level of interaction between their representatives and domestic officials, advisors and state delegates, both at conferences⁵³ and elsewhere.⁵⁴ In this process, equity-related aspects have become more and more important after the 1992 Rio Conference, which eventually added principles such as the 'Precautionary Principle', 'Polluter Pays', 'Common But Differentiated Responsibility' and 'Intergenerational Equity' to the global environmental conscience.⁵⁵ In the recent past, the number of signed and ratified multilateral environmental agreements has exploded,⁵⁶ as has the number of related international institutions.⁵⁷

⁵⁰ For further information, see the report of the United Nations' World Summit on Sustainable Development (8 January 2003), UN-doc. A/Conf.199/20 and UN-doc. A/Conf.199/20/Corr.1.

⁵¹ Bernstein, 'Legitimacy in Global Environmental Governance', 1 J. Int'l. L. & Int'l. Rel. 139 (2004–2005), at 149.

⁵² See *ibidem*, at 148–149; the 1972 Stockholm Conference was allegedly attended by over 400 inter-governmental and non-governmental organisations; the 1992 Rio Earth Summit was already host to about 1,400 representatives from more than 650 non-governmental organisations; Delbrück, 'Structural Changes in the International System and its Legal Order: International Law in the Era of Globalisation', 11 SZIER 1 (2001), at 19; Nowrot, 'Legal Consequences of Globalization: The Status of Non-Governmental Organizations under International Law', 6 Ind. J. Global Legal Stud. 579 (1999), at 590–592; Chayes/Chayes, *The New Sovereignty* (1995), at 250–251; Charnovitz, 'Two Centuries of Participation: NGOs and International Governance', 18 Mich. J. Int'l L. 183–286 (1997), at 265.

⁵³ Delbrück, 'Structural Changes in the International System and its Legal Order: International Law in the Era of Globalisation', 11 SZIER 1 (2001), at 19; Nowrot, 'Legal Consequences of Globalization: The Status of Non-Governmental Organizations under International Law', 6 Ind. J. Global Legal Stud. 579 (1999), at 590–592; Kiss, 'Environmental Information and Public Participation in Decision-Making', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), pp. 193–209.

⁵⁴ For an example of an environmentally successful intervention of a non-governmental organisation, see Chayes/Chayes, *The New Sovereignty* (1995), at 259: "In October 1993, Russia dumped hundreds of tons of low-level nuclear waste into the Sea of Japan. Although the level of radioactivity was low enough that the action was not prohibited by the London Convention, it violated a moratorium in effect. Greenpeace International revealed the Russian action [...]. As a result of the adverse publicity, Russia called off announced plans for a second discharge, and [...] a permanent ban on all nuclear waste dumping was adopted at the IMO meeting in November 1993".

⁵⁵ For further information on some of these, see *infra* chapter "European Ship Recycling Regulation", B.I.3 (pp. 164 et seq.).

⁵⁶ See, e.g., UNEP's chronological list of environmental agreements concluded: <http://www.unep.org/Law/Law_instruments/index_complete_list.asp> accessed 31 January 2012.

⁵⁷ For an identification of five different types of international regulatory regimes being engaged in global regulation, see Stewart, 'The Global Regulatory Challenge to U.S. Administrative Law', 37 N.Y.U. J. Int'l L. & Pol. 695 (2005), at 700–702.

Nonetheless, it would be incorrect to assert that the international community would be rendered any assistance available internationally with a view to successfully addressing the global character of environmental problems. Quite the contrary, the more substantial an international environmental agreement became, the more it typically still lacked support.⁵⁸ One of the key contributors to this dilemma has been an unsolved conflict related to questions of environmental justice: With regard to major environmental problems like ozone depletion and climate change, the consumption of industrialised nations is the primary cause.⁵⁹ Taking this into account, the economic effects of international environmental regulation have always played an important role for the drafting, ratification and subsequent implementation of environmental agreements.⁶⁰ This, in turn, is the key reason for the level of research conducted on different regulation approaches as well as on institutional design during recent years.⁶¹

In general, with globalisation clearing the way for international governance, this interdependence has facilitated the development of global environmental regulation during the last decades. The almost global concern regarding ship recycling in particular, which primarily has adverse effects on South-East Asian environment and population, serves as a prime example for the increased awareness in this context.

⁵⁸ See, e.g., Miller, 'Environmental Policy in the New World Economy', 3 *Widener L. Symp. J.* 287 (1998), at 288.

⁵⁹ *Ibidem*, at 288; Kosloff, 'Linking Climate Change Mitigation with Sustainable Economic Development: A Status Report', 3 *Widener L. Symp. J.* 351 (1998), at 354.

⁶⁰ Cf. Wiener, 'On the Political Economy of Global Environmental Regulation', 87 *Geo. L. J.* 749 (1999), at 752; see also *infra* chapter "Entry-Into-Force Provision", D.II (pp. 76 et seq.).

⁶¹ A comparison of the regulation analyses of major environmental conventions of the last twenty years reveals a number of debatable successes as well as apparent flaws; the 1987 Montreal Protocol [Montreal Protocol on Substances That Deplete the Ozone Layer (16 September 1987), 1522 U.N.T.S. 3.] serves as quite a success story for several reasons: its negotiations were primarily promoted by nations responsible for the greater part of ozone layer depletion; the indirect threat of trade sanctions or trade obstacles for products still containing banned elements served not only as an incentive to place a ban on domestic production but also to ratify the convention in general; the looming isolation of countries like China and India eventually led to the additional 1990 London Agreement [Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer (29 June 1990), 30 *I. L. M.* 537–554 (1991)] which evidenced a change of mind regarding financial support for developing countries in order not to undermine the convention and which fostered a spirit of cooperation in environmental issues; cf. Miller, 'Environmental Policy in the New World Economy', 3 *Widener L. Symp. J.* 287 (1998), at 288–289.

C. Methodology and Outline

The ‘basic methodological sympathy’ of this thesis lies with what CHAYES/CHAYES have labelled an approach being “[...] primarily descriptive, with prescriptive overtones”.⁶² More precisely, the approach relies on secondary materials on both procedural aspects of treaty ratification and substantial insights into the Hong Kong Convention as well as similar international treaties. First and foremost, this study makes use of substantial scholarly analysis in the field of treaty ratification. With particular regard to the Hong Kong Convention, this analysis is primarily based upon the official documents of the working groups prior to and during the Diplomatic Conference on Ship Recycling in Hong Kong in May 2009. These sets of information are complemented by first-hand experience from the deliberations at the Diplomatic Conference. Regarding the European Union plans in the realm of ship recycling, the approach of this study rests upon official EU documents as well as information received from interaction with European Commission officials. Finally, the latter parts of this thesis are particularly prescriptive in the sense that the analysis focuses on the questions whether the envisaged European Union measures are capable of sufficiently tackling the issues at stake, and which of the measures mentioned are particularly noteworthy.

It is the principal objective of this endeavour to provide a thorough analysis of the status quo of ship recycling regulation, with a slight preference to European initiatives. Therefore, the following part will not only give an overview of the historical development of the Hong Kong Convention as well as its main regulatory content, but will also provide a brief introduction to the realities existent in ship recycling (chapter “The Hong Kong Convention”). In order to find an explanation why the Hong Kong Convention has not been ratified by a substantial number of states at the present time,⁶³ this thesis will subsequently shift its focus to Article 17 HKC that stipulates the Entry-Into-Force requirements (chapter “Entry-Into-Force Provision”). In this matter, and in order to facilitate a comprehensive analysis, both the related legal framework and the basic insights of other related disciplines such as international relations will be briefly reviewed. As it seems quite clear by now that it will take at least another 10 to 15 years before the Hong Kong Convention enters into force and becomes legally binding on its parties, the principal part of this thesis will subsequently scrutinise the scope of existing international legislation in this respect with a particular focus on past and present proceedings at the European level (chapter “European Ship Recycling Regulation”). To complement the analysis of direct legislative efforts of the European Union, some further attention will be concentrated on indirect regulation as well as other instruments of non-binding and

⁶² Chayes/Chayes, *The New Sovereignty* (1995), at x.

⁶³ As of today, the following five states are party to the Hong Kong Convention: France, Italy, the Netherlands, Saint Kitts and Nevis, and Turkey; Garfield, ‘Turkey ratifies Hong Kong Convention’, *Tradewinds*, 10 September 2010, at 53.

political nature. A final conclusion (chapter “Conclusions and Perspectives”) will then recapitulate the findings of the different chapters and conclude this thesis by offering a number of policy recommendations and some final perspectives on ship recycling regulation.

The Hong Kong Convention

This second chapter deals with the path to the *2009 Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships*. It begins with an introduction to the factual framework of ship recycling with a focus on its occurrence and effects (A.). This part is followed by a section concentrating on the history of the regulation of ship recycling in the course of which central moments of this process are highlighted (B.). The third section gives an overview of key objectives and obligations of the Hong Kong Convention (C.) which will be of some relevance at a later point of this analysis.

A. Ship Recycling: The Factual Framework

Typically, regulatory efforts are legislative reactions to situations considered to be untenable. This is true with regard to the regulation of financial markets, but it equally applies to international environmental regulation. Therefore an analysis of regulatory initiatives cannot do without a short overview on the factual situation.

I. Occurrence

Every year, between 200 and 600 ships of a certain size (i.e. over 2,000 dead weight tons) are dismantled and recycled worldwide.¹ The process of dismantling ships takes place on beaches under primitive conditions and without any (sufficient) safety measures or environmental protection. The term ‘primitive conditions’ usually refers to what is known as the ‘beaching’ method, i.e. the ships to be recycled are intentionally driven onto regular beaches using tidal waves. These ships are subsequently broken up and dismantled without any containment or protection structures except for their own hull.

¹ European Commission, ‘Green Paper on better ship dismantling’, EU-doc. COM(2007) 269, at 2.

Materials that can neither be recycled nor sold to interested buyers are usually dumped or burnt on the spot.²

Other ship recycling techniques include: completely dry methods within shipyards with primary and secondary cutting areas, fixed crane installations as well as appropriate waste treatment facilities; 'wet' methods where the floating ship is dismantled with similar, partially floating installations without the utilisation of a dry-dock; and 'landing' methods which require the ship to be fixed and dismantled on a slope, again utilising rather stationary installations.³

However, and due to a 'race to the bottom',⁴ these procedures, primarily utilised by European and U.S.-American ship recycling companies, face difficulties in competing with comparatively sub-standard ship recycling facilities in South Asia⁵ which have taken a lead role in the ship recycling industry.⁶ This development can be explained in the light of commercial decisions when a particular ship is sent for recycling.⁷

² European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 8.

³ BIMCO, 'Ship Recycling Convention' (21 September 2009), at 7–9.

⁴ Kaufmann, *Globalisation and Labour Rights* (2007), at 8–10 and 232–234; for different opinions with regard to the term 'race to the bottom', see Charny, 'Regulatory Competition and the Global Coordination of Labor Standards', 3 J. Int'l Econ. L. 281 (2000), at 282–283; Faure, 'Globalization and multi-level governance of environmental harm', in Faure/van der Walt (eds.), *Globalization and Private Law* (2010), 383, at 390–392 and 395–396.

⁵ See European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 5–6: "The Commission [...] concluded that under current conditions it would be extremely difficult to make ship recycling economically viable while at the same time respecting sound environmental standards for various reasons. [...]"

- Ships are individual constructions with a long life-cycle and will have undergone many repairs and maintenance in their 20–30 years of operation. Very little of this will be properly documented. The recycling facility therefore does not know what it is taking on and what recycling work will be required. This is particularly true for passenger ships which contain a wide range of materials, including composites which are very difficult to separate and recycle. The ships currently heading for the scrap yards were built in the 1970s using materials that are no longer used today (e.g. asbestos). Consequently, the amount of manual labour required is significant and likely to remain a major cost factor, with a limited potential use for heavy machinery for these types of vessels.

- Some materials on board can be recycled and will create revenue. Others need expensive treatment, for which costs are significant but difficult to calculate in advance.

- The main revenue streams for scrap yards in Asia are steel which is used in building, and the second-hand market in ships' equipment. These revenue streams basically do not exist in developed countries due to regulatory requirements".

⁶ European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 2.1: "More than 80% of the larger end-of-life ships worldwide since 2004 (in terms of tonnage) have been dismantled in India, Bangladesh and Pakistan. [...] Other countries like China, Turkey and several EU Member States where capacity exists for ship dismantling in dry docks, at piers and on hard slipways only account for a small fraction of the market."; in the future, China and Turkey are expected to expand and consolidate their respective market shares compelling India's, Pakistan's and Bangladesh's market share drop down to about 75 % – Turkey benefits from high Suez Canal transit costs and concerns about piracy in this context; China, on the other hand, is forcefully increasing its recycling capacity; see also European Commission, 'Impact Assessment for an EU strategy for better ship dismantling', EU-doc. SEC(2008) 2846, at 13.

⁷ See *infra* Chapter "Entry-Into-Force Provision", D.I.1.b) (pp. 69 et seq.).

This decision is primarily an economic one: A shipowner usually decides to have a specific ship dismantled when its maintenance costs exceed the expected revenue⁸ which, in turn, is particularly influenced by the metal and steel price offered by ship recycling facilities.⁹ For those facilities, scrap steel, copper, other metals, and the ships' equipment constitute considerable economic assets, which will subsequently be sold to regional companies.¹⁰ The price they offer to shipowners or—more frequently¹¹—intermediary (cash) buyers itself depends on the overall economic situation, business cycle trends and expectations, the regional market's demand for recycled steel and the overall costs of the ship recycling process. The price of ship recycling process differs substantially due to labour costs and costs for workers' safety as well as for environmental protection installations.¹²

The cost benefits derived from the use of unskilled labourers¹³ with an average salary of about one dollar per day,¹⁴ the lack of permanent structures and installations and the indifference with regard to the handling of hazardous wastes contributes to a very strong economic incentive¹⁵ for shipowners and intermediary

⁸ The economic boom of recent decades has led to an unexpected increase in freight rates which in turn resulted in an increase in the average age of about five years for dismantled ships (15–20 %); European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 2.3; this average-age increase might render any prognosis regarding future ship dismantlement inaccurate; due to the phase-out regulation for most single-hull tankers stipulated in the MARPOL Convention (Annex I), however, there is a huge risk of an "uncontrolled expansion of sub-standard facilities in South Asia"; see *ibidem*, para. 5.3; according to the European Commission's 'Green Paper on better ship dismantling' a ship dismantlement peak is to be expected in 2010 when – due to the present MARPOL 73/78 regulation – around 800 single-hull tankers will have to be processed; European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 2, 7.

⁹ For further information on entrepreneurial decision-making in this respect, see *infra* chapter "Entry-Into-Force Provision", D.I.1.b) (p. 69).

¹⁰ The predominant material on both tankers and bulkers is steel which accounts for between 63 % (bulkers) and 74 % (tankers) of the vessels' total weight; cf. European Commission DG Energy and Transport, Oil Tanker Phase Out and the Ship Scrapping Industry (2004), at 133; see also Strandenæs, 'Economics of the Markets for Ships', in Grammenos (ed.), *The Handbook of Maritime Economics and Business* (2002), 186, at 196.

¹¹ Stopford, *Maritime Economics*³ (2009), at 212.

¹² European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 2.1.

¹³ European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 8.

¹⁴ NGO Platform on Shipbreaking, *Off the Beach! Safe and Green Ship Dismantling* (2009), at 4; Misra/Mukherjee, *Ship Recycling* (2009), at 12; other sources indicate earnings of USD 2–3 per day; cf. Hess et al., *disposal options for ships* (2001), at 47–48.

¹⁵ Finn, 'The Role of the Shipbroker', *Ship Recycling Conference* 2005.

buyers to choose the low-standard facilities offered in Bangladesh,¹⁶ India,¹⁷ China¹⁸ and Pakistan.¹⁹

II. Environmental and Social Effects

Environmental and social effects of the ship scrapping industry are at least threefold²⁰: Hazardous materials on board end-of-life ships in particular, as well as the 'beaching' method in general, involve great threats for the local and regional environment.

¹⁶ A court order by the Bangladeshi High Court allegedly lead to a change regarding Bangladeshi ship scrapping facilities: following a petition filed by the Bangladesh Environmental Lawyers Association (BELA), the Bangladeshi High Court ordered all shipbreaking yards without specifically required environmental clearance to be shut down; this order actually closes the operations of the whole Bangladeshi shipbreaking industry as none of its 36 facilities currently produces such a clearance; by the end of 2010, ship recycling facilities have been re-opened following a legal battle between environmentalists and ship recycling companies; cf. Reyes, 'Busy Bangladeshi breakers face court's safety scrutiny', Lloyd's List, 16 February 2010, at 12; Garfield/Boonzaiar, 'Crisis in Bangladesh', Tradewinds, 21 May 2010, at 11; Murphy, 'No immediate end in sight to Bangladesh scrapping impasse', Lloyd's List, 18 June 2010, at 1; Reyes, 'Bangladesh Supreme Court upholds ship scrapping ban', Lloyd's List, 24 August 2010, at 8; Ahmed, 'Bangladesh re-imposes breaking rules', Fairplay, 9 September 2010, at 25; Garfield, 'Bangladesh breakers raise hopes', Tradewinds, 5 November 2010, at 14; Reyes, 'Bangladesh breakers back in action', Lloyd's List, 9 November 2010, at 8; in the aftermath, only about 20 of over 100 ship recycling facilities have been given clearance to re-start their operations; cf. Reyes, 'Rivals cash in as Bangladesh awaits regulations', Lloyd's List, 23 November 2010, at 9.

¹⁷ The situation of worker safety at ship recycling facilities in India seems to have improved over the last years; Rousmaniere/Raj, 'Shipbreaking in the Developing World: Problems and Prospects', 13(4) Int'l J. Occup. & Environ. Health 359 (2007), at 359; see also European Commission, 'Impact Assessment for an EU strategy for better ship dismantling', EU-doc. SEC (2008) 2846, at 14.

¹⁸ China was a major ship recycling state before countries such as Bangladesh, India and Pakistan entered the market and became the predominant market leaders; see Misra/Mukherjee, Ship Recycling (2009), at 30; however, there are some indications at the moment that China has not only regained its former market position in 2009, but also far outnumbered the other ship recycling states.

¹⁹ European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 2.1; there actually are 'green' ship recycling facilities with specific environmental and safety installations which would be able to handle around 30 % of a year's predicted worldwide scrapping demand, but as they cannot offer the same prices as their competitors in South Asia they find it difficult to make ends meet, see European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 3, 7; see also Andersen, 'Worker safety in the shipbreaking industries' (2001), at 15.

²⁰ For a different focus in this regard, see Milieu/COWI, Study in relation to options for new initiatives regarding dismantling of ships (2009), Appendix 2, at 8: "The key health, safety and environmental concern within the ship recycling yards are focused around:

- Exposure of hazardous materials to environment and people (workers and residents) during recycling Operations
- Safe disposal of the hazardous materials
- Accidents and incidents primarily due to falling heavy objects, falls from heights, explosions and fire".

Sub-standard working conditions, dangerous working practices and especially the lack of any safety measures whatsoever lead to a massive risk for human health. On the other hand, the shipbreaking industry in Bangladesh, India and Pakistan offers jobs for tens of thousands of their poorest and least qualified workers.²¹

End-of-life ships and vessels are hardly ever pre-cleaned before being shipped to South Asian ship recycling facilities. One method traditionally employed for the cleaning of ships prior to recycling has been the drilling of a number of holes into the hull of the beached ship in order to have the high tide clean away oil sludge and empty the tanks.²² The whole shipbreaking process including side-effects resulting from dumping and burning considerably affects the physio-chemical properties of sea water, beach soil and sediments.²³ The hazardous materials²⁴ on board old ships, i.e. vessels which were built before 1985, include asbestos, oils and oil sludge, polychlorinated biphenyls (PCB), tributyltin hydride (TBT), polyvinyl chloride (PVC) as well as heavy metals in paints.²⁵ As steel, including machinery and other equipment, accounts for about 80–90 % of a particular ship's total weight, the remaining fraction of 10–20 % of its weight includes these hazardous materials.²⁶

More detailed numbers are presented in an impact study on the accelerated phase-out of single hull tankers conducted for the European Commission in 2004²⁷: The amount of asbestos generated from future ship recycling will amount to 17,360 tons by the year 2015; in the same period, potentially environmentally harmful paints could amount up to 114,576 tons; oil sludge alone will add up to 7,221,760 tons. As early as 1999, the Norwegian Ministry of Environment published a detailed inventory of potentially

²¹ European Commission, 'Impact Assessment for an EU strategy for better ship dismantling', EU-doc. SEC(2008) 2846, para. 4.3.

²² European Commission, 'Impact Assessment for an EU strategy for better ship dismantling', EU-doc. SEC(2008) 2846, at 14.

²³ European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 8; European Commission, 'Impact Assessment for an EU strategy for better ship dismantling', EU-doc. SEC(2008) 2846, at 14–15; for a clearly arranged illustration of dismantling activities and their consequences on the environment, see Milieu/COWI, Study in relation to options for new initiatives regarding dismantling of ships (2009), Appendix 2, at 10.

²⁴ To clarify the term 'hazardous materials' with regard to ship dismantling, there have been a number of studies by governmental and non-governmental as well as international institutions; see, e.g., Basel Convention secretariat, 'Technical guidelines for the environmentally sound management of the full and partial dismantling of ships', UN-Doc. UNEP/CHW.6/23, Appendix B; IMO Assembly resolution, 'IMO Guidelines on Ship Recycling' (5 December 2003), Appendix 2 to IMO-doc. A 23/Res.962; ICS/ISF, 'Industry Code of Practice on Ship Recycling', Annex 1; European Commission DG Energy and Transport, Oil Tanker Phase Out and the Ship Scrapping Industry (2004), at 135; eventually, see also Appendix 1 to the Hong Kong Convention.

²⁵ European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 2; cf. also Milieu/COWI, Study in relation to options for new initiatives regarding dismantling of ships (2009), Appendix 2, at 9; see also Hess et al., disposal options for ships (2001), at 46–47.

²⁶ European Commission DG Energy and Transport, Oil Tanker Phase Out and the Ship Scrapping Industry (2004), at 135.

²⁷ *Ibidem*, at 137.

hazardous and/or at the very least, materials of environmental concern for a very-large crude carrier built in 1976²⁸ which also contained astonishing results.²⁹

In addition, according to the European Commission's 'Green Paper on better ship dismantling',

[...] none of the sites used for ship dismantling on the Indian sub-continent has containment to prevent pollution of soil and water, few have waste reception facilities, and the treatment of waste rarely conforms to even minimum environmental standards.³⁰

With regard to social effects, working conditions in South Asian ship recycling facilities are critical.³¹ The lack of safety or containment installations and the prolonged and unprotected contact of the labourers to toxic and hazardous materials results in a high number of accidents and diseases.³² For various reasons, there is no official data regarding the number of fatal accidents³³; there are, however, estimates which account for thousands of fatally injured labourers during the last two decades.³⁴ Most of the lethal injuries occur as a result of gaseous explosions in the dismantling yards, mainly because a considerable number of ship scrapping facilities do not even require 'gas-free-for-hot-work' certificates³⁵; others result from falling objects or

²⁸ A 'very-large crude carrier' (VLCC) is a formal term used to describe an oil tanker with a size of 160,000–319,999 dead weight tons (dwt), i.e. the second-largest class of 'supertankers' according to the average freight rate assessment (AFRS) scale.

²⁹ Lead: 0.4 kg; cadmium: 120 kg; batteries: 232 kg; antifouling: 24000 kg, with an estimated TBT content of 1200 kg; CFC-gases: 900 kg; asbestos: 8–9000 kg; polyvinyl chloride (PVC): 10000 kg; polychlorinated biphenyls (PCB): 24 kg; Hg: 100 kg; heavy fuel oil: 333 m³; hydraulic oil: 18 m³; lubrication oil: 20 m³; oil sludge: 1820 m³.

³⁰ European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 2.

³¹ Bailey, 'Reducing the decent work deficit: The cost of quality ship breaking practices' (speech delivered at the 2nd Global Ship Recycling Summit, 25 June 2001), at 1.

³² European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 8; for a clearly arranged illustration of dismantling activities and their respective adverse consequences on workers' health, see Milieu/COWI, Study in relation to options for new initiatives regarding dismantling of ships (2009), Appendix 2, at 10; see also EMSA, 'Study on the Certification of Ship Recycling Facilities', at 72; European Commission, 'Impact Assessment for an EU strategy for better ship dismantling', EU-doc. SEC(2008) 2846, at 15–16, citing a medical report to the Indian Supreme Court which recorded that 16 % of asbestos-handling workers in Alang were at serious risk of mesothelioma, i.e. a form of lung cancer, caused by asbestosis; Hess et al., disposal options for ships (2001), at 48.

³³ According to Greenpeace and FIDH, labourers in shipbreaking yards usually are not registered as they are seasonally employed, authorities are not interested in investigations due to obvious reasons and trade unions or similar kinds of representation are not existent; Greenpeace/FIDH, End of Life Ships (2005), at 9, 31.

³⁴ Ibidem, at 15; the rate of lethal accidents is supposedly six times higher than in the Indian mining industry, see European Commission, 'Impact Assessment for an EU strategy for better ship dismantling', EU-doc. SEC(2008) 2846, at 15.

³⁵ According to Regulation 1.4 of the Draft International Convention for the Safe and Environmentally Sound Recycling of Ships whose wording has been modified at the Conference, "'Gas-free-for-hot-works condition' means a safe, non-explosive condition for work requiring the use of

falling workers.³⁶ According to physicians working in and around Alang (India) who were quoted by a joint Greenpeace/FIDH report, the

combination of hazardous working conditions, congested and unhygienic living conditions, poor quality drinking water, (...) and rampant prostitution have given rise to a number of skin, gastrointestinal, and liver diseases besides tuberculosis, leprosy, malaria, malnutrition, cancer, HIV/AIDS, and other sexually transmitted diseases.³⁷

Furthermore, access to hospitals is either restricted or unaffordable, and appropriate emergency response personnel and services generally are not available.³⁸

From a narrow economic point of view, ship recycling in South Asia is sustainable.³⁹ The ship recycling industry constitutes a major source of revenue for South Asian national economies.⁴⁰ Between 80 % and 90 % of Bangladeshi steel allegedly comes from end-of-life ships.⁴¹ In 2005, between 25,000 and 30,000 workers were directly employed in Bangladeshi ship scrapping facilities⁴²; the number of people indirectly employed in the ship scrapping industry added up to between 100,000 and 200,000.⁴³ In India, the number of workers directly employed was in fact almost twice as high during boom times.⁴⁴ As these men and women usually work without contracts or insurance and as some degree of child labour is not uncommon,⁴⁵ it is not unreasonable to assume that

electric arc or gas welding equipment, cutting burning equipment or other forms of naked flame, as well as heating or spark generating tools”.

³⁶ Andersen, ‘Worker safety in the shipbreaking industries’ (2001), at 25.

³⁷ Greenpeace/FIDH, *End of Life Ships* (2005), at 11.

³⁸ UN-Doc. A/HRC/5/NGO/21, at 2.

³⁹ This perspective is ‘narrow’ as it ignores environmental and social sustainability.

⁴⁰ This is probably also the reason why South Asian governments have so far been quite reluctant to enforce changes regarding regulation or enforcement of labour standards; see European Commission, ‘Green Paper on better ship dismantling’, EU-doc. COM(2007) 269; Greenpeace/FIDH, *End of Life Ships* (2005), at 9; however, this attitude might actually be in flux (see *supra* chapter “The Hong Kong Convention”, note 16); on the other hand, even NGOs like Greenpeace and FIDH do not suggest to close the yards and return the shipbreaking activity to each ship’s country of origin in order not to deprive these South Asian regions of this important source of income; *ibidem*, at 6; see also Andersen, ‘Worker safety in the shipbreaking industries’ (2001), at 18.

⁴¹ European Commission, ‘Green Paper on better ship dismantling’, EU-doc. COM(2007) 269, at 2; Parkinson, ‘Ship Recycling: Current Trends, Future Developments and Mandatory Provisions’, *Ship Recycling Conference* 2005.

⁴² See Garfield, ‘Scrap ban to continue for Bangladesh shipbreakers’, *Tradewinds*, 27 August 2010, at 22 (indicating that an estimated 30.000 jobs are at stake in the on-going legal debate).

⁴³ European Commission, ‘Green Paper on better ship dismantling’, EU-doc. COM(2007) 269, at 8; Greenpeace/FIDH, *End of Life Ships* (2005), at 15; see also Rousmaniere/Raj, ‘Shipbreaking in the Developing World: Problems and Prospects’, 13(4) *Int’l J. Occup. & Environ. Health* 359 (2007), at 360–361.

⁴⁴ European Commission, ‘Green Paper on better ship dismantling’, EU-doc. COM(2007) 269, at 8; Rousmaniere/Raj, ‘Shipbreaking in the Developing World: Problems and Prospects’, 13(4) *Int’l J. Occup. & Environ. Health* 359 (2007), at 360.

⁴⁵ European Commission, ‘Green Paper on better ship dismantling’, EU-doc. COM(2007) 269, at 8; in this context, see also the opinion of the European Economic and Social Committee on the European Commission’s ‘An EU strategy for better ship dismantling’, EU-doc. C 277/67, para. 4.6.

these people belong to the lower socio-economic and unqualified population.⁴⁶ This part of the population, however, would have to leave these comparatively rural areas in order to find similarly paid jobs. The existence of a salary as well as the mere fact that these people are employed certainly does not compensate for the risks they take—one has to admit, on the other hand, that the ship scrapping industry nonetheless does make a contribution to these distressed societies.⁴⁷

B. Regulative History

The international regulatory environment for ship recycling has evolved quickly over the last few years. Prior to institutional proceedings by IMO and other international bodies, non-governmental organisations had been active in this respect, trying to raise public awareness. Several additional actors such as industry groups, think tanks as well as international organisations participated in the process, which finally lead to the adoption of the Hong Kong Convention in Hong Kong, China, in May 2009.

I. Raising Awareness

After a series of investigative newspaper articles on the international shipbreaking industry by ENGLUND and COHN was awarded the Pulitzer Prize in 1998,⁴⁸ the non-governmental organisations *Greenpeace International* and *Basel Action Network* took the lead in raising awareness with regard to risks for both workers' health and the

⁴⁶ Greenpeace/FIDH, *End of Life Ships* (2005), at 5, 31.

⁴⁷ In this context, see European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 8: "[...] the governments of the South Asian states seem reluctant to enforce a change in practices as they regard ship dismantling as an economically important activity which should be impeded as little as possible."; cf. also Rousmaniere/Raj, 'Shipbreaking in the Developing World: Problems and Prospects', 13(4) *Int'l J. Occup. & Environ. Health* 359 (2007), at 360–361; for further social implications in this context, see UK DEFRA, *UK Ship Recycling Strategy* (2007), para. 114; for a worker's perspective, see the foreword to Misra/Mukherjee, *Ship Recycling* (2009): "The Ship Recycling industry beckoned us for work, giving us opportunities and a livelihood. Most of us are from remote viallages in the eastern part of India. I have spent eighteen years in breaking ships in Alang and know no other profession or trade which would gainfully utilize me. These ships fascinate us. Each one has a story to tell and echoes the sentiments of thousands, whoever served on her or dealt with her. To us each one is a story book. While we all lived our lives, a few of us did not stay along or have perished. We call that destiny. Since the visuals of pain and tragedy on account of poverty and deprivation outweighed these accidents, we pushed ourselves all along [...]"

⁴⁸ See *supra* chapter "Introduction", note 1.

environment related to ship recycling.⁴⁹ Public pressure almost promptly resulted in meetings of maritime industry players.

II. Maritime Industry Meetings

In the following years, the number of related maritime industry meetings increased steadily. The most important meetings of those early days were the Global Summits on Ship Scrapping/Ship Recycling in 1999 and 2001.

1. First Global Ship Scrapping Summit

The first maritime industry meeting was held in Amsterdam in June 1999. It was attended by over 175 delegates and officials from international maritime companies, maritime states and non-governmental organisations. One of the first decisions to be taken was to change the name of the conference into ‘Ship Recycling Summit’ in order to emphasise the sustainability aspect of ship scrapping. In addition, it was noted that ship recycling is an economically important part of a ship’s life cycle. At the same time, the current state of affairs with regard to working conditions and environmental implications was addressed. However, as it was recommended that the maritime industry should regulate itself in this matter, immediate adjustments of the regulatory framework were not considered necessary at that point of time.⁵⁰

2. Second Global Ship Recycling Summit

The situation had changed substantially by the time the second maritime industry meeting was held in Rotterdam in June 2001. IMO’s Marine Environment Protection Committee (MEPC) had become active,⁵¹ and ship recycling had finally appeared on the international agenda. Topics addressed included, *inter alia*, the tensions between relevant economic and environmental forces, the costs of safe and environmentally sound ship recycling, the question whether IMO should take the lead in international ship recycling regulation, and the socio-economical importance of ship recycling for a number of developing countries.⁵² Ultimately, the summit led to a number of conclusions, the most important of which related to a future international convention

⁴⁹ For further references, see, e.g., Greenpeace International et al., ‘The need to develop a new legally-binding instrument that will build and improve upon existing environmental justice legislation’ (1 February 2006), IMO-doc. MEPC 54/3/5/Rev.1.

⁵⁰ See 1st Global Ship Scrapping Summit, Official Press Release (24 June 1999), <http://www.ban.org/ban_news/1st.html> accessed 31 January 2012.

⁵¹ See *infra* chapter “The Hong Kong Convention”, note 55.

⁵² See 2nd Global Ship Recycling Summit, Objectives (25 June 2001), <http://www.mareforum.com/shiprecycling_objectives.htm> accessed 31 January 2012.

in the field of ship recycling⁵³: This convention was envisaged as a long term solution following interim measures in the shape of a voluntary code of conduct which should—as a first step—define internationally applicable standards and best practices.⁵⁴

In the end, these two conferences witnessed a dramatic change regarding the overall attitude towards ship recycling regulation. Whereas one of the implicit objectives of the *First Global Ship Scrapping Summit* appeared to be the avoidance of binding regulatory measures in the field of ship recycling, subsequent public pressure and increased public awareness resulted in a completely different atmosphere at the *Second Global Ship Recycling Summit*.

III. Path to the Convention

This change of atmosphere cleared the way for ship recycling regulation, thus opening up a path to an internationally binding convention.⁵⁵

In 2003, the International Maritime Organization (IMO) adopted the *IMO Guidelines on Ship Recycling*.⁵⁶ The International Labour Organization (ILO) published guidelines regarding safety and health issues in shipbreaking in 2004 which were subsequently translated into the local languages of major ship recycling countries.⁵⁷ Cooperation between IMO, ILO and the Basel Convention Secretariat resulted in the establishment of a joint working group in 2005 in order to coordinate each party's activities and reduce regulatory overlaps.⁵⁸ A ship recycling conference organised by Lloyd's List in April 2005 discussed *inter alia* the necessity of a mandatory system.⁵⁹ In 2007, the European

⁵³ See 2nd Global Ship Recycling Summit, Conclusions of the Summit (25 June 2001), <http://www.mareforum.com/shiprecycling_conclusions.htm> accessed 31 January 2012.

⁵⁴ See, e.g., the 'inventory of potentially hazardous materials on board' as suggested by the Industry Working Party on Ship Recycling; see Parkinson, 'The Shipping Industry View and Practical Solutions' (speech delivered at the 2nd Global Ship Recycling Summit, 25 June 2001), at 2–3; in this context, see also the suggested 'register of ships that are and will be recycled', Wijnolst, 'Towards a Ship Recycling Industry Charter' (speech delivered at the 2nd Global Ship Recycling Summit, 25 June 2001), at 6.

⁵⁵ However, it has to be acknowledged that 'ship scrapping' appeared on the IMO agenda as early as 1999, following a comment by Norway at MEPC 42 in 1998; see the report of the MEPC on its 42nd session (16 November 1998), IMO-doc. MEPC 42/22, paras. 19.22–19.23; see also the formal proposal to include ship scrapping on the work programme of MEPC by Norway at MEPC 43 (12 February 1999), IMO-doc. MEPC 43/18/1.

⁵⁶ IMO Assembly resolution, 'IMO Guidelines on Ship Recycling' (5 December 2003), Annex to IMO-doc. A 23/Res.962.

⁵⁷ ILO, Safety and Health in Shipbreaking: Guidelines for Asian countries and Turkey; see also the Final Report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its third session (31 October 2008), UN-doc. ILO/IMO/BC WG 3/6, para. 26.

⁵⁸ IMO Secretariat, 'Terms of Reference for the Joint ILO/IMO/Basel Convention Working Group' (21 January 2005), UN-doc. ILO/IMO/BC WG 1/6/1.

⁵⁹ Veldhoven, 'Why are we here? The Political and Legal Background', Ship Recycling Conference 2005.

Commission published the ‘Green Paper on Better Ship Dismantling’, which was further elaborated in the report ‘An Integrated Maritime Policy for the European Union’⁶⁰ and finalised in the document ‘An EU Strategy For Better Ship Dismantling’⁶¹ in late 2008. Prior to this, as early as January 2008, IMO published its ‘Draft Convention on Safe and Environmentally Sound Recycling of Ships’.⁶² About the same time, the International Organization for Standardization (ISO) launched a new series of standards with regard to the recycling of ships.⁶³ Finally, the Hong Kong Convention, completed under the auspices of IMO, was adopted under the title ‘Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships’ at a Diplomatic Conference in Hong Kong in May 2009.

1. IMO’s Mandate

The International Maritime Organization (IMO) is the ‘competent international organisation’⁶⁴ exclusively devoted to maritime matters.⁶⁵ Hence, and according to Article 1(a) of the United Nations’ treaty establishing the organisation in 1948,⁶⁶ ‘maritime’ is to be construed restrictively by meaning ‘related to shipping’. The general purposes of IMO are:

to provide machinery for co-operation 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; [...]⁶⁷

⁶⁰ European Commission, ‘Accompanying document to [...] An Integrated Maritime Policy for the European Union’, EU-doc. SEC(2007) 1278.

⁶¹ European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767.

⁶² Annex 6 to the report of the MEPC on its 58th session (16 October 2008), IMO-doc. MEPC 58/23.

⁶³ ISO press release, <<http://www.iso.org/iso/pressrelease.htm?refid=Ref1105>> accessed 31 January 2012.

⁶⁴ See, e.g., Articles 211, 217, 218, 220, 223 UNCLOS.

⁶⁵ See, e.g., Wolfrum, ‘IMO Interface with the Law of the Sea Convention’, in Nordquist/Moore (eds.), *Current Maritime Issues and the International Maritime Organization* (1999), 223, at 224–225; Harrison, *Making the law of the sea* (2011), at 171–179; for a more sceptical perspective, see Tan, *Vessel-Source Marine Pollution* (2005), at 103: “It would be more accurate to explain the current legislative intensity as being propelled by the interests of a minority of influential states wishing to use IMO as a platform to advance coastal state concerns and to ‘internationalise’ what could arguably be called localised problems”.

⁶⁶ Convention on the International Maritime Organization (adopted 6 March 1948); after the convention had entered into force, the organisation, then known as the Intergovernmental Maritime Consultative Organization, became effective from 1958.

⁶⁷ Article 1(a) of the Convention on the International Maritime Organization.

Although these purposes could be categorised into three groups, only two of them are of primary interest to IMO,⁶⁸ namely, maritime safety,⁶⁹ and the prevention of marine pollution.^{70,71}

Currently, the organisation consists of 169 member states and 3 associate members. Furthermore, there are 75 non-governmental organisations with consultative status and 61 intergovernmental organisations which have signed cooperation agreements with IMO.⁷² These agreements mean that the respective representatives are allowed to participate in the work of different committees and sub-bodies without actually being entitled to voting. The 'Assembly', being the governing body of IMO, holds official sessions every 2 years. In between, the 'Council' consisting of 40 member states elected by the 'Assembly' is in charge.

Most of IMO's work is conducted in a number of committees which meet more frequently, such as the MEPC. This body was established in 1973 to coordinate the

⁶⁸ There are, of course, also IMO conventions and guidelines relating to the 'efficiency of navigation' aspect such as the Convention on the Facilitation of Maritime Traffic (1965); however, both in numbers and with regard to the self-perception of the IMO, the fields of maritime safety and the prevention of marine pollution prevail; see, e.g., Harrison, *Making the law of the sea* (2011), at 159.

⁶⁹ See the following IMO conventions in the field of maritime safety: 1960/1974 International Convention on Safety of Life at Sea (SOLAS); the 1978, 1988 and 2002 SOLAS Protocols; the 1966 International Convention on Load Lines and its 1988 Protocol; the 1969 International Convention on Tonnage Measurement of Ships; the 1972 Convention on the International Regulations for Preventing Collisions at Sea; the 1972 Convention for Safe Containers; 1976 the International Convention on the International Maritime Satellite Organization; the 1977 Torremolinos Convention for the Safety of Fishing Vessels; the 1978 Convention on Standards of Training, Certification, and Watch-keeping for Seafarers; and the 1979 International Convention on Maritime Search and Rescue.

⁷⁰ Note the following IMO-related conventions aiming at the prevention of marine pollution and/or the minimisation of its effects: the 1954 International Convention for the Prevention of Pollution of the Sea by Oil, for which the IMO became the depository agency in 1959; its amendment (1962); the 1969 Convention on Intervention on the High Seas in Cases of Oil Pollution Casualties; the 1969 Convention on Civil Liability for Oil Pollution Damage; the 1971 Convention for the Establishment of an International Fund for Compensation for Oil Pollution Damage; the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter; the 1973 International Convention for the Prevention of Pollution from Ships; its 1973 Protocol as well as its 1984 and 1985 Amendments; the 1990 International Convention on Oil Pollution Preparedness, Response and Co-operation; the 2001 International Convention on the Control of Harmful Anti-Fouling Systems; and, finally, the 2004 International Convention for the Control and Management of Ships' Ballast Water and Sediments.

⁷¹ Blanco-Bazán, 'The Environmental UNCLOS and the Work of IMO in the Field of Prevention of Pollution from Vessels', in Kirchner (ed.), *International Marine Environmental Law* (2003), 31, at 32; by taking into account land-based sources of marine pollution as well, IMO's competencies are not limited to the oceans but also include coastal areas resulting in a range of activities similar to those of the Intergovernmental Oceanographic Commission; for further information on the latter, see Ehlers, 'The Intergovernmental Oceanographic Commission: An International Organisation for the Promotion of Marine Research', 15 *Int'l J. Marine & Coastal L.* 533–554 (2000).

⁷² Figures taken from <<http://www.imo.org>> accessed 31 January 2012.

organisation's efforts with regard to the prevention and control of ship-related pollution of the marine environment.⁷³ Its mandate also includes the introduction of amendments to technical regulations of other environmental conventions developed, implemented and controlled under the auspices of IMO.⁷⁴ In general, all IMO committees are open to participation by representatives from each member state.

In addition to dozens of international conventions whose topics range from civil liability for oil pollution damage⁷⁵ to the prevention of marine pollution by the dumping of wastes,⁷⁶ IMO has adopted hundreds of recommendations, guidelines and codes.⁷⁷ These instruments typically do not have any legally binding effect on member states and their respective governments, but they do provide guidance on a vast variety of legal and technical matters. In some cases, former non-binding guidelines have been further developed and turned into binding conventions.

Typically, the initial work on an international convention is conducted by a particular committee after a request by the 'Assembly' has been adopted. Subsequently, a draft convention is submitted to an international diplomatic conference convened by IMO which ultimately—after final deliberations on critical questions—adopts the final wording and invites states to ratify the new convention. This international instrument becomes legally binding on its parties after a particular set of entry-into-force requirements are met, as specified by the convention. Typically, "the more important and more complex the document, [...] the more stringent are the conditions for its entry into force".⁷⁸ These provisions stipulating 'appropriate' requirements vary from convention to convention.⁷⁹

Only a few international conventions which have been developed under the auspices of IMO have failed to gain enough support to fulfil the entry-into-force requirements imposed, rendering the respective convention a stillborn project.⁸⁰

⁷³ See, e.g., IMO Assembly resolution, 'Establishment of a Marine Environment Protection Committee' (23 November 1973), IMO-doc. A.297(VIII); another important committee is the Legal Committee which was initially established to deal with legal questions arising from the Torrey Canyon accident in 1967, but which was granted permanent status in the aftermath.

⁷⁴ Blanco-Bazán, 'The Environmental UNCLOS and the Work of IMO in the Field of Prevention of Pollution from Vessels', in Kirchner (ed.), *International Marine Environmental Law* (2003), 31, at 33.

⁷⁵ 1969 International Convention on Civil Liability for Oil Pollution Damage and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage.

⁷⁶ 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter.

⁷⁷ Furthermore, the organisation provides technical assistance to a great number of member states in order to help them facilitate, ratify and implement relevant IMO conventions and regulations.

⁷⁸ IMO, 'Conventions', <http://www.imo.org/Conventions/mainframe.asp?topic_id=148> accessed 31 January 2012.

⁷⁹ See *infra* chapter "Entry-Into-Force Provision", C.II (pp. 57 et seq.).

⁸⁰ According to the IMO publication 'Status of Multilateral Conventions and Instruments in respect of which the International Maritime Organization or its Secretary-General Performs Depositary or other Functions' (30 September 2011), the following IMO-related conventions,

The vast majority of conventions, however, has entered into force within an average of 5 years after adoption.⁸¹

Once an IMO convention becomes legally binding for its parties, these states have to comply with the obligations it entails by enacting respective domestic legislation and by enforcing these provisions. As far as their own ships are concerned, compliance with the relevant provisions falls under their responsibilities as flag states.⁸² With regard to ships flying the flag of other states and dwelling in a relevant national port voluntarily, port state control provides a legal framework which has become more and more important over the last decades.⁸³ IMO itself has no enforcement powers whatsoever.

amendments or protocols have not (yet) entered into force: the 1993 Amendments to the 1972 International Convention for Safe Containers and Annexes I and II (CSC 1993); the 1995 International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F 1995) (which will enter into force on 29 September 2012); the 1993 Torremolinos Protocol to the 1977 Torremolinos International Convention for the Safety of Fishing Vessels (SFV PROT 1993); the 1994 Amendments to the Operating Agreement on the 1976 International Maritime Satellite Organisation, as amended (INMARSAT OA 1994); the 2006 and 2008 Amendments to the Convention on the International Mobile Satellite Organization (IMSO C 2006, 2008); the 1978 Amendments to the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LC DISPUTES 1978); the 1990 and 2002 Protocols to the 1974 Athens Convention relating to the Carriage of Passengers and their Luggage by Sea (PAL PROT 1990, 2002); the 1996 International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS 1996); the 2010 Protocol to the 1996 International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS PROT 2010); the 2004 International Convention for the Control and Management of Ships' Ballast Water and Sediments (BWM 2004); the 2007 Nairobi International Convention on the Removal of Wrecks (NAIROBI WRC 2007); and the 2009 Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (HONG KONG SRC 2009).

⁸¹ IMO, 'Conventions', <http://www.imo.org/Conventions/mainframe.asp?topic_id=148> accessed 31 January 2012.

⁸² For further information on flag state control, see Witt, *Obligations and control of flag states* (2008); Lemke, *Erfüllungsdefizite des Flaggenstaats* (2011); Anderson, 'The Roles of Flag States, Port States, Coastal States and International Organisations in the Enforcement of International Rules and Standards Governing the Safety of Navigation and the Prevention of Pollution from Ships under the UN Convention on the Law of the Sea and Other International Agreements', 2 *Sing. J. Int'l & Comp. L.* 557–578 (1998); Behnam, 'Ending flag state control?', in Kirchner (ed.), *International Marine Environmental Law* (2003), at 123–135; see also *infra* chapter "European Ship Recycling Regulation", A.I.2 (pp. 104 et seq.).

⁸³ For further information on port state control, see Kasoulides, *Port State Control and Jurisdiction* (1993); Özçayır, *Port State Control*² (2004); Johnson, *Coastal State Regulation of International Shipping* (2004); Schiano di Pepe, 'Port state control as an instrument to ensure compliance with international marine environmental obligations', in Kirchner (ed.), *International Marine Environmental Law* (2003), pp. 137–156; in principle, port state control, as opposed to flag state control, is a primarily corrective concept which aims at correcting non-compliance of flag states; cf. Blanco-Bazán, 'The Environmental UNCLOS and the Work of IMO in the Field of Prevention of Pollution from Vessels', in Kirchner (ed.), *International Marine Environmental Law* (2003), 31, 39–40; see also *infra* chapter "European Ship Recycling Regulation", A.I.2 (pp. 104 et seq.).

2. Joint Efforts of IMO, ILO and the Basel Secretariat

Concerns of IMO, ILO and the Basel Secretariat about adverse effects on the environment and health related to ship recycling had risen over the years,⁸⁴ which is why their respective competent bodies came to realise the need to tackle the problem institutionally.⁸⁵ In the biennium 2004–2005, each particular faction agreed upon further proceedings⁸⁶ in order to facilitate “[...] a platform for consultation, co-ordination and co-operation in relation to the work programme and activities of ILO, IMO and the Conference of Parties to the Basel Convention with regard to issues related to ship recycling.”⁸⁷

From 15 to 17 February 2005, the ‘Joint ILO/IMO/Basel Convention Working Group on Ship Scrapping’ assembled for the first time. Its prime objective was to “[...] undertake a comprehensive initial examination of the relevant ILO, IMO and Basel Convention guidelines on ship scrapping, with a view to identifying any possible gaps, overlaps, or ambiguities”⁸⁸ in order to avoid “[...] duplication of work and overlapping

⁸⁴ ILO: Safety and Health in Shipbreaking: Guidelines for Asian countries and Turkey, were adopted by the Interregional Tripartite Meeting of Experts on Safety and Health in Shipbreaking for Selected Asian countries and Turkey (Bangkok, 7 to 14 October 2003) and approved by the Governing Body of the ILO at its 289th session; Code of Practice on occupational safety and health in the iron and steel industry was adopted by a Meeting of Experts on Safety and Health in the Iron and Steel Industry (Geneva, 1 to 9 February 2005) and approved by the Governing Body of the ILO at its 292nd session; IMO: the Guidelines on Ship Recycling were adopted on 5 December 2003 at the twenty-third session of the Assembly by Resolution A.962(23), IMO-doc. A 23/Res.962, and amended by Assembly Resolution A.980(24) on 1 December 2005, IMO-doc. A 24/Res.980; Basel Convention Secretariat: the Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships were adopted at the sixth meeting of the Conference of Parties to the Basel Convention by Decision VI/24 (13 December 2002), UN-doc. UNEP/CHW.6/40, at 138.

⁸⁵ Report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its first session (18 February 2005), IMO-doc. ILO/IMO/BC WG 1/8, at 1.4.

⁸⁶ Report of the MEPC on its 51st session (22 April 2004), IMO-doc. MEPC 51/22, at 3.18.; Decision VII/25: ‘Joint Working Group of the International Labour Organization, the International Maritime Organization and the Basel Convention on Ship Scrapping’ (29 October 2004), UN-doc. UNEP/CHW.7/33, at 60–62; ILO GB, report of the Committee on Sectoral and Technical Meetings and Related Issues, ILO-doc. GB.291/12(Rev.), para. 46.

⁸⁷ Report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its first session, IMO-doc. ILO/IMO/BC WG 1/8, para. 1.5; cf. Wessel/Wouters, ‘The Phenomenon of Multilevel Regulation: Interactions between Global, EU and National Regulatory Spheres’, in Follesdal/Wessel/Wouters (eds.), *Multilevel Regulation and the EU: the Interplay between Global, European and National Legal Processes* (2008), 9, at 29: “The tendency towards functional specialisation because of the technical expertise required in many areas may be a reason for the proliferation of such [non-conventional international] bodies and for their interaction with other international organisations and agencies”.

⁸⁸ Report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its first session, IMO-doc. ILO/IMO/BC WG 1/8, para. 1.6.

of roles, responsibilities and competencies between the three Organizations”.⁸⁹ A major concern related to the risk of these three organisations competing with each other on the issue of ship recycling, thereby rendering a joint solution to the—then—fragmented situation impossible.⁹⁰ Accordingly, the cooperation between them was seen as “[...] instrumental and essential to build the required coherence at the international level”.⁹¹

Key issues under investigation by MEPC included the mandatory application of the *IMO Guidelines on Ship Recycling*,⁹² the development of a legally binding and globally applicable ship recycling regime,⁹³ a reporting system for ships to be recycled,⁹⁴ the preparation of ship recycling plan,⁹⁵ a list of potentially hazardous materials on-board,⁹⁶ and the question of establishing an International Ship Recycling Fund.⁹⁷ At the seventh meeting of the Conference of the Parties to the Basel Convention (COP 7), participants mandated an Open-Ended Working Group to consider the practical, legal and technical aspects of ship dismantling and to present relevant proposals to the eighth meeting of the Conference of the Parties to the Basel Convention (COP 8) on a legally binding solution.⁹⁸ Once more, parties to the Basel Convention were reminded “[...] to fulfil their obligations under the Basel Convention, where applicable, in particular their obligations with respect to prior informed consent, minimization of transboundary movements of hazardous wastes and the principles of environmentally sound management.”⁹⁹ The main focus of ILO rested on the continued translation and promotion of *Safety and health in shipbreaking: Guidelines for Asian countries and Turkey* (2004). Furthermore, the question of the abandonment of ships was raised by COP 7¹⁰⁰ in order to clarify its applicability to foreign ships left at ship recycling facilities for recycling purposes.¹⁰¹

⁸⁹ Ibidem, para. 1.6; for an illustrated collection of possible areas of duplication of work and overlapping of roles, responsibilities and competencies, see the report's Annex 3.

⁹⁰ Harrison, *Making the law of the sea* (2011), at 240 and 265.

⁹¹ Report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its first session, IMO-doc. ILO/IMO/BC WG 1/8, para. 1.7.

⁹² IMO Secretariat, ‘Work programme of the Marine Environment Protection Committee on the issue of ship recycling’ (9 September 2004), UN-doc. ILO/IMO/BC WG 1/2, para. 5.

⁹³ Ibidem, para. 7.

⁹⁴ Ibidem, paras. 8–10.

⁹⁵ IMO Secretariat, ‘Guidelines for the development of the ship recycling plan’ (9 September 2004), UN-doc. ILO/IMO/BC WG 1/3, at 2–5.

⁹⁶ IMO Secretariat, ‘Work programme of the Marine Environment Protection Committee on the issue of ship recycling’ (9 September 2004), UN-doc. ILO/IMO/BC WG 1/2, paras. 11–14.

⁹⁷ Ibidem, para. 19.

⁹⁸ Basel Convention Secretariat, ‘Work programme of the Conference of the Parties to the Basel Convention on the issue of ship scrapping’ (10 January 2005), UN-doc. ILO/IMO/BC WG 1/2/1, at 7.

⁹⁹ Ibidem, at 5.

¹⁰⁰ Ibidem, at 8–9.

¹⁰¹ Subsequently, it was noted that the abandonment of a ship within the internal waters of a state is neither governed by the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter nor by the 2007 Nairobi International Convention on the Removal of

From 12 to 14 December 2005, the ‘Joint ILO/IMO/BC Working Group on Ship Scrapping’ held its second session. New issues on this meeting’s agenda included concepts of environmentally sound management (ESM) of ship scrapping,¹⁰² prior informed consent¹⁰³ as well as approaches to promote occupational health and safety. The Norwegian delegation had prepared a draft proposal in advance¹⁰⁴ for a new legally binding international instrument on ship recycling following a request adopted by the IMO Assembly on 1 December 2005.¹⁰⁵ The draft text, *inter alia*, provided regulations for

- .1 the design, construction, operation and preparation of ships so as to facilitate safe and environmentally sound recycling, without compromising the safety and operational efficiency of ships;
- .2 the operation of ship recycling facilities in a safe and environmentally sound manner; and
- .3 the establishment of an appropriate enforcement mechanism for ship recycling.,¹⁰⁶

thereby setting three particular objectives. The specific structure of the annex with its ‘Regulations for Safe and Environmentally Sound Recycling of Ships’ consisted of four sections: General Provisions, Requirements for Ships, Requirements for Ship Recycling Facilities, and Reporting Requirements. This order has not been further modified.

The Open-Ended Working Group mandated by COP 7 reported on stakeholders’ comments on the practical, legal and technical aspects of ship recycling¹⁰⁷ as well as on parties’ comments on the issue of abandoned ships.¹⁰⁸ By delegates from

Wrecks; see IMO Secretariat, ‘Abandonment of ships’ (17 January 2005), UN-doc. ILO/IMO/BC WG 1/2/2, at 3–4 and 9–10.

¹⁰² United Kingdom, ‘Environmentally Sound Management’ (31 October 2005), UN-doc. ILO/IMO/BC WG 2/8; see also the report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its second session (14 December 2005), UN-doc. ILO/IMO/BC WG 2/11, paras. 8.4–8.8.

¹⁰³ Report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its second session (14 December 2005), UN-doc. ILO/IMO/BC WG 2/11, paras. 8.9–8.13; see also *infra* chapter ‘The Hong Kong Convention’, note 113.

¹⁰⁴ IMO Secretariat, ‘Work programme of the Marine Environment Protection Committee on the issue of ship recycling: Proposal for a new legally-binding instrument on recycling of ships’ (8 December 2005), UN-doc. ILO/IMO/BC WG 2/INF.1.

¹⁰⁵ IMO Assembly resolution, ‘New Legally Binding Instrument on Ship Recycling’ (1 December 2005), IMO-doc. A 24/Res.981.

¹⁰⁶ IMO Secretariat, ‘Work programme of the Marine Environment Protection Committee on the issue of ship recycling: Proposal for a new legally-binding instrument on recycling of ships’ (8 December 2005), UN-doc. ILO/IMO/BC WG 2/INF.1, para. 4.

¹⁰⁷ Basel Convention Secretariat, ‘Comments, Recommended Solutions and Views Received Pursuant to Decision OEWG-IV/5 adopted by the fourth session of the Open-Ended Working Group of the Basel Convention’ (18 November 2005), UN-doc. ILO/IMO/BC WG 2/8/3.

¹⁰⁸ Basel Convention Secretariat, ‘Information Received in Response to the Questionnaire Issued Pursuant to Decision OEWG-IV/6 adopted by the fourth session of the Open-Ended Working Group of the Basel Convention’ (18 November 2005), UN-doc. ILO/IMO/BC WG 2/8/1; see also

non-governmental organisations, emphasis was given to the need “[...] to address immediate measures to prevent further death and pollution”.¹⁰⁹ As a consequence, a number of delegations highlighted the range of existing instruments and guidelines which should be employed, implemented and better enforced in order to address immediate concerns.¹¹⁰ A comparison of the guidelines of the ILO, IMO and the Basel Convention on ship recycling, conducted by an inter-sessional working group, summarised 11 key issues identifying areas of consensus as well as gaps, overlaps, and ambiguities.¹¹¹ Particular attention was drawn to the development of an ‘International Ready for Recycling Certificate’,¹¹² the issue of ‘Prior Informed Consent’ (PIC)¹¹³ and the question of pre-cleaning and preparing ships prior to delivery.¹¹⁴ Furthermore, considerable progress regarding the establishment of an ‘International Ship Recycling Fund’ was noted.¹¹⁵

In a nutshell, these joint efforts greatly facilitated the establishment of ideas leading to the later provisions of the Hong Kong Convention insofar as they provide a substantial first step of institutionally putting an end to fragmented and sector-specific approaches in this respect.

the report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its second session (14 December 2005), UN-doc. ILO/IMO/BC WG 2/11, paras. 8.1–8.3.

¹⁰⁹ Report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its second session (14 December 2005), UN-doc. ILO/IMO/BC WG 2/11, para. 4.13; see also Greenpeace International et al., ‘The need to develop a new legally-binding instrument that will build and improve upon existing environmental justice legislation’ (1 February 2006), IMO-doc. MEPC 54/3/5/Rev.1.

¹¹⁰ Report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its second session (14 December 2005), UN-doc. ILO/IMO/BC WG 2/11, para. 4.15.

¹¹¹ These eleven topics are: Green Passport (paras. 25–28), Ship Recycling Plan (paras. 29–35), Hazardous Materials’ Inventory (paras. 36–50), ESM (paras. 51–55), Best Practice for Ship Scrapping Facilities (paras. 56–70), Selection of Recycling Facilities (paras. 71–77), Informed Consent (paras. 78–79), Shipowner Responsibilities (paras. 80–84), Flag State Responsibilities (paras. 85–86), Recycling State Responsibilities (paras. 87–93); see Informal Working Group, ‘Findings of the comparison of the three sets of guidelines undertaken by an informal intersessional working group’, UN-doc. ILO/IMO/BC WG 2/6.

¹¹² Ibidem, paras. 42, 86, 89, 90, 106, 108; see also the report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its second session (14 December 2005), UN-doc. ILO/IMO/BC WG 2/11, paras. 6.3–6.4.

¹¹³ Central to the concept of PIC is the idea that transboundary movements of waste may only take place after prior written notification of the ‘state of export’ to the ‘state of import’; see Informal Working Group, ‘Findings of the comparison of the three sets of guidelines undertaken by an informal intersessional working group’, UN-doc. ILO/IMO/BC WG 2/6, at paras. 78–79, 84, 114; report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its second session (14 December 2005), UN-doc. ILO/IMO/BC WG 2/11, paras. 6.5–6.6 and 8.9–8.13; see also *infra* chapter “European Ship Recycling Regulation”, A.III.2 (pp. 149–150).

¹¹⁴ Report of the Joint ILO/IMO/BC Working Group on Ship Scrapping on its second session (14 December 2005), UN-doc. ILO/IMO/BC WG 2/11, paras. 8.18–8.22.

¹¹⁵ Ibidem, paras. 7.2–7.3.

3. Diplomatic Conference on Ship Recycling, Hong Kong, 2009

From 11 to 15 May 2009, delegates from 63 states and observers from the European Commission as well as from eight non-governmental organisations attended the ‘IMO Diplomatic Conference on Ship Recycling’ (Diplomatic Conference) in Hong Kong,¹¹⁶ which had been convened following a request by MEPC to the Council of IMO.¹¹⁷ The principal purpose of the conference was to “[...] adopt the draft International Convention for the Safe and Environmentally Sound Recycling of Ships”.¹¹⁸

After 4 days of intense deliberations¹¹⁹ in the Committee of the Whole as well as in specific working groups¹²⁰ on questions such as non-party facilities,¹²¹ the prohibition of ‘beaching’,¹²² the handling of hazardous materials,¹²³ and the entry-into-force provision,¹²⁴ the Diplomatic Conference adopted, as the principal result of its efforts,

¹¹⁶ Final Act of the International Conference on the Safe and Environmentally Sound Recycling of Ships (19 May 2009), IMO-doc. SR/CONF/46.

¹¹⁷ IMO, Council, 97th session (6–10 November 2006), following a request by MEPC, 55th session (9–13 October 2006); see the report of the MEPC on its 55th session (16 October 2006), IMO-doc. MEPC 55/23, at 19.11.

¹¹⁸ IMO Secretariat, ‘Proposed International Conference on Recycling of Ships in the biennium 2008–2009’ (16 August 2006), IMO-doc. MEPC 55/19/4.

¹¹⁹ See, e.g., ‘Ahead of the curve’, Fairplay, 6 August 2009, at 26–27.

¹²⁰ The Conference elected Mr. Xu Zuyuan (China) as President and Mr. Binyah Kesselly (Liberia), Ms Liliana Fernández Puentes (Panama) and Captain Suat Hayri Aka (Turkey) as its Vice-Presidents. It established a Committee of the Whole chaired by Mr. Andreas Chrysostomou (Cyprus) with the mandate to ultimately consider and deliberate on the draft Convention text. Subsequently, it established a Drafting Committee headed by Mr. Charles Darr (USA) in order to facilitate the final drafting of the Convention text. It also established a Credentials Committee, headed by Mr. Md. Masud Elahi (Bangladesh), in order to have the representatives’ credentials approved. Hence, a large number of representatives from important stakeholders in the context of ship recycling was institutionally integrated into the process of adopting the convention.

¹²¹ Submission by Australia to the Diplomatic Conference, ‘Non-Party recycling facilities’, IMO-doc. SR/CONF/9.

¹²² Submission by Greenpeace International and FOEI to the Diplomatic Conference, ‘Ensuring sustainable green and safe ship dismantling – concerning beaching and the establishment of a mandatory fund’, IMO-doc. SR/CONF/14; submission by India to the Diplomatic Conference, ‘Environmental comparison of the beaching method with other methods of recycling of ships’, IMO-doc. SR/CONF/36.

¹²³ Submission by Marshall Islands, Panama, Ukraine, ICS, BIMCO, IACS, OCIMF, INTERTANKO, INTERCARGO and IPTA to the Diplomatic Conference, ‘Proposed amendment to draft regulation 5 – Inventory of Hazardous Materials’, IMO-doc. SR/CONF/23; submission by Marshall Islands and IACS to the Diplomatic Conference, ‘Proposed amendments to appendix 1 – Controls of Hazardous Materials’, IMO-doc. SR/CONF/25.

¹²⁴ Submission by Greenpeace International and FOEI to the Diplomatic Conference, ‘Ensuring sustainable green and safe ship dismantling – concerning the entry into force provisions’, IMO-doc. SR/CONF/13; submission by Denmark to the Diplomatic Conference, ‘Entry-into-force provision’, IMO-doc. SR/CONF/30; submission by Cyprus to the Diplomatic Conference, ‘Entry into force provision’, IMO-doc. SR/CONF/39; for a discussion of this aspect prior to the

the *Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships*, 2009.¹²⁵

C. Regulatory Content

Just as deliberations and bargaining both before and during the Diplomatic Conference ultimately led to the adoption of the Hong Kong Convention, the chapter on the history of the Hong Kong Convention is followed by an overview on its particular regulatory content. Therefore, this section will start with the structure of the agreement, and will continue with a view to the positive, key objectives of the Hong Kong Convention before shifting focus to the different requirements imposed on ships, ship recycling facilities and pertinent reporting bodies.

I. Structure of the Convention

As its core, the Hong Kong Convention contains 21 articles and an annex comprising of another 26 regulations stipulating general provisions as well as specific requirements for ships, ship recycling facilities and reports. This annex is followed by additional seven appendices containing a particular range of forms and checklists which are supposed to facilitate compliance with the provisions of the Hong Kong Convention. Furthermore, seven guidelines have been developed under the auspices of IMO which relate to the implementation of a specific set of major obligations.¹²⁶

II. Key Objectives

The key objectives of the Hong Kong Convention are the protection of both human health and the environment from harm caused by ship recycling, as highlighted in the convention's Article 1.1:

Each Party to this Convention undertakes to give full and complete effect to its provisions in order to prevent, reduce, minimize and, to the extent practicable, eliminate accidents, injuries and other adverse effects on human health and the environment caused by Ship Recycling, and enhance ship safety, protection of human health and the environment throughout a ship's operating life.

Diplomatic Conference, see Corbett, 'Recycling gears up', *Tradewinds*, 8 May 2009, at 58: "A major bone of contention is just how the convention will come into force".

¹²⁵ The text of the Hong Kong Convention is contained in the annex to this study.

¹²⁶ See Conference Resolution 4: 'Future Work by the Organization Pertaining to the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009', IMO-doc. SR/CONF/46, at 10; however, concerns have been raised that the complexity of these guidelines might negatively affect ratification of the Hong Kong Convention; McCarthy, 'Guidelines on ship recycling branded as too complex', *Lloyd's List*, 1 October 2010, at 2.

These objectives must be kept in mind when assessing the efficiency of the Hong Kong Convention after its having entered into force. They will however also be of relevance for the development and implementation of interim ('transitional') measures prior to its entry-into-force.

III. Major Obligations

Major obligations of the convention stipulate requirements for ships, requirements for ship recycling facilities, and reporting requirements.

1. Requirements for Ships

Requirements for ships may generally be divided into three parts: provisions addressing the problem of hazardous materials such as Regulation 4 and Regulation 5; Regulation 9 on the establishment of a ship recycling plan; and finally, the far-ranging Regulation 10 on the establishment of a number of different surveys.

a) Hazardous Materials

As has been shown in the factual introduction to ship recycling, the lack of sophistication in the management of hazardous materials is one of the key problematic issues. This is one of the reasons why the mere existence, as well as the installation and use of hazardous materials on board, will be governed by a number of related and connected provisions of the Convention, the most important of which are contained in Regulation 4 and Regulation 5.1–5.3.

Interestingly, these provisions may also be labelled as a means of ensuring or improving treaty compliance *ex ante*. This expression refers to institutional mechanisms and arrangements that facilitate compliance with the more general objectives of the Convention by setting and imposing certain framework preconditions which are both temporarily and regionally completely separate from the ship recycling process as such.

Regulation 4 reads as follows:

In accordance with the requirements specified in Appendix 1 to this Convention each Party:

- .1 shall prohibit and/or restrict the installation or use of Hazardous Materials listed in Appendix 1 on ships entitled to fly its flag or operating under its authority; and
 - .2 shall prohibit and/or restrict the installation or use of such materials on ships, whilst in its ports, shipyards, ship repair yards, or offshore terminals,
- and shall take effective measures to ensure that such ships comply with those requirements.

Regulation 4 aims at reducing the installation or use of hazardous materials on ships flying the flag or under the authority of a state that is party to the Hong Kong Convention and even attempts to expand this provision to other vessels whilst they are in member states' ports, shipyards, ship repair yards, or offshore terminals.

The relevant parts of Regulation 5 have the following content:

1. Each new ship shall have on board an Inventory of Hazardous Materials. The Inventory shall be verified either by the Administration or by any person or organization authorized by it taking into account guidelines, including any threshold values and exemptions contained in those guidelines, developed by the Organization. The Inventory of Hazardous Materials shall be specific to each ship and shall at least:
 - .1 identify as Part I, Hazardous Materials listed in Appendices 1 and 2 to this Convention and contained in ship's structure or equipment, their location and approximate quantities; and
 - .2 clarify that the ship complies with regulation 4.
2. Existing ships shall comply as far as practicable with paragraph 1 not later than 5 years after the entry into force of this Convention, or before going for recycling if this is earlier, taking into account the guidelines developed by the Organization and the Organization's Harmonized System of Survey and Certification. [...]
3. Part I of the Inventory of Hazardous Materials shall be properly maintained and updated throughout the operational life of the ship, reflecting new installations containing Hazardous Materials listed in Appendix 2 and relevant changes in ship structure and equipment, taking into account the guidelines developed by the Organization.

These provisions for the handling of hazardous materials set a clear example for the Hong Kong Convention's aim of establishing a legal framework accompanying a ship from 'cradle to grave'.¹²⁷ With regard to the construction of new ships by state parties to the Hong Kong Convention, Regulation 4.1 prohibits, or at least restricts, the installation of specified hazardous materials. After the completion of construction, Regulation 5.1 demands the establishment of an inventory of hazardous materials regarding any materials specified in Appendix 1, the installation or use of which has only been restricted, as well as such materials as specified by Appendix 2. Throughout the operational life of the ship, those inventory elements reflecting hazardous materials as specified by Appendices 1 and 2 have to be maintained and updated with regard to relevant changes in ship structure and equipment as stated by Regulation 5.3. As the use of hazardous materials specified by Appendix 1 is already prohibited by Regulation 4.1 to a large extent, the provision regarding maintenance and update will in most instances only relate to hazardous materials specified by Appendix 2. Prior to recycling, a final survey is to be conducted in order to verify whether the inventory is in accordance with the Hong Kong Convention's requirements.

Existing ships face a slightly modified framework of obligations: They have to comply with Regulation 4 and Regulation 5.1 "as far as practicable" not later than 5 years after the Hong Kong Convention's entry into force. In case they go for recycling in the meantime, the same obligations apply *mutatis mutandis*.

The objective behind establishing an inventory of hazardous materials on board each new ship is to gather exact information regarding the location and the amount

¹²⁷ The "cradle to grave"-approach in international environmental regulation has been introduced with specific regard to such toxic products which impose huge threats on the environment; it means that the whole lifecycle of these products or processes has to be regulated; cf. Kiss/Shelton, *International Environmental Law*² (2000), at 66; Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 118.

of hazardous materials in order to facilitate recycling procedures and to improve the possibilities of protecting human health and the environment during the recycling process.

The establishment of such an inventory of hazardous materials supports compliance with the broader objectives of the Hong Kong Convention at an early stage in the life cycle of a particular ship, thereby facilitating treaty compliance *ex ante*.

b) Ship Recycling Plan

The ship recycling plan is based upon the rationale of facilitating and bundling activities undertaken by the ship recycling facility and the shipowner in order to institutionally grant access to data and information from the latter to the former. The relevant obligations are stipulated by Regulation 9:

A ship-specific Ship Recycling Plan shall be developed by the Ship Recycling Facility(ies) prior to any recycling of a ship, taking into account the guidelines developed by the Organization. The Ship Recycling Plan shall:

- .1 be developed taking into account information provided by the shipowner;
- .2 be developed in the language accepted by the Party authorizing the Ship Recycling Facility [. . .];
- .3 include information concerning inter alia, the establishment, maintenance, and monitoring of Safe-for-entry and Safe-for-hot work conditions and how the type and amount of materials including those identified in the Inventory of Hazardous Materials will be managed;

Of relevance are several minor points: The actor responsible for the development of the ship recycling plan is the ship recycling facility; the ship owner, on the other hand, has to provide relevant information in order to facilitate this process; and finally, the ship recycling plan has to include information on the establishment, maintenance, and monitoring of safe-for-entry/safe-for-hot work working conditions¹²⁸ and on the management of (hazardous) materials involved.

c) Surveys

Ship-related requirements are complemented by a number of surveys to be conducted during a ship's life cycle. Regulation 10.1 states the points of time when specific surveys are compulsory:

Ships to which this Convention applies shall be subject to the surveys specified below:

- .1 an initial survey before the ship is put in service [. . .]. This survey shall verify that Part I of the Inventory required by regulation 5 is in accordance with the requirements of this Convention;
- .2 a renewal survey at intervals specified by the Administration, but not exceeding five years. This survey shall verify that Part I of the Inventory of Hazardous Materials required by regulation 5 complies with the requirements of this Convention;

¹²⁸ See Regulations 1.6 and 1.7 HKC.

- .3 an additional survey, either general or partial, according to the circumstances, may be made at the request of the shipowner after a change, replacement, or significant repair of the structure, equipment, systems, fittings, arrangements and material. The survey shall be such as to ensure that any such change, replacement, or significant repair has been made in the way that the ship continues to comply with the requirements of this Convention, and that Part I of the Inventory is amended as necessary; and
- .4 a final survey prior to the ship being taken out of service and before the recycling of the ship has started. [...]

As seen in the case of the provisions relating to hazardous materials, effectively the same applies with regard to the surveys to be conducted: The regulation follows an approach from the beginning of the operational life of a ship to its very end ('cradle to grave'); surveys, largely only aiming at securing compliance with Regulation 5, have to be conducted before a ship is put in service, they have to be renewed after a specified period of time, a further renewal may additionally be requested under certain circumstances, and a final one is due prior to recycling. The final survey will be the most far-reaching one insofar as it shall verify and serve as a means of checking the inventory of hazardous materials, the contents of the ship recycling plan as well as the general validity of the ship recycling facility's authorisation. The 'Administration' being the "Government of the State whose flag the ship is entitled to fly, or under whose authority it is operating"¹²⁹ has to approve of the final survey by issuing an 'International Ready for Recycling Certificate'.¹³⁰

2. Requirements for Ship Recycling Facilities

Regulations 15–23 affect ship-recycling facilities by stating certain standards which must be complied with. Regulations 17 and 18 addressing the general requirements and the ship recycling facility plan are central to the regulating chapter on ship recycling facilities.

Regulation 17 is written in the following terms:

1. Ship Recycling Facilities authorized by a Party shall establish management systems, procedures and techniques which do not pose health risks to the workers concerned or to the population in the vicinity of the Ship Recycling Facility and which will prevent, reduce, minimize and to the extent practicable eliminate adverse effects on the environment caused by Ship Recycling, taking into account guidelines developed by the Organization.
2. Ship Recycling Facilities authorized by a Party shall [...]:
 - .1 only accept ships that:
 - .1 comply with this Convention; or
 - .2 meet the requirements of this Convention;
 - .2 only accept ships which they are authorized to recycle; and

¹²⁹ Article 2.2 HKC.

¹³⁰ See Regulation 11.11 HKC.

- .3 have the documentation of its authorization available if such documentation is requested by a shipowner that is considering recycling a ship at that Ship Recycling Facility.

By stating the requirements for the ship recycling facility plan, Regulation 18 sets out a more detailed picture of how future ship recycling facilities should be managed in order to comply with the major objectives of the Hong Kong Convention:

Ship Recycling Facilities authorized by a Party shall prepare a Ship Recycling Facility Plan. The Plan shall be adopted by the board or the appropriate governing body of the Recycling Company, and shall include:

- .1 a policy ensuring workers' safety and the protection of human health and the environment, including the establishment of objectives that lead to the minimization and elimination to the extent practicable of the adverse effects on human health and the environment caused by Ship Recycling;
- .2 a system for ensuring implementation of the requirements set out in this Convention, the achievement of the goals set out in the policy of the Recycling Company, and the continuous improvement of the procedures and standards used in the Ship Recycling operations;
- .3 identification of roles and responsibilities for employers and workers when conducting Ship Recycling operations;
- .4 a programme for providing appropriate information and training of workers for the safe and environmentally sound operation of the Ship Recycling Facility;
- .5 an emergency preparedness and response plan;
- .6 a system for monitoring the performance of Ship Recycling;
- .7 a record-keeping system showing how Ship Recycling is carried out;
- .8 a system for reporting discharges, emissions, incidents and accidents causing damage, or with the potential of causing damage, to workers' safety, human health and the environment; and
- .9 a system for reporting occupational diseases, accidents, injuries and other adverse effects on workers' safety and human health, taking into account guidelines developed by the Organization.

If one compares the density of regulation for the provisions addressing requirements for ships with those stating requirements for ship recycling facilities, a massive imbalance in terms of regulatory scope can easily be detected. The rationale behind this lack of balance may be found with regard to the key objectives of the Convention mentioned above:

[...] to prevent, reduce, minimize and, to the extent practicable, eliminate accidents, injuries and other adverse effects on human health and the environment caused by Ship Recycling [...].

With human health risks related to and environmental harm caused by ship recycling being the primary arguments for the regulation of ship recycling, both the location and the process of ship recycling present the main and most efficient regulatory starting points.

3. Reporting Requirements

Regulations 24 and 25 contain notification and reporting requirements, thus comprising the final category of obligations. They primarily address the ship recycling facility, but require a certain quality of cooperation by the shipowner. By regulating the whole ship recycling process from the intention of the shipowner to recycle a ship until the completion of the recycling procedure and by constantly involving official and private stakeholders, these regulations essentially cover also the recycling process from ‘cradle to grave’.

In substance they first of all require the shipowner to notify the “Government of the State whose flag the ship is entitled to fly, or under whose authority it is operating” (‘Administration’)¹³¹ of the intention to recycle the ship. This requirement is complemented by obligations addressed at the ship recycling facility to deliver—prior to recycling—specific sets of information to the relevant national authority. These sets of information include, *inter alia*, the ship’s IMO registration number, its name and type as well as the port at which it is registered. Finally, after completion of the recycling process, the ship recycling facility is required to issue a ‘Statement of Completion’ to be reported to its relevant national authority which has been designated to control and regulate the operation of ship recycling facilities (‘Competent Authority(ies)’).¹³² Subsequently, this national authority is required to send a copy of the statement to the ‘Administration’ having issued the ‘International Ready for Recycling Certificate’ for the ship in the first place.

In the end, these reporting requirements provide, as a whole, just a further procedural vehicle ensuring and guaranteeing the completeness of the chain of information regarding a particular ship’s life cycle.¹³³

D. Findings

The Hong Kong Convention has been developed over the last decade. In the course of deliberations it has successfully gathered a great number of stakeholders around the table, thus allowing a vast variety of differing views to be represented

¹³¹ Article 2.2 HKC.

¹³² Article 2.3 HKC.

¹³³ Similarly to many other obligations stipulated, questions of compliance and enforcement have not yet been addressed, but have mainly been left open for discussion once the Hong Kong Convention will have entered into force. Nonetheless, by stipulating that ship recycling shall not start prior to the submission of a report by the ship recycling facility to its ‘Competent Authority’ indicating the planned start of the recycling procedures and including a copy of the ‘International Ready for Recycling Certificate’, Regulation 24.3 aims at institutionally securing compliance with its provisions. Due to the fact that no authority is however entitled to control the point in time the recycling operations have started and due to Regulation 24.3 focussing on the submission of the report to the ‘Competent Authority’ instead of requiring an official approval, the effectiveness of the provision may be somewhat questionable.

in one way or another.¹³⁴ Particularly with regard to joint efforts by IMO, ILO and the Basel Convention Secretariat, the regulative history of the Hong Kong Convention may be depicted as a milestone. This development furthered a common understanding that ship recycling standards have to be improved and that the relevant industry cannot carry on as it is.¹³⁵ The procedural chain of documentation, as established by the Hong Kong Convention, supposedly serves as a safeguard to ensure compliance *ex ante*.¹³⁶ Whether it continues as a success story by finally being ratified in the manner stipulated by its entry-into-force requirements is still a reasonable aspiration, although scepticism has been growing in this respect ever since the end of the Diplomatic Conference.¹³⁷ The reasons for doubt and uncertainty will be explained and analysed in detail in the forthcoming chapter on the entry-into-force provision.

¹³⁴ Increased participation could provide a first step to tackle the problem of the international environmental process being perceived as illegitimate and 'insufficiently democratic'; see Bodansky, 'The Legitimacy of International Governance: A Coming Challenge for International Environmental Law?', 93 A.J.I.L. 596 (1999), at 596, 606–610, 617–623; Hahn/Richards, 'The Internationalization of Environmental Regulation', 30 Harv. Int'l L. J. 421 (1989), at 437.

¹³⁵ McCarthy, 'Ship recycling looks to clean up its reputation', Lloyd's List, 1 July 2010, at 4; 'Ship recycling talks fall short of pledge', Tradewinds, 27 May 2010, at 15.

¹³⁶ Oftedal, 'The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009', Ship Scrapping & Recycling (Lloyd's Maritime Academy seminar, 2009), at 11.

¹³⁷ As a point of fact, the entry-into-force provision provided for the severest discussions and the most disagreement among the delegates at the conference. Whereas observers had predicted the Hong Kong Convention to eventually enter into force by 2015 prior to the final deliberations in Hong Kong, their predictions became more and more sceptical as the definite content of the entry-into-force provision emerged.

Entry-into-Force Provision

At first glance, entry-into-force requirements aim at securing the fulfilment of a number of rather formal elements before their respective international treaties become legally valid and exert a ‘compliance pull’ on their parties. In the past decades, however, debates regarding entry-into-force were quite often the key and—at the same time—the most controversial discussions in the whole drafting process.¹ Hence, the wording of these provisions is much more than merely a formal issue.² The exact phrasing of the provision may even serve as a mirror to the substance of the whole agreement for which it is intended.³ Furthermore, it might indicate the structure of underlying forces influencing the drafting process as well as the delimitation of respective power blocs.⁴

¹ With regard to discussions relating to the entry-into-force provision of the 2001 International Convention on the Control of Harmful Anti-Fouling Systems on Ships, see, e.g., the article ‘Entry into force: the key issue’, *Fairplay* (6 September 2001), at 42: “Indeed, such has been the intensity of the debate on this issue that it has raised questions all of its own about power blocs within IMO, the existence of the so-called ‘North-South divide’ within the organisation, and about the very means by which important legislation such as the global anti-fouling ban should be enforced”.

² See the submission by Japan to MEPC 57, ‘Draft conditions on entry into force’ (8 February 2008), IMO-doc. MEPC 57/3/13, para. 2: “Japan believes that the Marine Environment Protection Committee [...] should have common views, as soon as possible, on the conditions on entry into force which is a significant element of the Convention”; see also Guzman, *How International Law Works* (2008), at 180: “[...] all the choices states make when they negotiate an agreement are part of the effort to get the greatest possible benefits. Though this may seem obvious, it has important implications for how we think of the resulting agreements. It allows us to understand more clearly that form and substance are closely connected. More stringent substantive provisions increase the burden placed on states, but so do credibility-enhancing formal provisions”.

³ Klabbers, *The Concept of Treaty in International Law* (1996), at 75.

⁴ See Szasz, ‘General Law-Making Process’, in Schachter/Joyner (eds.), *United Nations Legal Order*, vol. II (1995), 35, at 87: “Evidently, specification of the entry-into-force requirements is not an arbitrary one, but is an important political decision related to the type of instrument in question”; see also the submission by Japan to MEPC 57, ‘Progress report on the work related to the requirements for ship recycling facilities including the trial ship recycling project and the proposal for future work plan’ (25 January 2008), IMO-doc. MEPC 57/3/6, para. 14: “[...] the

Against this background, the following chapter will begin with a short introduction to the legal manner international agreements are concluded and the steps to be taken until they eventually enter into force and become legally binding (A.). Subsequently, the focus will be shifted to the elements of the entry-into-force provision stipulated by Article 17.1 of the Hong Kong Convention which will be presented and analysed in detail. This section will also focus on the factual situation of the worldwide status quo with regard to each requirement (B.). The following section will provide an illustration, not only of the rationale behind every element of the provision, but also of the provision's specific history as well as of some systematic and teleological considerations (C.). Due to the importance of economic incentives in the process of ratification, the next section will then continue with an economic analysis of the Hong Kong Convention in order to illustrate the economic incentives' structure employed. This approach is justified by the fact that these economic findings confirm the conclusion of the previous sections, providing a big picture analysis of the practical implications of the entry-into-force provisions (D.). The findings of this chapter will be summarised in the conclusion (E.).

A. The Conclusion of International Treaties

In order to understand the function of an entry-into-force provision and its implications, the legal environment and the general legal context must be considered. Requirements of entry-into-force provisions are the final conditions to be fulfilled before an international treaty comes into existence, thus becoming legally binding for ratifying states. From a different perspective: The fulfilment of the entry-into-force provision is an ultimate key requirement and—at the same time—one of the major obstacles to an international treaty becoming legally binding.⁵

Related procedural questions with a view to the “anarchic nature of world affairs”⁶ will be presented in this section, including how the legislative process is regulated, its sources and the ultimate question of what an individual state essentially must do in order to support an international treaty's entry-into-force.

length of the interim period will be very much dependent on how the conditions on entry into force are set under the draft Convention, as well as on the political will of potential Parties to ratify the Convention”.

⁵ In this context, it is imperative to distinguish legal implications of a validated international agreement from the rather sterile and theoretical debate whether international law actually can be regarded as ‘law’ in its strictest sense, therefore being capable of imposing legal obligations on its subjects; the former issue will be presented in the forthcoming chapter, while the latter question is left to others; for further references, see Klabbers, *The Concept of Treaty in International Law* (1996), at 37–38.

⁶ Shaw, *International Law*⁶ (2008), at 70.

1. The Vienna Convention on the Law of Treaties

International treaties, alongside customary international law and general principles of law, form the most fundamental source of international law.⁷ The concept of the term ‘international treaty’ is defined by Article 2.1(a) of the 1969 Vienna Convention on the Law of Treaties (VCLT)⁸ as follows:

[...] treaty means an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation;

Accordingly, an international treaty is an agreement between states⁹ governed by international law employed to regulate states’ behaviour and/or relations.¹⁰

In order to oversee and regulate the conclusion of treaties by states in a way that ensures both legal clarity and practical consistency, general procedures relating to the conclusion of international treaties have also been laid down in the VCLT.¹¹ It is agreed by and large that the VCLT’s main content falls under customary international law,¹² with the result that even states not party to the VCLT are

⁷ See Article 38, para. 1 of the Statute of the International Court of Justice which is considered “the most authoritative statement as to the sources of international law”; see also Shaw, *International Law*⁶ (2008), at 70; Brownlie, *Principles of Public International Law*⁷ (2008), at 5.

⁸ Vienna Convention on the Law of Treaties (adopted 22 May 1969, entered into force 27 January 1980).

⁹ Sometimes, for practical reasons, attempts are made to include other legal entities of public international law such as international organisations or national liberation movements actively participate as equal members in those agreements; for further details, see, e.g., Schweisfurth, *Völkerrecht* (2006), chapter 2, para. 22. In case of the Hong Kong Convention, however, only states have the possibility of becoming members, see Article 16.2 HKC: “States may become Parties to this Convention by [...]”.

¹⁰ See Shaw, *International Law*⁶ (2008), at 93: “the creation of written agreements whereby the states participating bind themselves legally to act in a particular way or to set up particular relations between themselves”; the scope of application in both geographic as well as substantial perspective is usually addressed by labelling particular international treaties as either ‘law-making’ or ‘treaty-contracts’; the former term refers to treaties supposedly of common and often global relevance, whereas the latter expression only refers to treaties concluded between a few states; see, e.g., Thirlway, ‘The Sources of International Law’ in Evans (ed.), *International Law*² (2006), 115, at 119; Shaw, *International Law*⁶ (2008), at 94–98; Klabbers, *The Concept of Treaty in International Law* (1996), at 40–64; Jennings/Watts, *Oppenheim’s International Law*⁹, vol. 1 (1996), at § 583.

¹¹ This convention does not, however, impose absolute restrictions on the behaviour of states as their sovereignty generally guarantees freedom in terms of modalities and form; see Cassese, *International Law*² (2005), at 172.

¹² See, e.g., ICJ, *Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) notwithstanding Security Council Resolution 276 (1970)*, Advisory Opinion of 21 June 1971, ICJ Reports 1971, 16, at 47: “The rules laid down by the Vienna Convention on the Law of Treaties concerning termination of a treaty relationship on account of breach (adopted without a dissenting vote) may in many respects be considered as a codification of existing customary law on the subject”.

bound by its substance.¹³ Therefore, the VCLT is widely recognized as being one of the most authoritative international treaties so far concluded.¹⁴

The legislative procedures stipulated by the VCLT usually are applied after pre-negotiation and negotiation stages aimed at reaching agreement on the issues in question.¹⁵ The agreement will then be adopted,¹⁶ authenticated and signed at an international conference before it is sent to the individual states in order to be domestically approved and subsequently ratified.¹⁷ Before the treaty actually enters into force,¹⁸ a provision typically requires that a fixed number of states express their consent to be bound by the substantial parts of the treaty.¹⁹ This requirement may be complemented by additional entry-into-force conditions that need to be satisfied.²⁰

Until these entry-into-force requirements are fulfilled, signatory states are not bound by the substance of the treaty, although they are obliged not to act in a way that would defeat the object and purpose of a treaty prior to its entry into force.²¹

¹³ See, e.g., Shaw, *International Law*⁶ (2008), at 95: “where treaties reflect customary law then non-parties are bound, not because it is a treaty provision but because it reaffirms a rule or rules of customary international law.”; Thirlway, ‘The Sources of International Law’ in Evans (ed.), *International Law*² (2006), p. 115, 122.

¹⁴ Aust, *Modern Treaty Law and Practice*² (2007), at 6.

¹⁵ Klabbbers, ‘Treaties, Conclusion and Entry into Force’ in Wolfrum (ed.), *M.P.E.P.I.L.* (September 2006, online), para. 2.

¹⁶ Article 9, para. 2 VCLT provides that adoption “[...] takes place by the vote of two thirds of the States present and voting, unless by the same majority they shall decide to apply a different rule.”; see the practice of the United Nations General Assembly as recognised in Article 18, para. 2 UNCh.

¹⁷ Article 10 VCLT; see also Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties* (2009), Article 10 para. 1: “Signature has long been the accepted method of authenticating a text”; in case of politically less sensitive agreements, the signing of an agreement serves as sufficient consent and leads directly to the agreement entering into force; in this context, see Article 12, para. 1 VCLT: “1. The consent of a State to be bound by a treaty is expressed by the signature of its representative when: (a) the treaty provides that signature shall have that effect; (b) it is otherwise established that the negotiating States were agreed that signature should have that effect; or (c) the intention of the State to give that effect to the signature appears from the full powers of its representative or was expressed during the negotiation”.

¹⁸ For further references in this context, see Roucouas, ‘Uncertainties Regarding the Entry Into Force of Some Multilateral Treaties’, in Wellens (ed.), *Essays in Honour of Eric Suy* (1998), 179, at 181–182.

¹⁹ Pursuant to Article 11 VCLT, “[t]he consent of a State to be bound by a treaty may be expressed by signature, exchange of instruments constituting a treaty, ratification, acceptance, approval or accession, or by any other means if so agreed”.

²⁰ A thorough analysis of the elements of the entry-into-force provisions as stipulated in the Hong Kong Convention will be conducted in the following parts of this study; see chapter “Entry-Into-Force Provision”, B (pp. 52–58).

²¹ See Article 18 VCLT: “A State is obliged to refrain from acts which would defeat the object and purpose of a treaty when: (a) it has signed the treaty or has exchanged instruments constituting the treaty subject to ratification, acceptance or approval, until it shall have made its intention clear not to become a party to the treaty; or (b) it has expressed its consent to be bound by the treaty, pending the entry into force of the treaty and provided that such entry into force is not unduly delayed”.

II. Relevant Provisions of the Hong Kong Convention

Usually, an agreed and authenticated convention enters into force “in such manner and upon such date as it [the treaty] may provide or as the negotiating States agree.”²²

Article 16.1–.2 HKC therefore provides the following:

1. This Convention shall be open for signature by any State at the Headquarters of the Organization from 1 September 2009 to 31 August 2010 and shall thereafter remain open for accession by any State.
2. States may become Parties to this Convention by:
 1. signature not subject to ratification, acceptance, or approval; or
 2. signature subject to ratification, acceptance, or approval, followed by ratification, acceptance or approval; or
 3. accession.

In order for states to become parties to the Hong Kong Convention, they consequently have to either unconditionally or conditionally sign and subsequently ratify, accept, or approve the text; after the Convention has entered into force, states may still accede to it. According to Article 2.1(b) VCLT, “ ‘ratification’, ‘acceptance’, ‘approval’ and ‘accession’ mean in each case the international act so named whereby a State establishes on the international plane its consent to be bound by a treaty”.²³

Consequently, ‘ratification’ does not refer to the internal and maybe constitutionally necessary steps of domestic approval in parliament, but only to the effective external and binding expression of the state’s intent to be legally bound by an international agreement.²⁴ The same also applies to acceptance, approval, and accession.

III. Legal Implications of Entry-into-Force

Entry-into-force of an international agreement results in a number of legal implications the most important of which is encompassed by the classic notion of *pacta sunt servanda*.²⁵ There are also a few minor implications that result from a treaty entering into force.

The *pacta sunt servanda* principle first and foremost means that the rules and provisions of the legal regime in question have to be complied with in good faith.²⁶

²² Article 24.1 VCLT; for further details, see Aust, *Modern Treaty Law and Practice*² (2007), at 162–177.

²³ The term ‘ratification’ is used in the following parts as also encompassing the acceptance of, the approval of or the accession to an international treaty.

²⁴ See, inter alia, Cassese, *International Law*² (2005), at 172.

²⁵ Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties* (2009), Article 24 para. 4, Article 26.

²⁶ Article 26 VCLT; see Klabbers, *The Concept of Treaty in International Law* (1996), at 38.

Accordingly, it is the rule of *pacta sunt servanda* which ultimately renders international agreements legally binding.²⁷ Hence, the point of time the requirements of the entry-into-force provision of the Hong Kong Convention are actually met renders the provisions of the agreement legally valid rights and obligations of its parties.²⁸

Of course, some negative implications also follow from the entry-into-force of a particular international agreement. There will always be some stakeholders who feel their position is not adequately represented in the final result of the negotiations. Whereas their concerns have in all probability been covered by the *travaux préparatoires* to the agreement, the final text may nevertheless contain no reference to their views at all.²⁹ This could be considered an inevitable consequence of the process of the debate or the practical necessity of finding a compromise; but it still is questionable whether the issues that formed the basis of their concerns have eventually been legitimised.³⁰

B. Entry-into-Force Conditions

The entry-into-force provision, as established by Article 17.1 of the Hong Kong Convention, states three conditions, all of which have to be fulfilled in order to have the Hong Kong Convention enter into force. The conditions are threefold insofar as they stipulate minimum thresholds with regard to the number of states, the percentage of world merchant tonnage represented and a certain relative amount of ship recycling capacity. These prerequisites will be presented in detail in this section, which then serves as a basis for later analysis.

²⁷ Klabbers, *The Concept of Treaty in International Law* (1996), at 39; de Vattel, *Le Droit des Gens, ou Principes de la Loi Naturelle*, vol. II (1758), §§ 219–221; Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties* (2009), Article 26 para. 4; note, however, the criticism by Amado during the deliberations in the ILC, *Yearbook ILC 1965-I*, at 103 para. 42: “[...] what was the use of saying that a State was bound when it was bound”.

²⁸ See Anderson, *Modern Law of the Sea* (2008), at 56: “Entry into force marks and formalises the change”; Lavalley, ‘About the alleged customary law nature of the rule *Pacta sunt servanda*’, 33 *OZöRV* 9 (1982), at 20–21.

²⁹ In the context of the entry-into-force of UNCLOS, see Anderson, *Modern Law of the Sea* (2008), at 56.

³⁰ Because the Diplomatic Conference was not able to reach an agreement regarding the prohibition of the disputable method of ‘beaching’ from the set of accepted ship recycling procedures, a number of non-governmental organisations felt that entry-into-force might ultimately result in a legitimisation *ex post facto* of the notorious practice; far from agreeing however with the – inconclusive – submission by India to the Diplomatic Conference, ‘Environmental comparison of the beaching method with other methods of recycling of ships’, IMO-doc. SR/CONF/36, delegations at the conference considered ‘beaching’ a necessary evil in order not to substantially reduce available ship recycling capacity; see also Wallis, ‘New convention slammed for legitimising beaching of ships’, *Lloyd’s List*, 18 May 2009, at 1.

I. Number of States

The first requirement of Article 17.1 specifies the number of ratifications necessary for the Hong Kong Convention to enter into force; the first condition therefore requires that:

not less than 15 States have either signed it without reservation as to ratification, acceptance or approval, or have deposited the requisite instrument of ratification, acceptance, approval or accession in accordance with Article 16

The provision allows for two distinctive types of legal consent to the Hong Kong Convention. The first type necessitates a signature without reservation as to ratification, acceptance or approval; the alternative requires the deposition of a specific instrument of ratification, acceptance, approval or accession in accordance with Article 16.

Independent of its formal procedure, 15 states have to agree, in a legally valid manner, to be bound by the obligations of the Hong Kong Convention.

II. Tonnage

The second requirement of Article 17.1 specifies the ratio of the world's merchant fleet which has to be represented by those states that have signed the Hong Kong Convention before it enters into force:

the combined merchant fleets of the States mentioned [...] constitute not less than 40 per cent of the gross tonnage of the world's merchant shipping;³¹

To evaluate whether 40 % of the gross tonnage of the world's merchant shipping fleet can realistically be required, one has to consider the *status quo* of the world ocean-going merchant fleet. A glance at the numbers from previous years might furthermore serve as an indication for future development. Further, more thorough investigation of the general attitude of major actors may complement this preliminary assessment.

The following table (*see* Table 1)³² provides an overview of the recent changes in the major flags of registry ranking the ten leading merchant fleets (in descending order of present gross tonnage):

³¹ Gross tonnage (GT) is an index established by the 1969 International Convention on Tonnage Measurement of Ships in order to measure the overall size of a ship; see Article 2.4 and Annex 1, Regulation 3 of the Tonnage Convention; deadweight tons (DWT), on the other hand, is a measure indicating how much weight a ship can safely carry.

³² Compiled on the basis of data as provided by Lloyd's Register Fairplay, World Fleet Statistics 2009 (2010), at 23–29; and Lloyd's Register Fairplay, World Fleet Statistics 2010 (2011), at 23–28.

Table 1 Flags of registry, 2006–2010

	Totals 2006 (GT)	Totals 2007 (GT)	Totals 2008 (GT)	Totals 2009 (GT)	Totals 2010 (GT)	World fleet 2010 ^a
Panama	154,964,649	168,165,548	183,503,499	190,663,127	201,264,453	21.01 %
Liberia	68,405,100	76,572,645	82,389,489	91,695,845	106,708,344	11.14 %
Marshall Islands	32,840,480	35,964,159	42,636,787	49,088,266	62,011,182	6.47 %
Hong Kong	32,684,852	35,816,230	39,100,472	45,338,273	55,543,246	5.80 %
Bahamas	40,830,744	43,739,148	46,542,634	48,119,081	50,369,836	5.26 %
Singapore	32,173,922	36,251,735	39,885,781	41,046,576	44,869,918	4.68 %
Greece	32,048,052	35,704,485	36,822,333	38,910,582	40,795,358	4.26 %
Malta	24,849,818	27,754,385	31,633,307	35,036,988	38,737,657	4.04 %
China	23,488,427	24,918,518	26,811,081	30,077,129	34,705,141	3.62 %
Cyprus	19,032,189	18,954,288	20,109,441	20,168,906	20,732,488	2.16 %

^aThe world's merchant fleet currently accounts for a total of 957,982,304 GT; see Lloyd's Register Fairplay, World Fleet Statistics 2010 (2011), at 28

From the table the following figures catch the eye: In 2010, the top ten flags of registry comprised more than 65 % of the world's total ocean-going merchant fleet, with its top five flags of registry accounting for almost 50 %. Given these figures and corresponding data, a few further results can be deducted:

Firstly, it is quite obvious that without these top ten flags of registry the entry-into-force requirements cannot be fulfilled as the remaining flags of registry only account for a total of roughly 30 % of the world's merchant fleet in terms of tonnage. Secondly, taking into account the general hesitance of the top four flags of registry to consent to novel provisions regulating shipping,³³ it can easily be predicted that these 43.9 % will tend more towards adopting a 'wait and see' approach. And thirdly, even if every European Union flag of registry ratified the Hong Kong Convention, this group would only account for 171,257,075 GT or roughly 17.9 %.³⁴

Hence, the expectation that a combined total tonnage of more than 40 % of the world merchant fleet will ratify the Hong Kong Convention seems to be quite optimistic. This is compounded by the nature of the market for ship recycling services, i.e. ship recycling capacity. This capacity will initially³⁵ decrease as a result of the distinction between 'standard' or 'high-standard' ship recycling on the one side, and 'sub-standard' ship recycling on the other side, as a direct result of the

³³ See Tan, Vessel-Source Marine Pollution (2005), at 102, 351–352; see also Mikelis, 'The Hong Kong Convention on Ship Recycling', European Maritime Safety Agency Ship Recycling Workshop 2011, at 11.

³⁴ Data also provided by Lloyd's Register Fairplay, World Fleet Statistics 2010 (2011), at 23–28.

³⁵ This, however, will only be an initial effect: if the Hong Kong Convention is applicable to a critical volume of the world's merchant tonnage, "market forces will ensure that there will be facilities willing to recycle these ships, or even make the necessary changes to ensure compliance with the Convention"; submission by Denmark to the Diplomatic Conference, 'Entry-into-force provision', IMO-doc. SR/CONF/30, para. 7.

strict segmentation of the previously single market through the Hong Kong Convention.³⁶ This reduction of ship recycling capacity will quite definitely occur³⁷ and might only slightly be ameliorated by the fact that the process of re-flagging an individual ship to an open registry not party to the Hong Kong Convention is not much of an administrative or financial burden. Nonetheless, these considerations might discourage flag states from ratifying the Hong Kong Convention.³⁸ On the other hand, if these requirements are satisfied at some point in the future, this means that quite a substantial part of the world's merchant fleet is bound by the obligations established by the Hong Kong Convention, thus stepping closer to universality.

III. Recycling Capacity

The third parameter stipulated by Article 17.1 requires a certain percentage of the world's ship recycling capacity:

the combined maximum annual ship recycling volume of the States mentioned in paragraph 1.1 during the preceding 10 years constitutes not less than 3 per cent of the gross tonnage of the combined merchant shipping of the same States.

The technical wording of this requirement makes it difficult to comprehend. The main idea is that those states having ratified the Hong Kong Convention have the necessary combined recycling capacity available to have their ships recycled, i.e. to be able to serve their own needs. The requirement therefore basically states that their combined maximum annual ship recycling volume should constitute at least 3 % of their combined merchant fleet gross tonnage.

As it took several instances even at the Diplomatic Conference to understand what Japan's proposal³⁹ precisely suggested, it was immediately agreed that the

³⁶ See the submission by Japan to MEPC 57, 'Draft conditions on entry into force' (8 February 2008), IMO-doc. MEPC 57/3/13, para. 3; similar in this respect were the comments by the Bahamas, Australia, the Marshall Islands, Denmark and the United Kingdom on Article 17 during the deliberations in the 'Committee of the Whole' at the Diplomatic Conference.

³⁷ For a sceptical opinion regarding similar circumstances, see Barrett, 'An Economic Theory of International Environmental Law', in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 231, at 255: "Plainly, no country can lose by ratifying such an agreement. If the agreement fails to enter into force, the countries that ratified it would not have to change their behaviour – and so would be no worse off for having ratified it. If, however, the agreement does enter into force, then all countries will choose to ratify it, and every country will be strictly better off"; yet, this view does not take into account that, firstly, a reduction in terms of available ship recycling capacity will probably result in higher prices for the services offered, and, secondly, the entry-into-force will quite definitely not exert a sudden ratification pull on states which have not ratified the agreement so far.

³⁸ See the submission by India to MEPC 58, 'Recycling capacity for entry into force criteria for the International Convention for the Safe and Environmentally Sound Recycling of Ships' (13 August 2008), IMO-doc. MEPC 58/3/14, para. 3; for a flag state perspective in this respect, see the submission by Cyprus to the Diplomatic Conference, 'Entry-into-force provision', IMO-doc. SR/CONF/39.

³⁹ For Japan's submission, see IMO-doc. MEPC 57/3/13.

requirement should be explicitly explained in a different document.⁴⁰ This was done by an MEPC resolution adopted on 19 July 2009. The manner the Secretary-General should calculate the ship recycling capacity status⁴¹ is explained as follows:

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[...]

INVITES the Secretary-General, when calculating the combined maximum annual ship recycling volume of Contracting States as required by article 17 of the Convention, to refer to annually published statistical data on recycled gross tonnage of shipping, on the following basis:

1. for each Contracting State, extract the “annual ship recycling volume” for each of the preceding 10 years, by reference to the data on total gross tonnage provided in the table on disposals by country of breaking in that year’s Lloyd’s Register-Fairplay annual publication World Casualty Statistics; and
2. determine ‘the maximum annual ship recycling volume’ by selecting the highest value occurring in the 10-year period for each Contracting State.⁴²

Carrying out this calculation for the most interesting actors in the game leads to the following dynamic table (*see* Table 2),⁴³ with the figures in bold indicating the ‘maximum annual ship recycling volume’ of each major ship recycling state for the term 2001–2010:

⁴⁰ See the report of the MEPC on its 58th session (16 October 2008), IMO-doc. MEPC 58/23, para. 3.26.

⁴¹ Being the depositary, it is the task of the Secretary-General of the IMO to decide upon the status of fulfilment of the entry-into-force conditions as established by IMO conventions; see the report of the intersessional correspondence group on ship recycling (3 July 2008), IMO-doc. MEPC 58/3/3, para. 24.5.

⁴² IMO Secretariat, ‘Proposed MEPC resolution on the calculation of recycling capacity for meeting the Convention’s entry-into-force conditions’, Annex to IMO-doc. MEPC 59/3/9; Annex 1 to the report of the MEPC on its 59th session (28 July 2009), IMO-doc. MEPC 59/24/Add.1.

⁴³ The table’s figures are extracted from the following sources: Lloyd’s Register Fairplay, World Casualty Statistics 2001 (2002); Lloyd’s Register Fairplay, World Casualty Statistics 2002 (2003); Lloyd’s Register Fairplay, World Casualty Statistics 2003 (2004); Lloyd’s Register Fairplay, World Casualty Statistics 2004 (2005); Lloyd’s Register Fairplay, World Casualty Statistics 2005 (2006); Lloyd’s Register Fairplay, World Casualty Statistics 2006 (2007); Lloyd’s Register Fairplay, World Casualty Statistics 2007 (2008); Lloyd’s Register Fairplay, World Casualty Statistics 2008 (2009); Lloyd’s Register Fairplay, World Casualty Statistics 2009 (2010); and Lloyd’s Register Fairplay, World Casualty Statistics 2010 (2011).

Table 2 Annual ship recycling volume, 2001–2010

	Bangladesh	China	India	Pakistan	Turkey
2001	4,992,402*	2,509,792	4,767,933	1,738,640	164,728
2002	4,893,973	3,138,838	6,751,349*	997,236	385,437
2003	2,889,908	5,582,476*	5,886,259	816,961	280,367
2004	3,356,537	1,538,067	1,619,505	209,055	200,183
2005	2,113,765	151,089	1,123,487	47,530	137,693
2006	2,882,503	254,146	852,990	186,987	148,448
2007	1,837,988	340,738	1,332,492	379,601	117,817
2008	4,176,026	927,762	2,458,113	273,937	141,351
2009	6,608,531	7,636,097	7,561,258	2,100,637*	557,251*
2010	3,927,297	4,723,151	6,533,954	2,443,304	658,473

It is remarkable to note one particular finding from this table: With the exception of Pakistan (and Turkey) every major ship recycling state accomplished its respective ‘peak’ in 2009, i.e. as a direct result of the world economic crisis. This finding is even more noteworthy when considering that the second maximum year for each state (as indicated by an asterisk) does not adhere to this uniformity.

Returning to the calculation, the next step then is to determine the overall gross tonnage of the combined merchant shipping fleet of each ratifying state in order to evaluate whether the ‘combined maximum annual ship recycling volume’ satisfies the 3 %-requirement stipulated. To clarify and understand the requirement exactly, the focus must now be broadened by again taking the flags of registry into account. As the second element of the entry-into-force provision requires at least 40 % of the gross tonnage of the world’s merchant shipping fleet be included, and because the third requirement also refers to it, this means that at least 3 % of the 40 % threshold has to be represented by the group of states providing the ship recycling services. As regards figures, this means that another 3 % of this 40 % share of the world’s merchant shipping fleet—equalling to 957,982,304 GT in 2010—have to be represented in terms of recycling capacity. More precisely and with specific regard to the published numbers in 2011, a combined annual ship recycling capacity of at least 11,495,788 GT is needed to satisfy the third requirement.

Regarding the numbers published 1 year ago, this threshold could only be passed if at least two of the three major recycling states ratified the Hong Kong Convention.⁴⁴ This, however, was and still is rather unrealistic⁴⁵ which potentially renders the third requirement an additional key obstacle to the Hong Kong Convention

⁴⁴ Milieu/COWI, ‘Note on pros and cons of early transposition of the Hong Kong Convention’ (2009), at 20.

⁴⁵ A more general indication of the attitude of the Indian delegation at the Conference towards the regulation of ship recycling might be deducted and interpreted *inter alia* from the fact that they – having joined the Conference late – merely did not participate at all during the deliberations in the Committee of the Whole; Indian, Bangladesh and Pakistan ship recycling companies have allegedly decided to present a unified front against the Hong Kong Convention; see ‘Recycling at a crossroads’, Fairplay, 4 March 2010, at 3; Garfield, ‘Pakistan scrap chief hints at rocky path to

becoming legally binding. Rumours regarding China's ship recycling volume having allegedly gone up by up to 1000 % in 2009 compared to 2008,⁴⁶ thus setting the peak as high as 9,277,620 GT for the next 10 years to come, have not proved to be true although an 820 %-increase may be considered fairly good performance.⁴⁷ Still, while the world economy has not tremendously facilitated the fulfilment of the third element of the entry-into-force provision in 2008–2009, it has possibly eased this requirement, in that the participation of two of the three major ship recycling states will be necessary, but probably also sufficient. Although hoped for by some stakeholders, combined efforts by China and Turkey will still not satisfy the capacity criterion.

C. Construction and Interpretation

I. History of the Provision

Until the 57th session of MEPC (MEPC 57), debates on entry-into-force conditions of the (then: draft) Hong Kong Convention were set aside as the stakeholders engaged wanted to primarily concentrate on substantial issues.

During MEPC 57, Japan submitted its first draft of the entry-into-force requirements to initiate a discussion on this matter.⁴⁸ In its submission, Japan sought an “optimal balance between the volume of merchant fleets and the ship-recycling capacity of the Parties”⁴⁹ to avoid a situation where ships are stuck afloat due to lacking ship recycling facilities, or where ship recycling facilities might face disastrous competition due to the lack of party-ships ready for recycling. This is why Japan suggested adding a third criterion requiring a certain coverage of available ship recycling capacity to the traditional factors of other IMO conventions, i.e. the number of states and the combined merchant fleets' gross tonnage. Regarding the traditional requirements, the Japanese delegation considered it appropriate to suggest a required ratio of 25 states and 25 % of the world's

implementing IMO recycling law', Tradewinds, 19 February 2010, at 8; Routray, 'Indian scrappers lobby Delhi hard', Tradewinds, 28 August, at 11.

⁴⁶ See, e.g., McCarthy, 'Cleaner and greener China climbs scrap ranks', Lloyd's List, 10 August 2009, at 11; Ching-hoo, 'Chinese demolition soars on fleet cuts', Lloyd's List, 17 August 2009, at 5; Connor, 'China targets ageing vessels', Tradewinds, 28 August 2009, at 6.

⁴⁷ This might however change due to the introduction of stricter guidelines in China; see Ching-hoo, 'China unveils tougher legal guidelines for shipbreakers', Lloyd's List, 3 March 2010, at 10; see also McCarthy, 'Scrapping momentum eases further', Lloyd's List, 23 March 2010, at 12; in absolute figures, the year 2011 allegedly even exceeds the boom witnessed in 2009; see Fairplay, 23 October 2011, at 6.

⁴⁸ Submission by Japan to MEPC 57, 'Draft conditions on entry into force' (8 February 2008), IMO-doc. MEPC 57/3/13.

⁴⁹ Ibidem, para. 3.

merchant fleet tonnage, just as previously agreed on in the 2001 AFS Convention.⁵⁰ Due to the limited time available during MEPC 57, the Working Group on Ship Recycling was not able to come to a conclusion in this regard.⁵¹

At MEPC 57, it was also decided to establish a Correspondence Group on Ship Recycling⁵² whose terms of reference were subsequently prepared by the Working Group on Ship Recycling.⁵³ According to these, its main task was to “prepare a draft resolution for the diplomatic conference to address the circumstances in which sufficient recycling capacity may not be available both before and following entry into force of the Convention”⁵⁴; furthermore, “[t]he draft resolution should encourage States to ratify the Convention at the earliest opportunity, and should address disincentives for flag and recycling States to ratify the Convention”.⁵⁵ The Correspondence Group on Ship Recycling, however, concluded that it was not feasible to draft a conference resolution on this matter, as requested by MEPC 57, without conflicting with the draft convention as such.⁵⁶ Therefore, it pointed out that the proposal submitted by Japan,⁵⁷ i.e. the inclusion of a third criterion addressing the ship recycling capacity issue, could provide a solution in this regard as well.⁵⁸ In doing so, the Correspondence Group on Ship Recycling suggested combining entry-into-force related issues such as fostering universality and ensuring early entry-into-force with the ship recycling capacity problem.⁵⁹ Ultimately, the exact balance in terms of figures was left open for discussion at the Diplomatic Conference in Hong Kong in May 2009.⁶⁰

⁵⁰ 2001 International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS Convention) (adopted 5 October 2001, entered into force 17 September 2008).

⁵¹ Report of the Working Group on Ship Recycling (3 April 2008), IMO-doc. MEPC 57/WP.6, para. 27.

⁵² *Ibidem*, para. 19.

⁵³ *Ibidem*, Annex 2.

⁵⁴ *Ibidem*, para. 1 of Annex 2.

⁵⁵ *Ibidem*, para. 2 of Annex 2.

⁵⁶ Report of the intersessional correspondence group on ship recycling (3 July 2008), IMO-doc. MEPC 58/3/3, para. 27.1 and para. 3 of its Annex 1; see the report of the MEPC on its 58th session (16 October 2008), IMO-doc. MEPC 58/23, para. 3.23.

⁵⁷ Submission by Japan to MEPC 57, ‘Draft conditions on entry into force’ (8 February 2008), IMO-doc. MEPC 57/3/13.

⁵⁸ Report of the intersessional correspondence group on ship recycling (3 July 2008), IMO-doc. MEPC 58/3/3, para. 27.2; see also the comment of France, *ibid.*, para. 7.2 of Annex 6: “The entry-into-force provisions and conditions offer the only possible mechanism for addressing the ship recycling [capacity] and related concerns. Capacity and any possible deficiencies in capacity can only be resolved in a sustainable manner by market forces and the balance of supply and demand, in the same way that it happens in shipbuilding, ship repair and the provision of adequate transport capacity”.

⁵⁹ See the submission by Japan to the Diplomatic Conference, ‘Proposal on the conditions on entry into force’, IMO-doc. SR/CONF/41, para. 4.

⁶⁰ Report of the MEPC on its 58th session (16 October 2008), IMO-doc. MEPC 58/23, para. 3.40; report of the Joint Working Group of the International Labour Organization, the International

At the Diplomatic Conference, Japan reiterated the proposal from MEPC 57⁶¹ with an updated and illustrated set of statistics.⁶² This document explained the rationale behind the proposed method of calculating the ship recycling capacity required for the entry-into-force of the Hong Kong Convention. In its submission, Denmark set out concerns vis-à-vis the inclusion of a ship recycling capacity criterion in the entry-into-force provision.⁶³ In order to proceed in this regard, an informal working group gathered on the fourth day of the five-day conference as the entry-into-force issue was one of the last issues still to be settled.

Whereas a few disputes arose relating to the method of calculating as proposed by the head of the Japanese delegation, the majority of stakeholders involved seemed to be generally satisfied, albeit a little confused with the suggested approach. Nevertheless, the traditional elements of the entry-into-force provision had not yet been agreed on because a 'package deal' was ultimately envisaged. So, with the ship recycling capacity criterion more or less set at 3 % of the respective gross tonnage,⁶⁴ the debate was opened with respect to the other two criteria.⁶⁵

The request for the first criterion requiring 50 % of the world's tonnage left the delegations from the United Kingdom and Germany 'extremely worried',⁶⁶ not only with regard to the likelihood of the convention eventually entering into force, but also regarding the political signal it sent. As it generally agreed with the submitted comments, Greece proposed 40 % of the world's tonnage and even suggested a compromise as regards the numbers of states required. Pointing out commercial disadvantages that would be faced by flag states, the Bahamas disagreed with these suggestions, and Malta made an attempt to have the 3 % threshold revised, suggesting increasing it to 4 %. Others repeatedly put forth the examples of other IMO conventions such as the 2004 Ballast Water Convention with its 35 % tonnage- and 30 states-criteria. Panama labelled the on-going discussion 'a strange process' because the flag states had allegedly been the only ones

Maritime Organization and the Basel Convention on Ship Scrapping on its third session (31 October 2008), UN-doc. UNEP/CHW/OEWG/7/Inf/17, para. 39.

⁶¹ Submission by Japan to MEPC 57, 'Draft conditions on entry into force' (8 February 2008), IMO-doc. MEPC 57/3/13.

⁶² Submission by Japan to the Diplomatic Conference, 'Proposal on the conditions on entry into force', IMO-doc. SR/CONF/41.

⁶³ Submission by Denmark to the Diplomatic Conference, 'Entry-into-force provision', IMO-doc. SR/CONF/30.

⁶⁴ Article 17.1.3 HKC: "[...] the combined maximum annual ship recycling volume of the States mentioned in paragraph 1.1 during the preceding 10 years constitutes not less than 3 per cent of the gross tonnage of the combined merchant shipping of the same States".

⁶⁵ Another key issue of the debate related to the period of time between the fulfilment of the stated requirements and the entry-into-force of the convention; this issue however turned out to be ultimately not too relevant and is therefore not discussed further here.

⁶⁶ This intense discussion, attended by the author, took place in the afternoon of the fourth day of the Diplomatic Conference which, as such, put pressure on the delegates attending because these criteria were considered the final significant obstacle prior to adopting the convention the following morning.

‘compromising’ and claimed to be left ‘very confused’ by the attempts of some European Union states to facilitate the entry-into-force criteria. Greece subsequently put forward the formula as stipulated by MARPOL 73/78, i.e. 50 % tonnage and 15 states, which was summarily dismissed by Norway.

These final stages of intense deliberations were mostly tantamount to an example of the statement that “[e]ntry into force is [...] a mechanism related to reciprocity and implementation”.⁶⁷ Eventually, intensified debates, explicit references to ‘reciprocity’ as well as the overall ‘spirit of compromise’ of IMO lead to the final formula comprising 40 % tonnage, 3 % recycling capacity and 15 states. This formula was ultimately agreed upon by the informal working group as a whole, and accepted by the ‘Committee of the Whole’ the following day.⁶⁸

II. Entry-into-Force Provisions of Other IMO Conventions

In the past, IMO conventions concerned with marine pollution have almost exclusively relied on a single criterion⁶⁹ or the combination of no more than two criteria⁷⁰ to stipulate entry-into-force conditions.⁷¹ In doing so, those and similar conventions were “designed to entrench the interests of these [traditional maritime] states and to condition entry into force upon their acceptance.”⁷² To ask for a certain percentage of the world’s merchant fleet to be represented accordingly was an invitation to those states which used to dominate maritime transport. Nowadays, in view of the ever-growing importance of ‘open registry’-states and the simultaneous decline of the more traditional maritime states in this respect,⁷³ the behaviour

⁶⁷ Johnson, *Unfinished Business: The Negotiation of the CTBT and the End of Nuclear Testing* (2009), at 110.

⁶⁸ Wallis, ‘Green Light for IMO recycling rules’, *Lloyd’s List*, 18 May 2009, at 1.

⁶⁹ The entry-into-force provisions of the following IMO conventions only required a specific number of states to express their consent to be legally bound by the respective agreement: the 1969 Intervention Convention (15 states) and its 1973 Protocol (15 states), the 1972 London Dumping Convention (15 states) and its 1996 Protocol (26 states, with at least 15 of them being party to the mother convention), as well as the 1990 OPRC Convention (15 states) and its 2000 Protocol (15 states).

⁷⁰ The following IMO conventions required a combination of two criteria for the satisfaction of its respective entry-into-force provisions: the 1973/1978 MARPOL Convention (15 states, 50 % of the world’s merchant fleet) and its 1997 Protocol (15 states, 50 % of the world’s merchant fleet), the 2001 AFS Convention (25 states, 25 % of the world’s merchant fleet), and the 2004 Ballast Water Convention (30 states, 35 % of the world’s merchant fleet).

⁷¹ For a short overview on entry-into-force conditions of multilateral treaties deposited with the Secretary-General of the United Nations, see Roucounas, ‘Uncertainties Regarding the Entry Into Force of Some Multilateral Treaties’, in Wellens (ed.), *Essays in Honour of Eric Suy* (1998), 179, at 183–185.

⁷² Tan, *Vessel-Source Marine Pollution* (2005), at 351.

⁷³ *Ibidem*, at 63; Hoffmann/Kumar, ‘Globalisation – the Maritime Nexus’, in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 35, at 52–53, 55–56.

of the former group has become more and more important when it comes to having a novel international convention enter into force.⁷⁴

As regards conventions with a particular focus on environmental issues, this finding is ultimately rather negative, due to the fact that the major flag states are currently made up of developing countries⁷⁵ which have—as a group, in principle—not yet established a reputation for holding an especially environmentally conscious attitude.⁷⁶

Over the last decades, along with the described shift of influence has come another contemporary tendency to require more than just a fixed number of states to express their consent to be bound by a treaty. This is due to a rather pragmatic change of mind in the field of international environmental regulation. BODANSKY explains that “because some states contribute more to environmental problems than others, entry-into force requirements cannot be stated simply as a number of states, but rather as a variable that reflects the magnitude of different states’ contribution to a problem. [...] Such entry-into-force requirements help ensure reciprocity by requiring participation by states that account for a significant share of the problem.”⁷⁷ With particular regard to the Hong Kong Convention, this notion explains the attention given to active participation by the key ship recycling states.⁷⁸

However, with the biggest flag states lacking interest and/or incentives to adopt and implement environmentally progressive instruments on the one hand, and with the parallel urge to have particularly relevant groups of states participating on the other hand, the overall task of drafting reasonable entry-into-force conditions has seemed to become like painting the Forth Bridge. Accordingly, over recent years, ecologically more conscious states have been lobbying in favour of reduced entry-into-force conditions in environmental conventions.⁷⁹ In particular, a key objective

⁷⁴ For a general perspective in this context, see Young, ‘Regime Dynamics: The Rise and Fall of International Regimes’, 36 *Int’l Org.* 277 (1982), at 293: “[...] it should come as no surprise that shifts in the distribution of power will be reflected, sometimes gradually rather than abruptly, in changes in social institutions like international regimes”.

⁷⁵ Tan, *Vessel-Source Marine Pollution* (2005), at 102–103, 351; however, this development has also just enabled developed states to put more efforts into environmental causes.

⁷⁶ *Ibidem*, at 351–352; this finding turns out to be even graver if one considers flag states to be “[...] to a certain extent, agents for common interests of the international community”: König, ‘Flag of Ships’, in Wolfrum (ed.), *M.P.E.P.I.L.* (April 2009, online), para. 59.

⁷⁷ Bodansky, *The Art and Craft of International Environmental Law* (2009), at 176.

⁷⁸ Barrett, ‘An Economic Theory of International Environmental Law’, in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 231, at 249.

⁷⁹ See Tan, *Vessel-Source Marine Pollution* (2005), at 352; with particular regard to the entry-into-force related debates of MARPOL 73/78 Annex 6, see Angelo, ‘The International Maritime Organization and Protection of the Marine Environment’, in Nordquist/Moore (eds.), *Current Maritime Issues and the International Maritime Organization* (1999), at 109: “[...] the open registries and the developing countries wanted to stick with fifteen countries representing 50 percent of the world’s gross tonnage, and [...] many of the developed countries wanted to get away from that criteria for obvious reasons”.

has been to drastically reduce the minimum tonnage requirement⁸⁰ that usually accompanied the state numbers requirement,⁸¹ in order to circumvent the relative importance of the major flag states.⁸² In this respect, the drafting of both the 1990 OPRC Convention,⁸³ which requires only 15 states to ratify, and the 2001 Bunkers Convention,⁸⁴ entering into force upon the ratification of 18 states with 5 having fleets of at least 1,000,000 GT, were regarded as a huge success and a “major change”.⁸⁵ However, the issue regulated by the 1990 OPRC Convention was not considered too controversial, thus undermining the force of this supposed tendency.⁸⁶ Since this date, further weakening the call for such a development, and quite contrary to aspirations, the adoption of the 2004 Ballast Water Convention and, eventually, the 2009 Hong Kong Convention appear to demonstrate an even more cautious approach to politically crucial issues: The former convention required 30 states comprising at least 35 % of the world’s merchant fleet, while the latter, as referred to above, even added an additional, third criterion to the list of criteria to be fulfilled. This, again, simply expresses the desire to involve those states addressed by the additional criterion, i.e. the key ship recycling states in the case of the Hong Kong Convention. Although perfectly reasonable, this hope ultimately “is liable to make entry into force hostage to the decision of just one or two states [...]”.⁸⁷

Altogether, there is no clear tendency among recent IMO conventions as regards the composition of their entry-into-force provisions. Not too surprisingly, it may be attested that entry-into-force requirements may be less stringent in cases which are

⁸⁰ To achieve this objective might still turn out to be a double-edged sword as the entry-into-force of an international agreement should also be a statement of confidence that “a critical mass of other [states]” actually participates in the novel regime; cf. Johnson, *Unfinished Business: The Negotiation of the CTBT and the End of Nuclear Testing* (2009), at 110.

⁸¹ In this respect it is interesting to point out that the entry-into-force conditions of the MARPOL 73/78 are no longer considered to be appropriate as related practice over the last decades has proven that satisfaction of these conditions usually takes longer than six years a common IMO Convention requires; see, e.g., European Commission, ‘Proposal for a Regulation of the European Parliament and of the Council on the Prohibition of Organotin Compounds on Ships’, EU-doc. COM(2002) 396, note 7.

⁸² Tan, *Vessel-Source Marine Pollution* (2005), at 352–353; in this regard, Tan seems to be torn between perceiving the development as ‘laudable’ on the one hand, and ‘fundamentally undemocratic’ as well as ‘opportunistic’ on the other.

⁸³ 1990 International Convention on Oil Pollution Preparedness, Response and Co-operation (adopted 30 November 1990, entered into force 13 May 1995).

⁸⁴ 2001 International Convention on Civil Liability for Bunker Oil Pollution Damage (adopted 23 March 2001, entered into force 21 November 2008).

⁸⁵ Tan, *Vessel-Source Marine Pollution* (2005), at 352; more or less the same applies to the 2001 AFS Convention requiring 25 states and 25 % of the world’s merchant tonnage.

⁸⁶ See Roucouas, ‘Uncertainties Regarding the Entry Into Force of Some Multilateral Treaties’, in Wellens (ed.), *Essays in Honour of Eric Suy* (1998), 179, at 183–186.

⁸⁷ Sands, *Principles of International Environmental Law*² (2003), at 133; see also the submission by Denmark to the Diplomatic Conference, ‘Entry-into-force provision’, IMO-doc. SR/CONF/30, para. 5.

politically less controversial⁸⁸; however, if conventions stipulate commitments which may result in adverse economic effects for developing countries, the major flag states tend to collectively fight for their cause.

III. Teleological Considerations

In addition to historical and systematic considerations regarding the entry-into-force provision of the Hong Kong Convention, teleological thoughts provide another means of construction and interpretation. This approach is even more relevant if one takes into account that the “minimum participation level in a treaty cannot be chosen arbitrarily”.⁸⁹

The worst-case scenario after the entry-into-force of the Hong Kong Convention was considered a situation with ships ‘stuck afloat’ due to a lack of ship recycling capacity.⁹⁰ This is the main reason why the entry-into-force provision stipulated in the Hong Kong Convention and based upon the Japanese submissions strove to find the ‘optimum balance’, as discussed above.⁹¹

More precisely, the teleology behind each requirement may be shortly summarised as follows: The condition requiring a specific number of states to ratify the Hong Kong Convention proves its striving for universality and acceptance.⁹²

⁸⁸ Cf. DeSombre, *Flagging Standards* (2006), at 203: “That most open registries are not only in developing countries but arguably in marginal or even failed states supports the contention that if the most powerful states in the international system wanted to end the phenomenon of open ship registration they would have the ability to change the behavior of the major flag-of-convenience states. It can thus be inferred from the at least complicity of the major maritime states in the current structure that, despite protestations to the contrary, they benefit in some way from the FOC system and have no real interest in fundamentally altering it”.

⁸⁹ Barrett, ‘An Economic Theory of International Environmental Law’, in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 231, at 249.

⁹⁰ See the submission by Japan to MEPC 57, ‘Draft conditions on entry into force’ (8 February 2008), IMO-doc. MEPC 57/3/13, para. 3; see also the report of the intersessional correspondence group on ship recycling (3 July 2008), IMO-doc. MEPC 58/3/3, paras. 3 and 16.

⁹¹ See *supra* chapter “Entry-Into-Force Provision”, C.I (p. 54).

⁹² Dahm/Delbrück/Wolfrum, *Völkerrecht I/3*² (2002), § 150, at 588–589; admittedly, to require the support of only 15 out of more than 190 states does not exactly prove its ‘striving for universality’. There have been conventions in the past, typically in the field of humanitarian law, which required as few as two ratifications for their entry-into-force. Their aim was to protect human beings in times of distress which is why the requirement of a great number of participating states was given less priority than the treaty entering into force and becoming legally binding as soon as possible. In case of the Hong Kong Convention, the issue is slightly different: The combination of three requirements as such was seen as a possibly serious impediment to the treaty ever entering into force. Therefore, the requirement of a rather low number of states has evolved as a compromise from intense deliberations at the Diplomatic Conference on Ship Recycling which eventually attempted to put more emphasis on the overall balance between the three criteria than on realiter universal participation of as many states as possible. In this context, see also Roucouas, ‘Uncertainties Regarding the Entry Into Force of Some Multilateral Treaties’, in Wellens (ed.), *Essays in Honour of Eric Suy* (1998), 179, at 186.

The more states actively participate in a new regulatory regime, the higher the absolute level of compliance will be and the bigger its overall influence. As regards the tonnage requirement, the main objective is similar, but different insofar as it links the idea of universality to the notion of relevance in maritime affairs.⁹³ The combination of both requirements aims at providing a solid basis for the subsequent implementation of its provisions.⁹⁴ Ultimately, the capacity criterion discussed above⁹⁵ aims to provide a practical solution to the risk of reduced ship recycling capacity through the regulatory standards that will be established by the Hong Kong Convention. The solution is therefore linked to the availability of a specified volume of ship recycling capacity. Hence, the idea behind the inclusion of the third criterion is to adjourn the entry-into-force of the Hong Kong Convention until a sufficient number of recycling states are participating⁹⁶ to meet the needs of those states parties with regard to their respective merchant shipping fleets.⁹⁷ The necessary capacity volume, as stipulated by Article 17.1 HKC, has come to be determined in a similar way to that used to estimate the new ship-building capacity of individual facilities.⁹⁸

⁹³ See supra chapter “Entry-Into-Force Provision”, C.II (p. 57); see also Tan, *Vessel-Source Marine Pollution* (2005), at 354.

⁹⁴ Dahm/Delbrück/Wolfrum, *Völkerrecht I/3*² (2002), § 150, at 587–588.

⁹⁵ See supra chapter “Entry-Into-Force Provision”, C.I (pp. 54 et seq.).

⁹⁶ See Roucouas, ‘Uncertainties Regarding the Entry Into Force of Some Multilateral Treaties’, in Wellens (ed.), *Essays in Honour of Eric Suy* (1998), 179, at 191; see also Szasz, ‘General Law-Making Process’, in Schachter/Joynner (eds.), *United Nations Legal Order*, vol. II (1995), 35, at 87: “[...] certain environmental or disarmament regimes would not accomplish their purpose or would impose an undue burden on participating against non-participating states, unless substantially all, or at least all ‘significant’ states (in terms of the proposed regime) joined”.

⁹⁷ Barrett, ‘An Economic Theory of International Environmental Law’, in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 231, at 249: “[T]he minimum participation level in a treaty cannot be chosen arbitrarily. It must take account of the incentives facing different countries. It must, in particular, be invulnerable to renegotiation. Put differently, it must be collectively rational from the perspective of the signatories to the agreement”.

⁹⁸ See the submission by Japan to the Diplomatic Conference, ‘Proposal on the conditions on entry into force’, IMO-doc. SR/CONF/41, paras. 7–8: “One possible way to estimate the present recycling capacity is to look back at the recycling volume for certain period of years, pick up the maximum recycling volume actually achieved in one single year, and regard it as the present recycling capacity. This is based on the analogy to the widely-used methodology of estimating the new-building capacity. The underlying principle is that once [a] certain volume of new-building was achieved by a shipyard, even though the operation level may have gone down since then due to unfavorable market conditions, and the latest new-building volume is less than such figure, a shipyard will be able to resume the maximum operation level and achieve the same volume of new-building, once the market conditions become favorable, by reallocating resources such as labour force. We consider that the same principle could apply to the ship-recycling activity. [...] ‘Physical capacity’ means facilities and equipment for ship recycling that cannot be removed easily. Therefore, even though the latest achieved volume of recycling is low due to present weak market conditions, the maximum volume achieved in a specific time span in the past can be regarded as the ‘present capacity’ because the facilities can resume such high level of activity once the market conditions become favorable”.

Viewed individually, the objective of every single element of the entry-into-force provision seems to be reasonable and worth supporting. More precisely, the group of flag states quite reasonably supported the inclusion of the third criterion whilst the recycling states were in favour of the dual high tonnage volume and the high states' number requirement,⁹⁹ with both groups acting for obvious reasons. Eventually, this situation led to a balanced compromise. However, under evaluation, some minor flaws and corresponding issues emerge which may realign this optimistic perspective.

IV. Critical Evaluation

The first critical issue is the inclusion of a third requirement into the entry-into-force provision as such. Not only does the inclusion of another criterion to an existing set of criteria send out a signal of overall scepticism, it also increases the complexity of the Hong Kong Convention's entering into force. Moreover, the fact that the third criterion specifically addresses only a few states leads to an increased risk of these states 'blocking' the entry-into-force.¹⁰⁰ With particular regard to the inclusion of rather special entry-into-force criteria, ROUCOUNAS has stated quite optimistically:

Sometimes, a significant number of ratifications must clearly include those States which are [...] 'significant' in terms of the proposed regime: in such a case the marriage between the quantitative and the qualitative requirements will not appear to be elitistic.¹⁰¹

With 'quantitative' referring to the states' numbers and their combined gross tonnage, and 'qualitative' referring to the required volume of ship recycling capacity under the future regime, it is more than questionable in the case of the Hong Kong Convention whether the "marriage between the quantitative and the qualitative requirements"¹⁰² will prevail in the end.

The second problematic issue relates to the way this recycling capacity requirement criterion is calculated: The mere fact that a certain volume of ship recycling

⁹⁹ See the submission by Bangladesh to the Diplomatic Conference, 'Proposed amendments to the draft International Convention for the Safe and Environmentally Sound Recycling of Ships', Annex to IMO-doc. SR/CONF/37.

¹⁰⁰ Submission by Denmark to the Diplomatic Conference, 'Entry-into-force provision', IMO-doc. SR/CONF/30, para. 5: "Furthermore, it should be kept in mind that the more criteria that have to be fulfilled in order to meet the entry-into-force provision the more difficult it might be for the Convention to enter into force. Too many criteria could lead to a situation whereby some countries are placed in a position to 'block' the entry into force of the Convention, and that might occur even if this is not their intention, as sometimes ratification is delayed due to national considerations"; see *supra* chapter "Entry-Into-Force Provision", note 87 and accompanying text (p. 59).

¹⁰¹ Roucounas, 'Uncertainties Regarding the Entry Into Force of Some Multilateral Treaties', in Wellens (ed.), *Essays in Honour of Eric Suy* (1998), 179, at 191.

¹⁰² *Ibidem*, at 191.

capacity existed at some point in the past does not *eo ipso* suffice to serve the needs of the world's merchant shipping fleet in terms of 'green' ship recycling capacity¹⁰³ as required by the Hong Kong Convention.¹⁰⁴ In one of its contributions to the Diplomatic Conference, Denmark has therefore explicitly criticised this aspect of the entry-into-force criteria:

3. The statistics on recycling capacity presented so far during the discussions in the Marine Environment Protection Committee all relate to the historic volumes of ships recycled. There are no international statistics on the potential capacity for recycling. [...]
4. Even more importantly, there are no accurate statistics on the capacity – or even volume – that would be in compliance with the requirements of the new Convention. It would only make sense to use a capacity criterion, if this could be based on the capacity that is compliant with the Convention's requirements. Otherwise a situation could arise where a country with a large number of Ship Recycling Facilities ratifies the Convention, but if not all Ship Recycling Facilities in that Party's territory are yet in compliance with the Convention, then the relevant capacity would still not be available.¹⁰⁵

Previously, other members of the working group on the entry-into-force provision had also "[...] expressed serious concerns over the use of historical data to calculate recycling capacity."¹⁰⁶ As mentioned above, the primary objective of including the capacity criterion was to provide a pragmatic response to economic anxieties of shipowners and flag states that sufficient ship recycling capacity might not be available once the Hong Kong Convention enters into force. An attempt to provide such a response was considered along the following lines of thought: If there was an instrument guaranteeing a certain minimum volume of ship recycling capacity available under the regulatory umbrella of the Hong Kong Convention, which was calculated according to respective demand in previous years, then neither flag states nor shipowners would have any reasons to be afraid of lacking ship

¹⁰³ For further information in this respect, see the submission by Greenpeace International and FOEI to the Diplomatic Conference, 'Ensuring sustainable green and safe ship dismantling – concerning the entry into force provisions', IMO-doc. SR/CONF/13; see also Bray, '“Green” recycling dream is distant', Tradewinds, 26 February 2010, at 22; de Groot, 'Going green or staying silent?', Fairplay, 23 April 2009, at 28; McCarthy, 'Breaking industry in tug-of-war over environmental standards', Lloyd's List, 2 July 2010, at 4; for an eventually rather optimistic view, see Puthucherril, From Shipbreaking to Sustainable Ship Recycling (2010), at 38–39; Ang/Garfield, 'Choice stop for “green dismantling”', Tradewinds, 27 November 2009, at 50; Grinter, 'China top candidate for sustainable recycling', Lloyd's List, 12 May 2009, at 7; see also Garfield, 'Maersk bets on its Chinese recycling expertise', Tradewinds, 12 March 2010, at 20; Garfield, 'Well-equipped “green” Chinese yards looking to grow', Tradewinds, 12 March 2010, at 20; Wallis, 'Recycling is key for Chinese yards', Lloyd's List, 16 November 2009, at 12; however, a draft set of stricter guidelines for the ship recycling industry has been introduced by Chinese government bureaus; cf. Ching-hoo, 'China unveils tougher legal guidelines for shipbreakers', Lloyd's List, 3 March 2010, at 10.

¹⁰⁴ See the comment of Turkey in the report of the intersessional correspondence group on ship recycling (3 July 2008), para. 7.3 of Annex 6 to IMO-doc. MEPC 58/3/3; see the report of the MEPC on its 58th session (16 October 2008), IMO-doc. MEPC 58/23, para. 3.25.

¹⁰⁵ Submission by Denmark to the Diplomatic Conference, 'Entry-into-force provision', IMO-doc. SR/CONF/30, paras. 3–4.

¹⁰⁶ Report of the MEPC on its 58th session (16 October 2008), IMO-doc. 58/23, para. 3.25.

recycling capacity and resulting loss in revenue. Still, in order to calculate supply and demand accordingly, the respective figures and quantities would have to be taken against the background of current ship recycling practices in the main ship recycling states. What is basically done against this background is an attempt to appease flag states and shipowners by pointing out that sufficient ship recycling capacity has once been available in the respective markets. In doing so, it is however completely neglected that a large percentage of this capacity is not appropriate (i.e. 'sub-standard') in terms of the Hong Kong Convention, and therefore not open to shipowners bound by its provisions. This is why a lot of stakeholders consider the designated way of calculating ship recycling capacity problematic.¹⁰⁷

The third and final remark is that notwithstanding the problematic issues relating to the combination of three entry-into-force conditions and the way of calculating capacity, in the vast majority of past United Nations' and/or IMO conventions strict entry-into-force requirements might have slightly delayed the conventions' becoming legally valid. Only rarely have they been the prime reason why a particular international treaty did not enter into force. As mentioned above, it is the political will of the drafting states which is somewhat mirrored in these provisions: It is politics that makes a difference. Therefore, if the Hong Kong Convention does not ever enter into force, this is due more to the future lack of political will than to the present shape and strictness of these conditions.

V. Summary

Altogether, the entry-into-force provision of the Hong Kong Convention is to be considered an attempt of institutionally addressing the major stakeholders concerned. While every single element of the provision is reasonable 'as is', it still has to be proven whether this combination of conditions should be supported in similar circumstances in the future. Until this development has been accepted in practice, i.e. through fulfilment of the Hong Kong Convention requirements in due course,¹⁰⁸ the inclusion of a third criterion into the entry-into-force provision is to be considered a considerable additional obstacle to the agreement becoming legally binding.

¹⁰⁷ One would however not suspect that the chosen manner of calculating ship recycling capacity provides some kind of safeguard preventing the Hong Kong Convention from entering into force. Similar to the inclusion of a third requirement as such, it basically is the result of a compromise between the urge to include a capacity criterion on the one side, and the lack of any data determining future ship recycling capacity which is considered appropriate in terms of the Hong Kong Convention.

¹⁰⁸ One may add: without any extraordinary developments that could not be predicted during the course of debates regarding the entry-into-force provision.

D. Economics

Against this background of historical, systematic and teleological considerations with regard to the entry-into-force provision of the Hong Kong Convention, economic implications cannot be omitted. These implications are essential to illustrate the *status quo* of the Hong Kong Convention and to indicate the considerable risk of a 'non-event' rather than successful early entry-into-force. As an international convention ultimately has to be attractive for individual states in order to be eventually ratified by them,¹⁰⁹ a qualified understanding of all the economic aspects related to the entry-into-force provision is more than necessary. This however requires a thorough analysis of the economic incentives generally employed in the Hong Kong Convention, as the economic implications of the entry-into-force provision cannot be depicted separately from those resulting from other obligations of the convention.¹¹⁰ In other words: The economic implications of the entry-into-force provision can only be clearly understood with specific regard to the general economic implications of the Hong Kong Convention as a whole for the states addressed.¹¹¹ And this, in turn, necessitates a more thorough look at the economic environment of ship recycling.

¹⁰⁹ See the submission by Norway to the Intersessional Meeting of the Working Group on Ship Recycling, 'Consideration of the use of Ship Recycling Facilities under the jurisdiction of non-Parties', IMO-doc. MEPC-ISRWG 3/2/9, para. 7; see also European Commission, 'An assessment of the link between the IMO Hong Kong Convention for the safe and environmentally sound recycling of ships, the Basel Convention and the EU waste shipment regulation', EU-doc. COM (2010) 88, para. 3.

¹¹⁰ One has to keep in mind that the entry-into-force of the Hong Kong Convention will not only change ship recycling processes as such, but that it will also have a considerable impact on general maritime economics; see Andersen, 'Technological and Economic Feasibility Study of Ship Scrapping in Europe' (speech delivered at the 2nd Global Ship Recycling Summit, 25 June 2001), at 2.

¹¹¹ If a particular state substantially benefits from the Hong Kong Convention, there is a strong indication that it will not only ratify the international treaty but also comply with its then binding obligations; for the question of subsequent compliance, see, e.g., Henkin, *How Nations Behave*² (1979), at 47: it "[...] is probably the case that almost all nations observe almost all principles of international law and almost all of their obligations almost all of the time."; Henkin realises, on the other hand, that there are incidents of violation of international law. In his opinion though, these do not count because they are small in numbers and one probably is distracted by few instances of violation whereas thousands of thousands of daily incidents of compliance with international law are overlooked and merely realized; see also Raustiala/Slaughter, 'International Law, International Relations and Compliance', in Carlsnaes (ed.), *Handbook of International Relations* (2007), 538, at 540: "This produces selection bias that causes critics to focus on the rare cases of non-compliance rather than the overwhelming cases of compliance [...]."

1. Economic Environment of Ship Recycling

Ship recycling, despite being the final event of a ship's life cycle, is no more important than the other, previous stages. Therefore, these other stages must also be considered when looking at the economic aspects of ship recycling. Four different stages must therefore be distinguished: ship building, freight or transport, sale and purchase, and, eventually, ship recycling.¹¹²

1. Shipping Markets

Each stage corresponds with one particular market. For this reason, four shipping markets must be distinguished: the ship building market where new ships are ordered; the freight market where sea transport is offered and sold; the sale and purchase ('second-hand') market where used ships are sold and bought; and the ship recycling market where old ships are sold for recycling.¹¹³

Like any other industry, the shipping industry in general and each shipping market in particular face periods of growth as well as times of recession.¹¹⁴ Usually, long-term or secular cycles are distinguished from rather short-term ('business') cycles and seasonal variations.¹¹⁵ The shipping industry has experienced more than twenty cycles over the last 270 years.¹¹⁶ Whereas in former times shipping market cycles were primarily explained by references to simple 'supply vs. demand'-models,¹¹⁷ over time additional explanations pointed out further decisive factors such as general world business phases as well as major catastrophes and wars which were considered as possibly triggering market cycles.¹¹⁸

¹¹² Stopford, *Maritime Economics*³ (2009), at 179.

¹¹³ *Ibidem*, at 175–180.

¹¹⁴ Gorton/Ihre/Sandevärn, *Shipbroking and Chartering Practice*⁴ (1995), at 14–17.

¹¹⁵ Stopford, *Maritime Economics*³ (2009), at 94–101.

¹¹⁶ *Ibidem*, at 104–105.

¹¹⁷ See *ibidem*, at 99, referring to Kirkaldy, *British Shipping* (1914), at 175–176: "With the great development of ocean transport [...] competition became very much accentuated. As the markets became increasingly normal, and trade progressively regular, there was from time to time more tonnage available at a given port than there was cargo ready for shipment. With unlimited competition this led to the cutting of rates, and at times shipping had to be run at a loss. The result was that shipping be-came an industry enjoying very fluctuating prosperity. Several lean years would be followed by a series of prosperous years".

¹¹⁸ Stopford, *Maritime Economics*³ (2009), at 99–100, referring to Fayle, *A Short History of the World's Shipping Industry* (1933), at 276–277: "The extreme elasticity [...], the ease with which new-comers can establish themselves, and the very wide fluctuations of demand, make the ownership of tramp steamers one of the most speculative of all forms of legitimate business. A boom in trade or a demand for shipping for military transport [...] would quickly produce a disproportion between supply and demand; sending freight soaring up-wards. In the hope of sharing the profits of the boom, owners hastened to increase their fleet and new owners come into the business. The world's tonnage was rapidly increased to a figure beyond the normal requirements, and the short boom was usually followed by a prolonged slump".

Altogether, these factors of varying impact and intensity create an economic environment which has—for obvious reasons¹¹⁹—ever since attracted speculative investors.¹²⁰ Furthermore, disastrous competition even furthered price volatility, thus worsening the state of the shipping industry.¹²¹

Accordingly, the economic environment of the shipping markets is not only uncertain and unpredictable to a large extent; it is also under pressure from a variety of factors difficult to quantify exactly. Every single decision in each of the shipping markets has to be concluded against this background. In order to complement this short overview of the shipping markets with a few structural insights, the two most relevant shipping markets in the context of this study will be presented in the following parts.

a) Ship Building

One of them is the ship building market. It is considered to be the economic business counterpart to ship recycling.¹²² The purchase of ships on the second-hand market may seem an equivalent entrepreneurial action, however in principle, it fulfils different purposes primarily due to its quick realisation.¹²³ Ship building contracts and ship recycling negotiations typically follow entrepreneurial decisions implementing mid-term or long-term strategies. Entrepreneurial action on the second-hand market, on the other hand, primarily constitutes a reaction to short-term or seasonal fluctuations of the market cycle or an immediate response to unexpected deviations of the world economy.¹²⁴

Apart from business motives, the main difference between the second-hand market and the ship building market is that the latter focuses on ships which have not yet been built.¹²⁵ This minor difference leads to a few significant consequences

¹¹⁹ This assessment basically follows from two considerations: The values are enormous simply due to the percentage of world transport which is conducted via sea; and predicting peaks and troughs of shipping market cycles is tremendously difficult due to the complexity and variety of factors influencing market cycles, as described above.

¹²⁰ See, e.g., Stopford, *Maritime Economics*³ (2009), at 628–630.

¹²¹ Kirkaldy, *British Shipping* (1914), at 177–178.

¹²² However, this does not automatically result in synchronised activity levels in these two markets; see Stranden, ‘Economics of the Markets for Ships’, in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 217, at 221.

¹²³ Stranden, ‘Economics of the Markets for Ships’, in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 217, at 220.

¹²⁴ See Stopford, *Maritime Economics*³ (2009), at 212: “[...] in the early 1990s the price ratio [between a five-year old ship and a newly build one] fell [from 80 %] to 60 % because the market was depressed and investors did not want a prompt ship. They preferred a newbuilding that would not be delivered for a couple of years, by which time the market should have improved. However, by 2006 the second-hand price was higher than the newbuilding price because freight rates were very high and there was intense competition for prompt ships that could be chartered at a high rate”.

¹²⁵ *Ibidem*, at 207.

governing the negotiations of a ship building contract: Firstly, the exact type and specification of ship has to be chosen, which will, in turn, have consequences for the negotiation of the price.¹²⁶ Secondly, negotiations for new ships are by far more complex than on the second-hand market as there are many more items to govern and to adjust. The most important consequence, however, relates to the fact that the ship will not be delivered until 2 or 3 years after the contract has been concluded.¹²⁷

The main reason why the ship building market is relevant with regard to an analysis of the ship recycling market is due to the fact that both markets have a few particular and similar characteristics: Due to the market structure both are in a global competition,¹²⁸ which means that interested parties are usually indifferent with regard to the precise place of performance¹²⁹; nonetheless, both markets have experienced a major shift to the East during the last decades, with the ship recycling market going to countries such as China, India and Bangladesh, and the ship building market being particularly attracted by countries such as Japan, China and Korea¹³⁰; both markets, again, have been experiencing a boom in orders due to the phasing-out of single-hull tankers in response to regulatory action¹³¹ following the “Prestige”-disaster¹³²; finally, a minor number of ship building yards are specialised in either specific parts or specific types of ships, whereas the vast majority of both ship recycling and ship building companies is quite flexible¹³³; needless to say, both ship building yards and ship recycling facilities typically require some level of technical installations or equipment.

¹²⁶ *Ibidem*, at 207–208.

¹²⁷ For these three factors, see *ibidem*, at 207, 212.

¹²⁸ In this respect, competition is truly global in both markets only with regard to larger ships.

¹²⁹ Obviously, in the ship building market quality standards play an important role and may be one of the decisive factors regarding the specific shipyard to be chosen.

¹³⁰ Mandaraka-Sheppard, *Modern Maritime Law*² (2007), at 419.

¹³¹ European Commission, ‘Amended proposal of 12 December 2000 for a Regulation of the European Parliament and of the Council on the accelerated phasing-in of double hull or equivalent design requirements for single hull oil tankers’, EU-doc. COM(2000) 848; Regulation (EC) No 417/2002 of the European Parliament and of the Council of 18 February 2002 on the accelerated phasing-in of double hull or equivalent design requirements for single hull oil tankers and repealing Council Regulation (EC) No 2978/94; Commission Regulation (EC) No 2172/2004 of 17 December 2004 amending Regulation (EC) No 417/2002 of the European Parliament and of the Council on the accelerated phasing-in of double-hull or equivalent design requirements for single-hull oil tankers; see also de la Fayette, ‘The Marine Environment Protection Committee: The Conjunction of the Law of the Sea and International Environmental Law’, 16 *Int’l J. Marine & Coastal L.* 155 (2001), at 196–198.

¹³² The oil tanker *Prestige* sank on 19 November 2002 off the Galician coast causing an oil spill which is considered the largest environmental disaster in Spain’s history; see, e.g., the European Parliament resolution on the sinking of the oil tanker *Prestige*, EU-doc. B5-0612/2002.

¹³³ Stopford, *Maritime Economics*³ (2009), at 208.

One feature however, which is substantially different, is that usually the whole process of selecting the ship building yard is quite complex and time-consuming¹³⁴ whilst the selection of a ship recycling yard (or an intermediary buyer) in most cases is significantly more expedient.¹³⁵

In the end, the price to be negotiated is the most important issue in both situations.¹³⁶ As regards the shipbuilding market, price fluctuations¹³⁷ may result in disastrous competition in both rising and falling markets¹³⁸; the ship recycling market, as will be shown in the following paragraphs, faces a similar fate.

b) Ship Recycling

At the end of a ship's life cycle, it usually is sent for demolition. The entrepreneurial decision whether to have a ship recycled or to offer it on the second-hand market is made according to basic accountancy considerations,¹³⁹ based on the following overall strategy¹⁴⁰: Until the value of a particular ship either with regard to current

¹³⁴ The complexity stems from the number of possible ship building yards on the one side, and the number of issues to deal with on the other side; moreover, the approach differs depending on the state of the market as well as the particular circumstances of the deal; a buyer's market's typical feature is to perform a so-called tender procedure consisting of an invitation to a selected group of ship building yards to tender and a subsequent choice of the most competitive ones in order to undertake a final selection; the whole process may require as much as a year to be finally completed; such a procedure is not possible if the state of the market rather resembles a seller's market as this situation has buyers compete for the available berths and ship building yards dictate their terms and conditions; for a description of this negotiation process, see Stopford, *Maritime Economics*³ (2009), at 208; see also Mandaraka-Sheppard, *Modern Maritime Law*² (2007), at 425.

¹³⁵ Whereas ship building negotiations focus on the size of the ship, its precise specifications, further terms and conditions of the contract, the time of delivery and the particular patterns of ship building stage payments, the only two major issues to deal with in ship recycling negotiations are price and time of delivery.

¹³⁶ A common procedure in negotiating a ship building contract is to preliminarily agree upon a fixed price, a stable interest rate and a certain number of so-called 'stage payments' which are due at assigned dates; see Stopford, *Maritime Economics*³ (2009), at 208; these patterns differ considerably depending on the current market situation.

¹³⁷ As regards a particular type of ship, the price of a Panamax bulk carrier was as low as USD 6 million in 1977, rose to USD 22 million in 1980, fell again to USD 7 million two years later until it evened out at USD 22 million in 1989; in 1999, it fell once more to around USD 14 million; from then, the price steadily increased until it reached USD 92 million in 2007; see Stopford, *Maritime Economics*³ (2009), at 202.

¹³⁸ *Ibidem*, at 208 and 630: "[...] price fluctuations, and the large sums involved, make the shipbuilding market a tricky place to do business, and shipyards have to be very clever in their price strategy. In rising markets shipyards run the risk of filling their order books with ships contracted at low prices, only to find that by the time they deliver these ships, prices have doubled and costs have also increased".

¹³⁹ Strandenes, 'Economics of the Markets for Ships', in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 217, at 227.

¹⁴⁰ Hess et al., *disposal options for ships* (2001), at 41–42.

freight rates and/or with regard to its market value on the second-hand market does actually fall below its recycling value, the ship typically is kept in operation.¹⁴¹

If the shipowner however has come to the decision to have a particular ship recycled, a standard procedure is initiated which typically follows one of two distinctive strategies: In the vast majority of cases, the ship is sold to a so-called cash-buyer,¹⁴² or, in fewer cases, to a recycling company engaging an internal or external shipbroker.¹⁴³ In both cases, the procedure begins quite similarly to a tender procedure on the ship building market, i.e. a more or less detailed offer is drafted, processed and circulated to potentially interested parties.¹⁴⁴

Where a cash buyer is involved, the ship is purchased from the owner outright. Being an intermediary buyer, the cash buyer usually changes the crew, re-flags the ship, takes the title to the ship and subsequently delivers the ship at his risk to the recycling yard offering the best price.¹⁴⁵ Having paid a lump sum to the shipowner in cash in advance, a cash buyer typically generates profit margins of approximately 3 % per operation. An alternative procedure for the cash buyer is to answer a specific inquiry from a shipowner by issuing and providing guidance on the best solution in terms of cost-effectiveness in return for an agreed commission. In this case, the risk of the cash buyer is reduced as delivery of the ship to the recycling facility is conducted at the shipowner's risk and liability.¹⁴⁶

If the procedure is carried out with the exclusive engagement of a shipbroker, there are a few significant differences: First of all, the shipbroker usually belongs to the shipowner's company. This means the best price-performance ratio will be sought without the help of external advice in order to sustain the price level offered by ship recycling companies. This approach may not always deliver the best offers

¹⁴¹ Stopford, *Maritime Economics*³ (2009), at 205; see also Strandenæs, 'Economics of the Markets for Ships', in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 217, at 230: "The basis for the market prices in efficient second-hand markets [...] is the expected future return from purchasing and operating the vessel. The challenge to ship owners and insurance or finance institutions thus is to assess the *expectations on future income* for the vessels. For older vessels the assessment must also include an evaluation of its *remaining economic life*".

¹⁴² See the submission by the Republic of the Marshall Islands to the Diplomatic Conference, 'The role of the cash buyer', IMO-doc. SR/CONF/15.

¹⁴³ Reportedly more than 90 % of the deals are made via cash-buyers; reasons are *inter alia* that these kinds of transactions are handled on a cash basis and do not involve letters of credit, that the number of potential buyers is supposedly higher, and that respective cash-buyers possess particular industry knowledge; see BIMCO, 'Hong Kong Convention' (21 September 2009), at 15; see also Misra/Mukherjee, *Ship Recycling* (2009), at 36; Parkinson, 'Regulatory Matters, Industry Guidelines and Voluntary Code of Practice', *Recycling of Ships & Other Marine Structures* (2005), 1, at 5.

¹⁴⁴ Such an offer usually contains details on the ship such as its type, lightweight and location; see Stopford, *Maritime Economics*³ (2009), at 212; Finn, 'The Role of the Shipbroker', *Ship Recycling Conference 2005*.

¹⁴⁵ Submission by the Republic of the Marshall Islands to the Diplomatic Conference, 'The role of the cash buyer', IMO-doc. SR/CONF/15, paras. 2–3.

¹⁴⁶ Misra/Mukherjee, *Ship Recycling* (2009), at 93; see also the submission by the Republic of the Marshall Islands to the Diplomatic Conference, 'The role of the cash buyer', IMO-doc. SR/CONF/15.

due to the lack of specific knowledge of day-to-day industry operations. Secondly, dealing with recycling companies directly has typically involved letters of credit from South-East Asian countries, reportedly a source of discomfort for some shipowners in the past.¹⁴⁷ The cash solutions offered by cash buyers with their obvious benefits in terms of financial security are one of the key, and most obvious reasons why most ship owners prefer to deal through cash buyers in this process.¹⁴⁸

There is no common or standard procedure for concluding a ship recycling contract. Unlike both ship building negotiations¹⁴⁹ and second-hand sale situations, (intermediary) cash buyers and shipbrokers usually use their own contracts as only very few standard forms exist that are relevant in this context.¹⁵⁰ Regardless of the exact procedure used, which may obviously also influence the overall price, there are a number of relevant factors which govern the price level: The availability and number of ships to be recycled; their 'suitability for scrapping'¹⁵¹ which is affected by ship-specific parameters like type, lightweight tonnage, its production site, condition, kind and amount of spare parts, the ownership record as well as its traded cargo; additional factors include the local and regional demand for recycled steel, the availability of recycling capacity, precise exchange rates, market expectations, and the density of relevant regulation.¹⁵² Strangely enough, the amount of hazardous substances contained in the ship usually does not have any immediate effect on the price.¹⁵³

In the end, preliminary considerations for every price negotiation regarding a ship to be sold for recycling purposes therefore focus on two questions: Firstly,

¹⁴⁷ See Capital Link Shipping, 'Ship Recycling (Scrapping): Trends, Developments, & Outlook Webinar', 23 July 2009, at 8–9.

¹⁴⁸ *Ibidem*, at 8–9.

¹⁴⁹ There are a few standard forms which are widely spread; to name just the most important ones: the SAJ form (1974), the AWES form (1972, revised in 1999), and the US MARAD form (1980); see Mandaraka-Sheppard, *Modern Maritime Law*² (2007), at 425; Curtis, *The Law of Shipbuilding Contracts*² (1996), at 12–13, 247–301; usually, these standard contracts contain the following elements: a detailed description of the ship, contract price, terms of payment, damages and compensation, approval of technical plans, inspections, modifications, trials, date of delivery, delays, guarantees, cancellation by the buyer, buyer's default, ship builder's default, succession and assignment, property, securities, insurance, contract expenses, and patents; for more details, see Stopford, *Maritime Economics*³ (2009), at 210–211.

¹⁵⁰ Stopford, *Maritime Economics*³ (2009), at 213.

¹⁵¹ *Ibidem*, at 213; for a different view with regard to the ships' types, see Strandenes, 'Economics of the Markets for Ships', in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 217, at 223.

¹⁵² Stopford, *Maritime Economics*³ (2009), at 212; see also Misra/Mukherjee, *Ship Recycling* (2009), at 89 and 97–98.

¹⁵³ European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 5; Strandenes, 'Economics of the Markets for Ships', in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 217, at 223; it only seems to have an effect in extraordinary cases such as the odyssey of French aircraft carrier *Clemenceau*; for further information on this case, see *infra* chapter "European Ship Recycling Regulation", B.II.1.b) (in particular pp. 172 et seq.).

what kind and what amount of steel can be recovered? And secondly, what is the precise price level currently offered for this particular kind of steel in the various regions of the world?¹⁵⁴ These considerations are of major importance due to the significant price fluctuations experienced by the ship recycling market in the past. The history of ship recycling has witnessed vast price differences ranging from USD 100 per light displacement ton (ldt)¹⁵⁵ in the 1980s¹⁵⁶ to almost USD 800 per ldt in 2008.¹⁵⁷ In the fourth quarter of 2008, the ship recycling market collapsed overnight by as much as 75 % due to the sudden and exceptional increase in the number of ships offered for recycling.¹⁵⁸ This, again, was a direct consequence of the world business situation leading to extraordinarily low freight rates, thereby decreasing each ship's relative market value.

c) Interdependency

The term 'interdependency', especially of ship building and ship recycling, basically describes and explains the issues referred to above, with the one being the economical counterpart of the other. This interrelationship and mutual dependency means that a particular decision in the first market cannot be made independently from the current state of affairs with regard to the second market and *vice versa*.¹⁵⁹

As an entrepreneurial necessity, interdependency thus requires not only that shipowners look at current freight rates and utilise their merchant fleet accordingly, but also that they develop and implement mid-term and long-term strategies which

¹⁵⁴ European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 6; "In Bangladesh breakers who have no environmental or health and safety costs currently pay 450–500 US\$/t for a ship, while Chinese facilities with slightly better standards offer half this price and US operators a tenth. Indeed, in the days before the boom in steel prices recycling yards in industrial countries even used to charge for the dismantling of naval vessels".

¹⁵⁵ The light displacement ton (ldt) roughly accounts for the steel weight of the ship; see European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, at 5; the measure of gross tons (GT), on the other hand, refers to the overall size of a ship, i.e. its internal capacity; the conversion factor to derive ldt from GT depends on the size of the ship as well as its type and ranges between 46 % and 54 %; COWI/DHI, *Ship Dismantling and Pre-Cleaning of Ships* (June 2007), at 40.

¹⁵⁶ Stopford, *Maritime Economics*³ (2009), at 213.

¹⁵⁷ See BIMCO, 'Hong Kong Convention' (21 September 2009), at 12; see also Rozenveld, 'Global Project Ship Recycling', *Ship Scrapping & Recycling* (Lloyd's Maritime Academy seminar, 2009), at 40.

¹⁵⁸ BIMCO, 'Hong Kong Convention' (21 September 2009), at 12, 39.

¹⁵⁹ Stopford, *Maritime Economics*³ (2009), at 178–179, 213–214; Stopford, 'Shipping Market Cycles', in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 235, at 249–250; European Commission, 'Green Paper on better ship dismantling', EU-doc. COM (2007) 269, at 5; Puthucherril, *From Shipbreaking to Sustainable Ship Recycling* (2010), at 13–14; see also Müller, 'Endstation am Tropicstrand', *Welt am Sonntag* (5 July 2009), at 25; ibidem, 'Schiffsabwracker erwarten Rekordjahr', *Financial Times Deutschland* (12 June 2009), at 5; Behling, 'Harte Schnitte', *Süddeutsche Zeitung* (15 November 2008), at V2/3.

should take account of the general market development—including such fragile notions such as speculative investment behaviour and market expectations.¹⁶⁰ The interdependent relationship between speculative investments, market expectations and market cycles is illustrated by the following well-known patterns.

According to STOPFORD, there are certain drivers and triggers of market cycles which occur periodically and thus are well-known¹⁶¹: The beginning of such a market cycle typically sees freight rates rise, resulting in an increased cash inflow. On the one hand, this development induces shipowners to offer higher prices for ships on the second-hand market in order to increase the number of ships in the short term. Due to the elevated price level, investors, on the other hand, concentrate their efforts more and more on the ship building market which now seems to promise higher returns on their investments. These newly ordered ships hit the freight market with a delay of a few years and immediately the whole process is turned upside down, with falling freight rates leading to a substantial reduction in shipowners' cash inflow. The reduced liquidity has negative implications for the financial obligations resulting from the newly ordered ships, potentially leading to compulsory and thus costly sales on the second-hand market. With regard to older ships, however, offers will be significantly lower than with regard to more modern ships as the 'buying low and selling high'¹⁶² strategy typically concentrates on the latter. Consequently, shipowners facing economically extreme circumstances and cash flow pressures are forced to send older ships to the recycling yards considerably before they have reached the end of their operational use. This more or less balanced market cycle might additionally be influenced (and worsened) by external effects relating to the world economy such as natural catastrophes which renders rational decision-making even more difficult.¹⁶³

As a preliminary conclusion, both ship building and ship recycling are thus highly competitive markets dominated by the price mechanism.¹⁶⁴ Market cycles critically determine the amount of liquidity available and overall interdependency, from time to time, makes rational decision-making in the shipping markets more of an economic lottery. Therefore, a few more insights into decision-making in this respect will help to understand the bigger picture of ship recycling.

¹⁶⁰ Gorton/Ihre/Sandevärn, *Shipbroking and Chartering Practice*⁴ (1995), at 12; Strandenes, 'Economics of the Markets for Ships', in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 217, at 221.

¹⁶¹ For a detailed description of such shipping market cycle patterns, see Stopford, *Maritime Economics*³ (2009), at 178–179, 628–629.

¹⁶² *Ibidem*, at 179.

¹⁶³ *Ibidem*, at 178–179, 203.

¹⁶⁴ *Ibidem*, at 629.

2. Decision-Making in the Shipping Markets

Due to the volatility in ship prices, most shipowner decisions regarding market transactions in the shipping industry are made in consideration of the relative value of each individual ship.¹⁶⁵ This approach begs the question as to how the specific market value of a particular ship is measured and determined.

In general terms, the market value of an individual ship, like any other commodity, is determined by negotiation between the shipowner and an investor in a particular market. More important, however, is the fact that the negotiation is substantially influenced by the following four parameters: freight rates,¹⁶⁶ the ship's age, inflation,¹⁶⁷ and shipowners' or investors' expectations for the future.¹⁶⁸

a) Freight Rates

When freight rates are high, interest by investors and shipping companies increases the level of demand for ships, which leads to a reduced number of ships available for sale at the relevant market, thus causing a peak in ship prices.¹⁶⁹ This demonstrates a direct correlation between freight rates and second-hand prices for ships and, at the very least, an indirect correlation between freight rates and prices for new ships.¹⁷⁰

¹⁶⁵ See, e.g., Hampton, Long and short shipping cycles³ (1991), at 1.

¹⁶⁶ Ibidem: "In the shipping market, price movements provide the cues. Changes in freight rates or ship prices signal the next round of investment decisions. Freight rates work themselves higher and trigger orders. Eventually excess orders undermine freight rates. Lower freight rates stall orders and encourage demolition. At the low point in the cycle, reduced ordering and increased demolition shrink the supply and set the stage for a rise in freight rates. The circle revolves".

¹⁶⁷ Investments in ships usually turn out to be long-term investments which is why inflation is an important factor to keep in mind as a matter of course; because this is valid for basically every long-term investment and does not apply exclusively to the shipping sector, inflation will not be discussed in detail here; for further information on the relevance of inflation in this context, see Stopford, *Maritime Economics*³ (2009), at 205–206.

¹⁶⁸ This list of parameters is suggested by Stopford, *Maritime Economics*³ (2009), at 204; see also Strandenes, 'Economics of the Markets for Ships', in Grammenos (ed.), *The Handbook of Maritime Economics and Business* (2002), 186, at 190; other authors also add technology, the reputation of shipowners and managers as well as the physical condition of the ship to the factors influencing a ship's particular value; see, e.g., Misra/Mukherjee, *Ship Recycling* (2009), at 89; see also the submission by India to MEPC 58, 'Recycling capacity for entry into force criteria for the International Convention for the Safe and Environmentally Sound Recycling of Ships', IMO-doc. MEPC 58/3/14, para. 10.

¹⁶⁹ See Strandenes, 'Economics of the Markets for Ships', in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 217, at 229–230.

¹⁷⁰ Cf. Stopford, *Maritime Economics*³ (2009), at 204–205.

b) Age

The age of a ship influences its value to a large extent, but as this depreciation again depends on freight rates, it is difficult to frame a rule in this context. For obvious reasons, age naturally results in loss of performance, in higher maintenance and monitoring costs as well as increased material expenses and overall declining earning potential.¹⁷¹

The common accountancy method is to depreciate a ship's value based on a life cycle of 15–20 years.¹⁷² Brokers in the shipping industry calculate that ships lose roughly 5–6 % of their market value each year, providing virtually the same outcome.¹⁷³ Reality in the shipping industry, on the other hand, shows that a ship's life cycle is becoming longer and longer, i.e., it is no longer unusual to have ships operating for 25–30 years.¹⁷⁴ To a great extent, the total life cycle also depends on the individual ship's type.¹⁷⁵

c) Expectations

The last parameter to address is expectations. At least with regard to the second-hand market, expectations are said to exert the most important influence on ship prices.¹⁷⁶ The price volatility in the shipping industry means that particular expectations drive specific speculative investments, which sometimes forces ship brokers to “rush to trade”.¹⁷⁷ In so doing, they might even accelerate cyclical developments at market turning points.¹⁷⁸

¹⁷¹ Ibidem, at 205; Bio Intelligence Service, ‘Preliminary analysis on the feasibility of a list likely to go for dismantling’ (2009), at 8.

¹⁷² Stopford, *Maritime Economics*³ (2009), at 205.

¹⁷³ Ibidem, at 205; see also Misra/Mukherjee, *Ship Recycling* (2009), at 99–100.

¹⁷⁴ See, e.g., Hess et al., *disposal options for ships* (2001), at 42; Misra/Mukherjee, *Ship Recycling* (2009), at 99; cf. Puthucherril, *From Shipbreaking to Sustainable Ship Recycling* (2010), at 13; in this context, note the suggestions by a few major European shipowners to tackle the problem of overcapacity by excluding ships older than 20/25/30 years from the market; cf. Stares, ‘EU in crisis talks on scrapping age’, *Lloyd’s List*, 25 March 2009, at 2; ‘A continent divided’, *Lloyd’s List*, 3 April 2009, at 2.

¹⁷⁵ For a table indicating the range of the average dismantling age for a number of different types, see Bio Intelligence Service, ‘Preliminary analysis on the feasibility of a list likely to go for dismantling’ (2009), at 10.

¹⁷⁶ Strandenæs, ‘Economics of the Markets for Ships’, in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), at 229–232; cf. Stopford, *Maritime Economics*³ (2009), at 206.

¹⁷⁷ Stopford, *Maritime Economics*³ (2009), at 206.

¹⁷⁸ Ibidem, at 206.

3. Summary

Altogether, two crucial aspects may be drawn from the given overview: Firstly, a description of market cycle developments experienced by the shipping markets in the past shows the extreme level of price volatility and the overall importance of the price mechanism. And secondly, the interdependency of the different life cycle stages of ships is another key characteristic of the global shipping markets rendering decision-making in these markets even more difficult.

II. Economic Incentives Employed in the Convention

Against this general economic background of the shipping markets, the following sections will address the structure of economic incentives employed in the Hong Kong Convention. Economic incentives are relevant in this case due to the number of ratifications required by the Hong Kong Convention before it enters into force. Needless to say, in order to receive these ratifications, the Hong Kong Convention needs to be attractive to the states it addresses.¹⁷⁹ And how attractive the convention is may be determined from an analysis of the general economic incentives it contains.

1. Preliminary Assumptions

Whereas crucial factors such as the price mechanism, the price volatility and the overall market situation discussed above primarily affect the business decisions of privately owned companies, the Hong Kong Convention as a multilateral international treaty addresses only states.¹⁸⁰ Therefore, for the sake of clarity, two

¹⁷⁹ See the submission by Norway to the Intersessional Meeting of the Working Group on Ship Recycling, 'Consideration of the use of Ship Recycling Facilities under the jurisdiction of non-Parties' (14 December 2007), IMO-doc. MEPC-ISRWG 3/2/9, at 2; for a general perspective, see Hahn/Richards, 'The Internationalization of Environmental Regulation', 30 Harv. Int'l L. J. 421 (1989), at 436; for a similar assessment in a slightly different context, see Krepon, 'Conclusions', in Krepon/Caldwell (eds.), *The Politics of Arms Control Treaty Ratification* (1991), at 399–416; see also 'Another look at green recycling', Fairplay, 17 June 2010, at 27 (comparing preferred methods of ship recycling from an economic perspective); Guzman, *How International Law Works* (2008), at 132–133, 180; for an eventually positive assessment of costs resulting from the ratification of the Hong Kong Convention, see the briefing by Nikos Mikelis, 'No fear of convention costs', Fairplay, 19 November 2009, at 21.

¹⁸⁰ See Chayes/Chayes, *The New Sovereignty* (1995), at 13–14: "A treaty is an agreement among states, and an undertaking by them as to their future conduct. The object of the agreement is to affect state behavior. [...] [C]ontemporary regulatory treaties [...] are formally among states, and the obligations are cast as state obligations [...]. The real object of the treaty, however, is not to affect state behavior but to regulate the activities of individuals and private entities"; on the 'domestication of international environmental law', see also Bodansky, 'The Legitimacy of International Governance: A Coming Challenge for International Environmental Law?', 93 A.J. I.L. 596 (1999), at 610–611; Nollkaemper, 'Responsibility of transnational corporations in

simplifications will be adopted in the following analysis: First of all, the interests and preferences of relevant states will be defined as corresponding with the interests of their dominant respective private companies.¹⁸¹ And secondly, to keep the model simple, this study will be restricted to the two major heterogeneous groups of states concerned: the most important flag states, and the key recycling states.¹⁸²

These simplifications are based upon two general assumptions: The first one is that states, as entities, act rationally. States, just as any other unitary actor, “engage in purposive, means-ends calculation in order to attain their goals—that is, they select actions so as to maximize their utility”.¹⁸³ As THOMPSON correctly pointed out, this assumption has both normative and positive aspects¹⁸⁴: Its normative element derives from the fact that it suggests specific means in order to facilitate the achievement of certain results and objectives,¹⁸⁵ i.e., it literally proposes which route to take. The positive dimension lies within its application, to explain and predict behaviour of specific entities.¹⁸⁶ In this respect, it says why a particular actor behaves in a specific manner having taken into account that actor’s

international environmental law: three perspectives’, in Winter (ed.), *Multilevel Governance of Global Environmental Change* (2006), at 179 et seq.

¹⁸¹ See the submission by Norway to the Intersessional Meeting of the Working Group on Ship Recycling, ‘Consideration of the use of Ship Recycling Facilities under the jurisdiction of non-Parties’ (14 December 2007), IMO-doc. MEPC-ISRWG 3/2/9, at 2: “It should be noted that it is likely that States involved in the operating phase of a ship (flag States), are probably not the same as States involved in the recycling of a ship (recycling States).”; see also *ibid.*, at 3: “it should be noted that such consideration will depend on whether the State consider[s] itself as dominantly a flag State or a ship recycling State”; see also Barrett, ‘An Economic Theory of International Environmental Law’, in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 231, at 235; Elster, ‘Rationality, Morality, and Collective Action’, 96 *Ethics* 136 (1985), at 136–137.

¹⁸² For the purpose of this analysis, major flag states are those belonging to the top five in terms of merchant tonnage, i.e. Panama, Liberia, Bahamas, Marshall Islands, and Hong Kong; see Lloyd’s Register Fairplay, *World Fleet Statistics 2009* (2010), at 23–29; key recycling states, on the other hand, are India, Bangladesh, Pakistan, China and Turkey; see in general Milieu/COWI, *Study in relation to options for new initiatives regarding dismantling of ships* (2009), appendix 1; see *supra* chapter “Entry-Into-Force Provision”, B.II and B.III (pp. 49 et seq.); for a similar approach, see Elster, ‘Rationality, Morality, and Collective Action’, 96 *Ethics* 136 (1985), at 139.

¹⁸³ Thompson, ‘Applying Rational Choice Theory to International Law: The Promise and Pitfalls’, 31 *J. Legal Stud.* S285 (2002), at S287; see Guzman, *How International Law Works* (2008), at 155; see also Snidal, ‘International political economy approaches to international institutions’, in Bhandari/Sykes (eds.), *Economic Dimensions in International Law* (1997), 477, at 480: “[...] the key assumption is that actors (usually nation-states) are maximizing agents operating under a set of political constraints described as anarchy”.

¹⁸⁴ Thompson, ‘Applying Rational Choice Theory to International Law: The Promise and Pitfalls’, 31 *J. Legal Stud.* S285 (2002), at S287; see also Elster, ‘Introduction’, in Elster (ed.), *Rational Choice* (1986), at 1–4.

¹⁸⁵ See Harsanyi, ‘Advances in Understanding Rational Behaviour’, in Elster (ed.), *Rational Choice* (1986), 82, at 83; Thompson, ‘Applying Rational Choice Theory to International Law: The Promise and Pitfalls’, 31 *J. Legal Stud.* S285 (2002), at S287.

¹⁸⁶ Thompson, ‘Applying Rational Choice Theory to International Law: The Promise and Pitfalls’, 31 *J. Legal Stud.* S285 (2002), at S287.

preferences, knowledge, and the strategic setting.¹⁸⁷ Literally, again, it tries to explain why a particular route was taken. The second, even more basic assumption concerns the ‘aggregation of preferences’. States are treated as unitary actors because it is assumed that they will aggregate and eventually channel different domestic preferences, so that ultimately there is no difference in decision-making between an individual actor and collective entities such as states in this respect.¹⁸⁸

To further illustrate the strong link between interests of dominant domestic industries and their respective states’ preferences as regards international regulation, an integrated approach to state behaviour¹⁸⁹ will be applied on the basis of three accepted international relations’ theories, i.e. rationalism, constructivism and liberalism.¹⁹⁰ A short explanation of the reasoning adopted in this respect will facilitate further understanding. According to rationalist doctrine, states ultimately seek power. Their behaviour is strictly rational, i.e. they strategically¹⁹¹ attempt to maximise their utility in light of their preferences¹⁹² and their perceptions of the given situation.¹⁹³ Constructivism follows a more holistic approach: States are influenced by the

¹⁸⁷ *Ibidem*, at S287.

¹⁸⁸ *Ibidem*, at S291: “In practice, the unitary-actor assumption usually combines an element of methodological convenience with some belief that it is an empirically accurate portrayal of state behaviour”; see also Goldsmith/Posner, ‘New International Law Scholarship’, 34 *Ga. J. Int’l & Comp. L.* 463 (2006), at 472–475; for a differentiation between ‘interest actors’ motivated by material interests and principle-guided ‘value actors’, see Abbott/Snidal, ‘Values and Interests: International Legalization in the Fight against Corruption’, 31 *J. Legal Stud.* S141 (2002), at S145–S147; for opinions to the contrary, see, e.g., Putnam, ‘Diplomacy and Domestic Politics: The Logic of Two-Level Games’, 42 *Int’l Org.* 427 (1988), at 432–433; Shepsle, ‘Congress Is a “They”, Not an “It”: Legislative Intent as Oxymoron’, 12 *Int’l Rev. L. Econ.* 239 (1992), at 248–250; Slaughter, *A New World Order* (2004), at 131–165; Paulus, ‘Potential and Limits of the Economic Analysis of International Law’, 165 *J.I.T.E.* 170 (2009), at 171–172; another explanation for the second simplification, i.e. the restriction in terms of relevant actors, can be drawn from the fact that individual ratification is the more likely the less organised domestic opposition there is.

¹⁸⁹ In this context, see, e.g., Hathaway, ‘Between Power and Principle: An Integrated Theory of International Law’, 72 *U. Chi. L. Rev.* 469–536 (2005).

¹⁹⁰ Cf. Shaw, *International Law*⁶ (2008), at 67–68: “Law is not the only way in which issues transcending borders are negotiated and settled or indeed fought over. [...] Law and politics cannot be divorced. They are not identical, but they do interact on several levels. They are engaged in a crucial symbiotic relationship. It does neither discipline a service to minimise the significance of the other”.

¹⁹¹ Snidal, ‘The limits of hegemonic stability theory’, 39 *Int’l Org.* 579 (1985), at 594.

¹⁹² The importance of reputation in this respect is unclear; see Downs/Jones, ‘Reputation, Compliance, and International Law’, 31 *J. Legal Stud.* S95 (2002), at S96–S98; see also Huang, ‘International Environmental Law and Emotional Rational Choice’, 31 *J. Legal Stud.* S237 (2002), at S240; Guzman, ‘Reputation and International Law’, 34 *Ga. J. Int’l & Comp. L.* 379–391 (2006); *idem*, *How International Law Works* (2008), at 34–41.

¹⁹³ Hathaway, ‘Between Power and Principle: An Integrated Theory of International Law’, 72 *U. Chi. L. Rev.* 469 (2005), at 478–479; Brunnée/Toope, ‘International Law and Constructivism: Elements of an Interactional Theory of International Law’, 29 *Colum. J. Transnat’l L.* 19 (2000), at 27–29.

behaviour of their neighbours as well as by state interactions within transnational 'social' networks.¹⁹⁴ These social structures surrounding each state facilitate common understandings,¹⁹⁵ thereby resulting in particular agents being persuaded to internalise new ideas. This process of internalisation leads these agents to re-define their preferences and, eventually, the state's identity accordingly.¹⁹⁶ Ultimately, constructivism therefore provides a theory on norm evolution and its influence on state identity. Finally, liberalism assumes that individuals, major societal institutions and other units of the domestic realm are the key actors influencing state behaviour.¹⁹⁷ Therefore, "the nature and intensity of State preferences, determined as an aggregation of the preferences of individual and group actors represented in a particular State, will determine the outcome of State interactions".¹⁹⁸ Specific patterns of behaviour are furthermore dependent on each state's political constitution as well as domestic policy insofar as preferences are fostered and shaped accordingly.¹⁹⁹

An integrated approach accordingly focuses not only on generally beneficial results for the state as such, but also takes into account influences from transnational social networks as well as pressure from particular dominant groups in the domestic realm.

Therefore, a methodological clarification of the analysis with regard to the most relevant actors, as suggested, will be directly consistent with rationalist and liberalist considerations in this respect, and, indirectly, also in line with constructivist ideas. The latter approach is only indirectly relevant due to the fact that the influence of transnational social networks and relationships with neighbour states on decision-making processes cannot be measured or empirically falsified. This also applies to the influence of domestic lobby groups, such as important industries.

To categorise particular groups of states according to this approach is also consistent with basic well known patterns: Over the last few decades, international environmental regulation has seen some progress in spite of "two contradictory tendencies"²⁰⁰: In general, states may, on the one hand, have an interest in the protection of the environment on an abstract level, but their decisions, on the other

¹⁹⁴ Brunnée/Toope, 'International Law and Constructivism: Elements of an Interactional Theory of International Law', 29 *Colum. J. Transnat'l L.* 19 (2000), at 30–31.

¹⁹⁵ *Ibidem*, at 29–30.

¹⁹⁶ Goodman/Jinks, 'How to Influence States: Socialization and International Human Rights Law', 54 *Duke L. J.* 621 (2004), at 635.

¹⁹⁷ See, e.g., Raustiala, 'Domestic Institutions and International Regulatory Cooperation', 49 *World Politics* 482 (1997), at 483; Slaughter, 'International Law in a World of Liberal States', 6 *Eur. J. Int'l L.* 503 (1995), at 507–508.

¹⁹⁸ Slaughter, 'International Law in a World of Liberal States', 6 *Eur. J. Int'l L.* 503 (1995), at 508; see also Thompson, 'Applying Rational Choice Theory to International Law: The Promise and Pitfalls', 31 *J. Legal Stud.* S285 (2002), at S291–S294.

¹⁹⁹ Hathaway, 'Between Power and Principle: An Integrated Theory of International Law', 72 *U. Chi. L. Rev.* 469 (2005), at 484; Slaughter, 'International Law in a World of Liberal States', 6 *Eur. J. Int'l L.* 503 (1995), at 508.

²⁰⁰ Cf. Beyerlin, 'Different Types of Norms in International Environmental Law', in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 425, at 427–428.

hand, are principally dependent on the potential economic disadvantages they face.²⁰¹ Hence, there is a strong implication that states with similar industry structures will be guided by predominantly the same ideas, objectives and incentives.²⁰² Therefore, individual states form coalitions in order to effectively bargain for their respective mutual interests, a behaviour witnessed during the drafting period of the Hong Kong Convention, at the Diplomatic Conference as well as in its aftermath.²⁰³ With particular regard to the key objectives of this convention, as described above, it becomes comprehensible why the following analysis is restricted to flag states and recycling states, respectively: Protection of both human health and the environment from the harm caused by ship recycling operations requires action and change in behaviour from both flag states and recycling states.

The final clarification relates to the understanding of the term 'economic incentives'. Economic incentives, as regards international environmental regulation, will be understood as specific instruments providing one-off or continuous inducement, monetary or near-monetary, to encourage individual entities to act in a specific way.²⁰⁴ In light of the assumptions mentioned above, economic incentives therefore have a specific impact on those sets of preferences which relevant actors would have in the absence of such inducement.²⁰⁵ In the context of the Hong Kong Convention, (positive) economic incentives thus provide a regulatory inducement for a particular group of states to ratify the treaty and to subsequently endeavour to

²⁰¹ Kemfert, 'Strategies to Induce Non-cooperating Countries to Join a Climate-policy Coalition', 6 *Int'l Rev. Env'tl Strategies* 93 (2006), at 93 see also a recent post by Raustiala on <<http://opiniojuris.org/2010/01/26/copenhagen-and-compliance/>> (accessed 31 January 2012): "States may want to commit to a given regime but will often fear the unexpected costs that may result. This is particularly true in IEL [i.e. international environmental law] where there are usually major but unpredictable economic implications to regulation".

²⁰² See Sandler, *Global Collective Action* (2004), at 10; see also Tollison/Willett, 'Economic Theory of Mutually Advantageous Issue Linkages in International Negotiations', 33 *International Organization* 425 (1979), at 446.

²⁰³ According to Kemfert, the formation of such coalitions usually follows a "comparison of the net benefits of cooperative and non-cooperative strategies": Kemfert, 'Strategies to Induce Non-cooperating Countries to Join a Climate-policy Coalition', 6 *Int'l Rev. Env'tl Strategies* 93 (2006), at 94; as long as there are no enforceable obligations to protect the environment, and as long as the environment is treated as a public good, there will only be a few benefits resulting from cooperative behaviour. Moreover, free-riding seems to be quite beneficial as "[...] the economic payoffs of free riding are higher than those of joining the coalition"; *ibidem*, at 95; with a view to a bargaining coalition of the major ship recycling states in case of the Hong Kong Convention, see 'Recycling at a crossroads', *Fairplay*, 4 March 2010, at 3; for further references, see *supra* chapter "Entry-Into-Force Provision", note 45.

²⁰⁴ See, e.g., NCEE, *International Experiences with Economic Incentives for Protecting the Environment* (2004), at 2.

²⁰⁵ Princen, *EU Regulation and Transatlantic Trade* (2002), at 39; cf. Young, 'Regime Dynamics: The Rise and Fall of International Regimes', 36 *Int'l Org.* 277 (1982), at 292: "Regimes are never neutral with respect to their impact on the interests of participating actors".

comply with its provisions.²⁰⁶ Such instruments successfully induce the desired action as long as the benefits of ratification and compliance outweigh the potential negative implications of these actions.²⁰⁷

These preliminary considerations and clarifications serve as a basis for the following analysis of the economic incentives employed in the Hong Kong Convention.

2. Incentives for Recycling States

As has been mentioned above, the interests of recycling states will be used synonymously with the interests of their respective ship recycling companies.²⁰⁸

²⁰⁶ In this context, see the submission by Norway to the Intersessional Meeting of the Working Group on Ship Recycling, 'Consideration of the use of Ship Recycling Facilities under the jurisdiction of non-Parties', IMO-doc. MEPC-ISRWG 3/2/9, at 3: "The following elements may be considered by a State in examining whether to ratify the Convention:

- State may have an interest in solving the problem addressed by the Convention;
- a State may experience pressure to ratify from its ship owners [...];
- a State may experience pressure to ratify from its recycling facilities [...];
- a State may experience pressure to ratify from labour organizations, environmental organizations or other groups;
- a State may experience pressure to ratify from the international arena;
- compliance: can all ships flying our flag comply; and can some/most/all recycling facilities operating under our jurisdiction comply?
- administrative burden; i.e., can we establish an administrative system enabling us to meet our Party obligations?"

²⁰⁷ In this context, see Henkin: "[S]ince there is no body to enforce the law, nations will comply with international law only if it is in their interest to do so; they will disregard law or obligation if the advantages of violation outweigh the advantages of observance. Of course, if national interest and advantage are defined broadly enough, this formula may be true and may indeed be a truism. [...] [It] usually requires an expectation of important countervailing advantage to tempt a nation to violate [international] law", Henkin, *How Nations Behave* (1979), at 49–50; hence, according to him, the question for a nation of whether or not to comply is basically answered by some kind of accounting: This procedure's main problem is that the costs related to violation are multifaceted making it almost impossible to come to a precise estimate – it might often be the case that concrete and immediate advantages of violation face unclear, rather long-term and virtually unpredictable costs; see *ibidem*, at 50 and 69; see also Keohane, 'International Relations and International Law: Two Optics', 38 *Harv. Int'l L. J.* 487 (1997), at 489: "Even if a state benefits from other states' compliance with rules, it may benefit more if others continue to comply while it pursues its short-term self-interest. The more compelling the interest to a state in behaving contrary to the rule, the more modification, reinterpretation, and breach there will be."; there are, however, some focal points which might be of general relevance such as the consistency of a nation's foreign policy, prestige, and special relations with other nations; with specific regard to the latter point, see *ibidem*, at 490: "Another compliance-inducing interest is the desire to maintain a pattern of beneficial cooperation".

²⁰⁸ Furthermore, it is obviously in the interest of recycling states to generally support their national economy, especially where a very limited number of regionally adjacent states are competing with each other for the same products; in this context, it is important to acknowledge that states such as Bangladesh accommodate 80–90 % of their national demand for second-hand steel via their

Therefore, the key interest of these states is to increase their companies' profits or to at least sustain them.²⁰⁹ As a particular company's profit is the result of its revenues minus its costs, this means that the overall revenues would have to be increased in order to at least sustain the present level of profits, as the implementation of the Hong Kong Convention will almost certainly result in higher overall costs.²¹⁰ As higher overall revenues for ship recycling facilities are unlikely in the current situation, it is one of the main interests of ship recycling companies, and subsequently of recycling states, to minimise—as far as feasible—an increase in overall costs.²¹¹

Therefore, with particular regard to the provisions as established by the Hong Kong Convention, direct economic incentives for recycling states are provided through financial funds,²¹² capacity-building measures²¹³ and general active co-operation efforts.²¹⁴ More indirectly, the introduction of an inventory of hazardous materials²¹⁵ will considerably facilitate the handling and management of these

domestic ship recycling industry; see European Commission, 'Green Paper on better ship dismantling', EU doc. COM(2007) 269, at 2.

²⁰⁹ This ascertainment does not exclude the fact that some ship recycling companies might actually have an interest in enhancing their green and ecological reputation; however, this probably does not apply to the vast majority of ship recycling companies in countries such as India, Bangladesh, Pakistan and (to a less degree) China.

²¹⁰ Strandenæs, 'Economics of the Markets for Ships', in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 217, at 221; Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention', at 34–35: "The additional costs for compliant or 'green' recycling ranging from 25–150 USD/LDT would result in a loss of net-revenue for the owner of a ship flying an EU flag. A very large crude oil tanker (VLCC) with a cargo carrying capacity of ca. 300.000 tonnes will have ca. 45.000 LDT and only last year fetched more than 30 million USD in Bangladesh. Under the current market conditions of approximately 250 USD/LDT its value has dropped to approximately 11.25 million USD. With the additional cost for compliant or green recycling the ship-owner would instead receive between 100–225 USD/LDT and most probably in the area of 200 USD/LDT or 9 million USD compared to that of 11.25 USD today at a traditional scrapping facility in Bangladesh".

²¹¹ The theoretical alternative, i.e. introducing higher ship recycling prices to increase revenue will not work satisfactorily as long as there are competitors offering their ship recycling services at the present price level.

²¹² Financial funds have been under discussion quite some time in order to provide a "[...] proper incentive for the stakeholders (i.e. the shipping industry and the ship scrapping industry) to ensuring that ships are dismantled in a safe and environmentally sound/certified facility."; Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention', at 35; however, the discussion on the feasibility of establishing a fund to bridge the financial gap between ship recycling at conventional Asian facilities and in safe and environmentally sound facilities has not yet been concluded.

²¹³ Article 13.1 HKC.

²¹⁴ Article 13.2 HKC.

²¹⁵ Regulation 5 HKC.

materials, and will also reduce transaction costs relating to the primary assessment of the ship's condition as well as its subsequent processing.²¹⁶

For an assessment whether the particular benefits of ratification outweigh the related potential negative implications,²¹⁷ the individual disincentives have to be taken into account as well: Negative incentives include those regulatory measures generating additional costs²¹⁸ which—at least initially—have to be borne by the ship recycling companies.²¹⁹ The following requirements may thus be seen as having negative implications: the mandatory authorisation process for each ship recycling facility,²²⁰ the development of a 'Ship Recycling Plan'²²¹ and a 'Ship Recycling Facility Plan'²²² (both of which the ship recycling facility is responsible for, according to the Hong Kong Convention), procedures for the prevention of adverse effects to human health and the environment,²²³ procedures for safe and environmentally sound management of hazardous materials,²²⁴ establishment and maintenance of an emergency preparedness and response plan,²²⁵ measures regarding staff's training and equipment,²²⁶ reporting obligations for incidents etc.,²²⁷ as well as the reporting requirement prior to recycling²²⁸ and upon completion.²²⁹ There are also a few reporting requirements directly addressed at the recycling states themselves which have to be additionally taken into account as negative incentives as they increase administrative costs.²³⁰

²¹⁶ European Commission, 'Impact Assessment for an EU strategy for better ship dismantling', EU-doc. SEC(2008) 2846, at 27.

²¹⁷ See supra chapter "Entry-Into-Force Provision", D.II.1 (p. 76).

²¹⁸ Milieu/COWI, 'Note on the ship dismantling fund', at 6; Strandenes, 'Economics of the Markets for Ships', in Grammenos (ed.), *The Handbook of Maritime Economics and Business*² (2010), 217, at 228.

²¹⁹ It is estimated that compliance with the Hong Kong Convention will probably result in scrapping margins of about 90–95 % of the present margins, i.e. a profit reduction of approximately 5–10 %; see Capital Link Shipping, 'Ship Recycling (Scrapping): Trends, Developments, & Outlook Webinar', 23 July 2009, p. 8–10; allegedly, these additional costs are to be transferred completely to the shipowners via reduced profits in the sales' contracts regarding the ships to be recycled; however, this mechanism does only work in case the vast majority of competing recycling states ratifies and implements the relevant provisions at the same time; otherwise, the present single ship recycling market will be divided into an expensive and 'high-standard' section as established by the Hong Kong Convention and a considerably cheaper 'sub-standard' one.

²²⁰ Regulation 16 HKC.

²²¹ Regulation 9 HKC.

²²² Regulation 18 HKC.

²²³ Regulation 19 HKC.

²²⁴ Regulation 20 HKC.

²²⁵ Regulation 21 HKC.

²²⁶ Regulation 22 HKC.

²²⁷ Regulation 23 HKC.

²²⁸ Regulation 24.2–24.3 HKC.

²²⁹ Regulation 25 HKC.

²³⁰ Article 12.1–12.3 and 12.5–12.7 HKC.

Given this extensive list of disincentives, it becomes obvious that the above-mentioned positive effects and implications are far from being capable of outweighing the negative implications. Hence, a preliminary assessment of these incentives shows that from an exclusively economic perspective, the inducement to ratify the Hong Kong Convention is not too high for recycling states.²³¹

3. Incentives for Flag States

Central to the matters of interest for flag states are those provisions that address their respective authoritative and jurisdictional duties²³² and the obligations of shipowners with ships flying their flags.

With regard to the first category, the objective of flag states, besides general support for their national economy, is to reduce likely administrative burdens resulting from regulation as much as possible.²³³ As regards the second group of obligations, their prime interest again relates to general profitability considerations for these private shipowning entities.²³⁴

Therefore, the following positive impacts can be identified: higher ship operating standards, additional business and job opportunities with regard to the inventory of hazardous materials as well as with regard to classification societies,²³⁵ a lenient but limited 'grandfather clause' with regard to the establishment of hazardous materials' inventories of already existing ships,²³⁶ eventually indemnity

²³¹ The case of Turkey might be different however due to its ship recycling facilities already providing relatively high standards as compared to those in South Asian ship recycling states, which may generally result in lower costs for implementing the standards prescribed by the Hong Kong Convention; the same more and more applies to a number of modern Chinese ship recycling facilities, see Garfield, 'Well-equipped "green" Chinese yards looking to grow', *Tradewinds*, 12 March 2010, at 20.

²³² See *infra* chapter "European Ship Recycling Regulation", A.I.2 (pp. 104 et seq.).

²³³ See *supra* chapter "Entry-Into-Force Provision", B.II (p. 49).

²³⁴ See, e.g., Parkinson, 'Regulatory Matters, Industry Guidelines and Voluntary Code of Practice', *Recycling of Ships & Other Marine Structures* (2005), 1, at 5.

²³⁵ Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention', at 30.

²³⁶ Cf. Faure, 'Environmental Regulation', *Encyclopedia of Law and Economics* (online, 2008), 443, at 474: "The industrial interest groups to whom the environmental regulation will be applied may realize that regulation may enhance producer wealth while it simultaneously corrects, or at least reduces, an externality problem. [...] the industry, realizing that environmental regulation is unavoidable, will cooperate in the development of the regulation and try to change the contents to its advantage. A classic example is the introduction of so-called 'grandfather clauses' which stipulate that the regulation will not be applicable to firms or products which are already in existence. Hence, the regulation can create a new barrier for market entry and so protect the existing industrial practices and products".

against liability risks,²³⁷ and such even less tangible issues like positive publicity.²³⁸

Regulatory disincentives which reduce the probability of the Hong Kong Convention being ratified by flag states include: the establishment and maintenance of the inventory of hazardous materials,²³⁹ specific ship-oriented preparations to be conducted prior to recycling,²⁴⁰ the establishment of a number of surveys controlling *inter alia* both accuracy and management of the inventory of hazardous materials,²⁴¹ certification obligations,²⁴² as well as notification requirements.²⁴³ In addition, it is expected that a substantial part of the additional costs for ship recycling companies will be transferred to the shipowners in the end.²⁴⁴ Furthermore, there are substantial fears among shipping companies that recycling capacity will not be available in the quantity necessary to serve the respective needs after the entry-into-force of the Hong Kong Convention.²⁴⁵ To formulate this fear in economic terms: Shipowners are afraid that the entry-into-force of the Hong Kong Convention might result in considerably lower prices for the sale of ships for recycling operations due to substantially reduced competition between ship recycling companies.²⁴⁶ Less tangible are concerns expressed by the shipping industry claiming that the establishment and maintenance of an inventory of hazardous materials might lead to the disclosure of intellectual property and trade

²³⁷ Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention', at 34.

²³⁸ Ibidem, at 34; European Commission, 'An assessment of the link between the IMO Hong Kong Convention for the safe and environmentally sound recycling of ships, the Basel Convention and the EU waste shipment regulation', EU-doc. COM(2010) 88, para. 3; for further information on the importance of reputation in international law, see Guzman, 'Reputation and International Law', 34 Ga. J. Int'l & Comp. L. 379–391 (2006); Downs/Jones, 'Reputation, Compliance, and International Law', 31 J. Legal Stud. S95–S114 (2002).

²³⁹ Regulation 5 HKC; the inventory of hazardous materials has already been widely accepted by shipowners, cf. McCarthy, 'Owners get ready for IMO hazardous material rules', Lloyd's List, 27 October 2010, at 9.

²⁴⁰ Regulation 8 HKC.

²⁴¹ Regulation 10 HKC.

²⁴² Regulations 11–14 HKC.

²⁴³ Regulation 24.1 HKC.

²⁴⁴ Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention', at 34: "The additional costs of the recycling facilities will be transferred to the ship-owners resulting in reduced profit when selling a ship for recycling. For this reason, compliant recycling capacity will only develop if the market is willing to pay (obtain less profit)".

²⁴⁵ Finn, 'The Role of the Shipbroker', Ship Recycling Conference 2005; see *supra* chapter "Entry-Into-Force Provision", C.I (pp. 54).

²⁴⁶ Even more precisely, shipping companies expect one of the major implications of the Hong Kong Convention to be the regulatory establishment and fixation of a buyers' market in this respect.

secrets.²⁴⁷ Furthermore, there are some additional requirements addressed at flag states themselves, including reporting requirements²⁴⁸ and control requirements regarding the installation or use of hazardous materials.²⁴⁹ Altogether, the Hong Kong Convention adds a significant number of obligations for shipowners, which, in turn, will predictably result in an increase in operational costs. With regard to the inventory of hazardous materials, for example, related costs are estimated at EUR 15–50,000 per ship for the first inventory and an additional EUR 5–10,000 per ship every 5 years for its maintenance etc.²⁵⁰

Consequently, flag states are even worse off than recycling states: Whereas the latter's companies are also allowed to provide their services to ships flying the flags of non-party states given that some additional requirements are met,²⁵¹ flag states' shipowning companies are legally bound to exclusively contract with ship recycling companies from states that are party to the Hong Kong Convention. Viewed in the context of further reduced ship recycling capacity, as expected for the period directly after entry-into-force of the Hong Kong Convention, this illustrates even more clearly the structural imbalances in the incentives offered to the two most important groups of actors involved.²⁵² As with the preliminary assessment of these supposed incentives for recycling states, a provisional analysis provides a rather sceptical evaluation for the flag states: Individually as well as collectively, flag states do not face any overwhelming inducements to ratify the Hong Kong Convention.

4. Economic Implications

From an economic perspective focusing on both groups of states individually, at first glance it seems that the Hong Kong Convention will almost certainly not be ratified in due course, and consequently the fulfilment of its entry-into-force criteria will amount to a rather interminable process.

Put into different words: For an individual state, be it either a recycling state or a flag state, there are almost no economic incentives employed in the Hong Kong Convention which could encourage the state to ratify the treaty individually. Even

²⁴⁷ Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention', at 30.

²⁴⁸ Article 12.4 HKC.

²⁴⁹ Regulation 4.1 HKC.

²⁵⁰ For ships already existing these costs are estimated to be several times higher. Altogether, these amounts will present an extra economic burden for shipowners. However, it is nonetheless expected that there will not be any significant impacts on price structure and/or competition due to the higher general daily operating costs of ships concerned; cf. Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention', at 29–30.

²⁵¹ See Article 3.4 HKC.

²⁵² Certainly, this is not a 'level playing field' as hoped for during the drafting deliberations of the Hong Kong Convention.

worse, as long as the vast majority of the other group of states has not ratified and joined, the individual state only benefits from the institutional barriers, such as the non-party provision, of the present situation: Each company would highly benefit from fierce competition between different actors on the demand side regarding the specific service it provides. More precisely, the best scenario for a particular ship recycling state would be to have all major flag states ratify and join the Hong Kong Convention and, at the same time, to have all key recycling states except for the state in question refrain from doing so.²⁵³ In this case, all ships flying the flags of major flag states would be legally bound to adhere to companies of that particular recycling state and global competition between shipowners would consequentially focus on that state. This would, in turn, lead to a blatant increase in market prices as the demand for ship recycling services would dramatically exceed its supply.

For understandable reasons, however, this situation will not evolve. Therefore, every single state will await the actions of not only the key players of the other group, but also the major actors of the group the state belongs to.²⁵⁴ This means that—from a purely economic perspective²⁵⁵—until all major representatives of both groups have ratified the Hong Kong Convention, the individual state faces an incentive not to do anything, i.e. to follow a ‘wait and see’ approach.²⁵⁶ Consequently, the prevailing structure of incentives will lead individual states to delay ratification as long as possible and thus avoid being considerably committed.²⁵⁷

In sum, the reticence created by the stringent entry-into-force provision thus stems back to three different causes: firstly, the division of states with respect to their national economic interests in relation to ship recycling; secondly, the structure of economic incentives employed in the Hong Kong Convention which not only provides powerful short-term disincentives for both recycling states and flag states considering ratification, but also features a structural imbalance that

²⁵³ European Commission, ‘An assessment of the link between the IMO Hong Kong Convention for the safe and environmentally sound recycling of ships, the Basel Convention and the EU waste shipment regulation’, EU-doc. COM(2010) 88, para. 3; in a similar context, see DeSombre, *Flagging Standards* (2006), at 55–68.

²⁵⁴ See Nagarseth, ‘Can the Shipbreakers in India make the Change towards Ship Recyclers?’ (speech delivered at the 2nd Global Ship Recycling Summit, 25 June 2001), at 1–2: “If India goes ahead unilaterally in implementing the improvements, the cost of recycling will go up considerably in relation to other ship recycling countries making such activity uneconomical for India. [...] Therefore, ensuring a level-playing field in the matter of supply of ships to the ship recycling countries is very vital to influence the quality of recycling activity in the respective countries”.

²⁵⁵ In this context, adherence to a purely economic approach means that ecological considerations as well as efforts by political pressure groups – notwithstanding their possible implications and their growing importance especially in international environmental regulation – are not taken into account due to the fact that their impact hardly ever is quantifiable.

²⁵⁶ For a first reference to the ‘wait and see’-attitude, see *supra* chapter “Entry-Into-Force Provision”, B.II (p. 49).

²⁵⁷ In the context of such a dead-lock situation, see the classic example of the pasture open to all, eventually resulting in the devastating assessment: “Freedom in a commons brings ruin to all”, as presented by Hardin, ‘The Tragedy of the Commons’, 162 *Science* 1243 (1968), at 1244.

disadvantages flag states even more than recycling states; and thirdly, the subsequent strong disincentive for every other state involved to ratify the Hong Kong Convention as long as both the key recycling states and the major flag states have not done so.

Obviously, these findings are utterly devastating for the near future of the Hong Kong Convention as well as for other global regulatory measures in the field of ship recycling. On the other hand, a few further implications and explanations may be drawn from the analysis which might help both to understand the situation and to achieve further progress.

Firstly, one has to keep in mind that the implications mentioned above are moderately alleviated by the nature and content of the entry-into-force provision of the Hong Kong Convention. Its requirements attempt to provide for an assured amount of both recycling capacity and shipping tonnage to be available so that there will not be any significant disadvantages from distorted competition. What has looked like an inferior compromise in the deliberations at the Diplomatic Conference in Hong Kong suddenly takes on a more positive hue.

Secondly, the given implications may also serve as an additional explanation for the specific content of the entry-into-force provision as opposed to the entry-into-force requirements of other marine environmental agreements so far concluded and ratified.

And thirdly, the present dead-lock situation is a well-known phenomenon in other branches of social science. As it seems quite obvious that the Hong Kong Convention will probably not enter into force in due course, the implementation of (regional) interim measures becomes more and more important. Their development may therefore benefit from considerations ‘transplanted’ from other disciplines as well.

5. Collective Action and Hegemonic Cooperation

Such a transplant may, for example, be taken from collective action theory.²⁵⁸ This theory is basically concerned with the provision of public goods through the cooperation of several actors, both domestically and at the international level.²⁵⁹ Within the

²⁵⁸ Still, one should keep in mind that there is a significant difference between identifying certain triggers and explanations *ex post* and providing clear-cut instructions and formulas *ex ante*; Keohane, ‘Rational Choice Theory and International Law: Insights and Limitations’, 31 J. Legal Stud. S307 (2002), at S313.

²⁵⁹ See Sandler, *Global Collective Action* (2004), at 19: “The study of collective action investigates the factors that motivate individuals to coordinate their activities to improve their collective well-being”; see also DeSombre, *Flagging Standards* (2006), at 55: “[...] the low standards with which most new open ship registries begin, and that individual shipowners prefer, can be moved upward significantly. This is not an automatic process, but rather one that requires concerted collective action to challenge the economic incentives faced by all involved in the industry to keep costs as low as possible”.

international realm, collective action refers to the process of key actors²⁶⁰ of the international community addressing an ever-growing set of problems which require ‘coordinated efforts’.²⁶¹ Accordingly, collective action theory attempts to assess which parameters promote successful collective action.

Collective action problems have mostly been identified with social/societal problems including ‘market failures’.²⁶² Market failures are—according to Barrett—typically identified with externalities and the under-provision of public goods.²⁶³ In this respect, the term ‘externalities’ is understood as general costs not borne by the entity responsible (as seen from either a causal or a normative perspective), but by society as a whole. Therefore, ‘market failure’ describes a situation which sees specific market instruments within a particular market such as the price mechanism fail to incorporate all pertinent costs incurred.

This understanding of market failures is in the present context furthermore linked to the assumption that “individual rationality is not [always] sufficient for collective rationality.”²⁶⁴ Individually rational is, for example, the economic decision of a shipowner to sell his ships for recycling purposes to a ship recycling facility in Pakistan instead of one in Turkey due to price differentials, notwithstanding the differences in ship recycling standards. Where this individual rationality does in fact lead to an overall inferior outcome,²⁶⁵ and where “incentives for tackling the

²⁶⁰ Notwithstanding the growing importance and influence of non-governmental organisations and other actors at the international stage, in the international (environmental) context, ‘key actors’ still are states; see, e.g., Finus, *Game Theory and International Environmental Cooperation* (2001), at 7; cf. Barrett, ‘An Economic Theory of International Environmental Law’, in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 231, at 237.

²⁶¹ See Sandler, *Global Collective Action* (2004), at xi; see also Brownlie, *Principles of Public International Law*⁷ (2008), at 275: “The increased sophistication in appreciating the risks to the earth’s environment, and the irreversible damage which may be caused by human activity, has resulted in a conscious effort, both by governments acting collectively and also by non-governmental organizations, to invoke legal protection of the environment”.

²⁶² Taylor, *The Possibility of Cooperation* (1987), at 18–19; see also Sandler, *Global Collective Action* (2004), at 46: “Markets fail when self-interested actions of independent agents result in socially inferior outcomes from which a resource reassignment can improve some individuals’ welfare, but not at the expense of other individuals”.

²⁶³ Barrett, ‘An Economic Theory of International Environmental Law’, in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 231, at 239; see also Sandler, *Global Collective Action* (2004), at 46: “Markets fail when self-interested actions of independent agents result in socially inferior outcomes from which a resource reassignment can improve some individuals’ welfare, but not at the expense of other individuals”.

²⁶⁴ Sandler, *Global Collective Action* (2004), at 18; cf. Hardin, ‘The Tragedy of the Commons’, 162 *Science* 1243 (1968), at 1245: “The rational man finds that his share of the cost of the wastes he discharges into the commons is less than the cost of purifying his wastes before releasing them. Since this is true for everyone, we are locked into a system of ‘fouling our own nest,’ so long as we behave only as independent, rational, free-enterprisers”.

²⁶⁵ Taylor, *The Possibility of Cooperation* (1987), at 19.

problems are perverse”,²⁶⁶ scarce resources and potentially conflicting interests have to be coordinated accordingly. From a mere economic perspective, states do usually not face any incentives to tackle environmental and social problems experienced elsewhere. This is why it is necessary to coordinate efforts on a global scale in order to successfully provide answers to international collective action problems.

With particular regard to ship recycling, the term ‘market failure’ thus refers to adverse effects resulting from ship recycling operations on the environment and/or on the health of workers. As market prices for ships to be recycled fail to incorporate these costs through taxes or other mechanisms, they ultimately are borne by society—one way or another. In a nutshell: In the context of ship recycling, market failure results from a failure to internalise externalities, thereby leading to the environmental and social effects depicted earlier.²⁶⁷ These effects furthermore do, in fact, illustrate the under-provision of the public good at stake.

Modern scholarly approaches from the social sciences apply basic principles of collective action theory being attributed basically and essentially to OLSON’s *The Logic of Collective Action*,²⁶⁸ which are then usually complemented²⁶⁹ by game theory.²⁷⁰ These models help to understand the complex strategic settings involving different actors with a variety of preferences that might influence decisions regarding the institutional design or modification of individual instruments.²⁷¹ It is however not the objective of this study to garnish the economic

²⁶⁶ See Sandler, *Global Collective Action* (2004), at 2; as regards the status quo in the field of ship recycling, the incentives are perverse insofar as there are considerable economic incentives, e.g., for European shipowners to sell their ships before they have reached their recycling age in order to circumvent regulation seeking higher standards in this respect; see infra chapter “European Ship Recycling Regulation”, B.II.1.b) (pp. 172 et seq.).

²⁶⁷ See supra chapter “Introduction”, A.II (pp. 18 et seq.); most of the effects described are confined to the territories of just a few states, thereby challenging the international nature of the externalities to some extent.

²⁶⁸ Olson, *The Logic of Collective Action* (1965).

²⁶⁹ Hardin, *Collective Action* (1982), at 23: “The greatest strength of game theory is that it makes the strategic aspects of social interactions explicit, even emphatic.”; for a note on the applicability of collective action theory to states in general, see Sandler, *Collective Action* (2004), at 43; for a somewhat sceptical view, see Hahn/Richards, ‘The Internationalization of Environmental Regulation’, 30 *Harv. Int’l L. J.* 421 (1989), at 429–430.

²⁷⁰ For an illustration of the relevance of the Prisoners’ Dilemma to a real environmental problem, see Barrett, ‘An Economic Theory of International Environmental Law’, in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 231, at 237–241; for variations of the Prisoners’ Dilemma in the legal context, see, e.g., Baird/Gertner/Picker, *Game Theory and the Law* (1994), at 32–34; see also McAdams, ‘Beyond the Prisoners’ Dilemma: Coordination, Game Theory, and Law’, 82 *S. Cal. L. Rev.* 209 (2009), at 214–215; Myerson, ‘Justice, Institutions, and Multiple Equilibria’, 5 *Chi. J. Int’l L.* 91 (2004), at 93.

²⁷¹ Hardin, *Collective Action* (1982), at 155–229; hence, the challenge for international legal scholars is “[...] to devise appropriate legal mechanisms to modify the structure of problematic settings [in order] to improve prospects of cooperation”, Hirsh, ‘Game Theory, International Law, and Future Environmental Cooperation in the Middle East’, 27 *Denv. J. Int’l L. & Pol’y* 75 (1998), at 77–78; again, one should keep in mind as a safeguard that there is a significant difference between identifying certain triggers and explanations *ex post* and providing clear-cut instructions and formulas *ex ante*; Keohane, ‘Rational Choice Theory and International Law: Insights and Limitations’, 31 *J. Legal Stud.* S307 (2002), at S313.

considerations of the previous paragraphs by applying game theory to the ratification situation as presently witnessed by the Hong Kong Convention. Such an approach, notwithstanding possibly offering additional insights to the dead-lock situation described above, unquestionably goes beyond the scope of this analysis. Therefore, while noting the potential significance of game-theoretical modeling with regard to the joint fields of interest of international legal and international relations' scholars in general and to behavioral analyses of strategic decision-making by states in particular, these aspects are omitted here.

Collective action theory has also been particularly noted by legal scholars for the last decades.²⁷² Game theory provides just one additional feature illustrating behaviour in strategic settings. Collective action theory as such has more to offer and does not necessarily depend on game-theoretical modeling.

Fundamental to collective action theory applied to the international sphere is the starting point that "cooperation is possible in anarchy".²⁷³ Quite obviously, as an international legal scholar might add. Still, from an international relations' perspective this is not necessarily the case.²⁷⁴ Therefore, if a particular situation involving, for example, market failure of a global scale—such as the problem of externalities and the related under-provision of public goods we are facing with regard to ship recycling—necessitates concerted action by a number of international states, international institutions such as the IMO in general and the Hong Kong Convention in particular might provide successful frameworks for collective action. If however due to lack of political will or power such an institution is constrained or will not enter into force, if collective action therefore is impossible, a further concept from international relations' literature might prove to be useful: the concept of 'hegemonic cooperation'. According to SNIDAL, this concept "argues that many international issues are problems of public goods provision and are solved when (and only when) there is a dominant actor with sufficient individual incentive to provide unilaterally the good".²⁷⁵ The hegemonic state overcomes collective action

²⁷² For further references, see, e.g., Snidal, 'International political economy approaches to international institutions', in Bhandari/Sykes (eds.), *Economic Dimensions in International Law* (1997), pp. 477–512, and Keohane, 'Rational Choice Theory and International Law: Insights and Limitations', 31 *J. Legal Stud.* S307–S319 (2002).

²⁷³ Snidal, 'International political economy approaches to international institutions', in Bhandari/Sykes (eds.), *Economic Dimensions in International Law* (1997), 477, at 480; see also Snidal, 'The limits of hegemonic stability theory', 39 *Int'l Org.* 579 (1985), at 594: "The result is a need to broaden the realist notion of rationality beyond the simple pursuit of immediate self-interest. States are better characterized by strategic rationality, which takes into account the likely reactions of other states as well as the pursuit of interests across a wide range of issues and through time. These conditions facilitate self-enforcing cooperative agreements since the incentive not to cooperate on a given issue at any point in time must be weighed against the costs inherent in these reactions. In these new circumstances the traditional international anarchy, with its lack of centralized enforcement, need not preclude international collective action".

²⁷⁴ Snidal, 'International political economy approaches to international institutions', in Bhandari/Sykes (eds.), *Economic Dimensions in International Law* (1997), 477, at 486–487.

²⁷⁵ *Ibidem*, at 480–481.

problems. Much of the theory's argument focuses on the assumption that hegemonic states support the solution of collective action problems by providing public goods in order to principally 'further their own self-interests'.²⁷⁶ International order as such is considered the public good which the hegemonic state provides, but:

the dominant power not only provides the good, it is capable of extracting contributions toward the good from subordinate states. In effect, the hegemonic power constitutes a quasi-government by providing public goods *and* taxing other states to pay for them. Subordinate states will be reluctant to be taxed but, because of the hegemonic state's preponderant power, will succumb. Indeed, if they receive net benefits (i.e., a surplus of public good benefits over the contribution extracted from them), they may recognize hegemonic leadership as legitimate and so reinforce its performance and position.²⁷⁷

In the field of international environmental regulation, the European Union can be considered such a hegemonic leader, albeit still learning.²⁷⁸ Traditionally, the theory has been developed in the military context.²⁷⁹ Subsequently, KRASNER has shifted the focus on international trade by arguing that hegemonic states use their influence and their economic capabilities to structure the regional trading system according to their beliefs, preferences, and objectives.²⁸⁰ The EU is active in this respect not only regarding its member states—which would presuppose a slightly different understanding of hegemonic power—but also with regard to, for example, member states of the European Free Trade Association (EFTA) such as Switzerland and states subject to an association agreement with the European Union such as Turkey. Particularly the latter agreement which serves as a basis for later accession to the European Union is an example of how this hegemonic power provides a public good by influencing the trade system, the judiciary, etc. of a sovereign state in order to 'further European self-interest'. Essentially, these examples also support the basic notion that hegemony does not necessarily always work to the advantage of the hegemonic power on the one side and to the disadvantage of the other states on the other side.²⁸¹

There is however the *caveat* that "we cannot simply infer from the presence of a hegemonic actor [...] that the full implications of the theory of hegemonic stability hold."²⁸² This means that the presence of the European Union and its plans for

²⁷⁶ Snidal, 'The limits of hegemonic stability theory', 39 Int'l Org. 579 (1985), at 587 and 612.

²⁷⁷ Ibidem, at 587.

²⁷⁸ See, e.g., Harris, 'Collective Action on Climate Change: The Logic of Regime Failure', 47 Nat. Resources J. 195 (2007), at 222.

²⁷⁹ See, e.g., Gilpin, *War and Change in World Politics* (1981); Sandler/Hartley, 'Economics of Alliances: The Lessons for Collective Action', 39 J. Econ. Lit. 869 (2001), at 893.

²⁸⁰ Krasner, 'State Power and the Structure of International Trade', 28 World Politics 317 (1976), at 322–323; cf. Princen, *EU Regulation and Transatlantic Trade* (2002), at 76.

²⁸¹ Snidal, 'The limits of hegemonic stability theory', 39 Int'l Org. 579 (1985), at 586.

²⁸² Ibidem, at 586; see also Olson/Zeckhauser, 'An Economic Theory of Alliances', 48 Rev. Econ. Stat. 266 (1966), note 19: "Benefits are of course defined in terms of the preferences of the two countries [...]".

unilateral measures in the field of ship recycling as such do not necessarily imply that the noted collective (action) problems will automatically be solved. The ‘theory of hegemonic stability’ just provides an idea of a particular framework, complemented by a suggestion to have a closer look upon the distribution and reception of ‘net benefits’.²⁸³

Notwithstanding these limitations, the concept of ‘hegemonic cooperation’ is in essence furthermore endorsed by a different school of thought from a similar social science background. In 1966, OLSON and ZECKHAUSER have formulated—to a moderate degree based on OLSON’s *The Logic of Collective Action*²⁸⁴ of the previous year—their idea of ‘An Economic Theory of Alliances’.²⁸⁵ Widely reviewed, this idea became the theoretical basis of the ‘exploitation hypothesis’²⁸⁶—an idea which essentially refers to the theory’s “implication that large nations tend to bear disproportionate shares of the burdens of international organization [...]”.²⁸⁷ Applied to the context of this study (i.e. ship recycling regulation), their transplanted line of thinking develops as follows:

Primary purpose of the regulation of ship recycling operations and related industries is, from an economic perspective, as mentioned above, the internalisation of externalities. Due to globalisation and the resulting flexibility with regard to the movement of goods—such as the movement of ships for recycling purposes from literally one end of the world to the other—these externalities, as observed today, are global in their very nature. From a normative perspective, it should thus be in the interest of everyone to have them internalised. Therefore, successful regulatory measures in this respect, i.e., complete internalisation of ship recycling-related externalities, is to be considered a (global) public good²⁸⁸—on an abstract level, not necessarily in the manner suggested by the Hong Kong Convention. Still, it is interesting to note the particular features of such a ‘public good’: It is non-rival and non-excludable.²⁸⁹ The former characteristic means that consumption by one individual does not reduce its overall availability.²⁹⁰ The latter aspect refers to the fact that others cannot be excluded from it.²⁹¹ Against this background, the provision of a public good by individual A automatically results in individuals B, C, and D having the possibility of benefitting from it. Therefore, and this is one of the most-noted implications of OLSON’s already-mentioned earlier concept,

²⁸³ See supra chapter “Entry-Into-Force Provision”, note 277 and accompanying text (p. 92).

²⁸⁴ Olson, *The Logic of Collective Action* (1965).

²⁸⁵ Olson/Zeckhauser, ‘An Economic Theory of Alliances’, 48 *Rev. Econ. Stat.* 266 (1966).

²⁸⁶ Sandler/Hartley, ‘Economics of Alliances: The Lessons for Collective Action’, 39 *J. Econ. Lit.* 869 (2001), at 869.

²⁸⁷ Olson/Zeckhauser, ‘An Economic Theory of Alliances’, 48 *Rev. Econ. Stat.* 266 (1966), at 278.

²⁸⁸ One could also refer to general benefits resulting from international ship recycling regulation; for a general perspective in this regard, see Richter/Furubotn, *Neue Institutionenökonomik*⁴ (2010), at 535.

²⁸⁹ See, e.g., Sandler/Hartley, ‘Economics of Alliances: The Lessons for Collective Action’, 39 *J. Econ. Lit.* 869 (2001), at 871.

²⁹⁰ *Ibidem*, at 871.

²⁹¹ *Ibidem*, at 871.

“the larger the group, the farther it will fall short of providing an optimal amount of a collective good”.²⁹² However, and this has been particularly emphasised in his’ and ZECKHAUSER’s seminal paper on alliances, even in larger groups there might arise a “[...] tendency for the ‘larger’ members [...] to bear a disproportionate share of the burden”²⁹³ in case they “[...] place a higher absolute value on the public good”.²⁹⁴

That ship recycling “is one of the top priorities on the [European] Commission’s agenda”²⁹⁵ has been made perfectly clear at several occasions. Therefore, according to OLSON and ZECKHAUSER this might partly explain why the EU member states’ share of the burden in the provision of this public good is, and will be, disproportionally larger than that of other participating states such as, for example, the United States. If, against the background of this reasoning, the European Union decides to promote and adopt unilateral measures in order to regulate the recycling of ships, additional financial burdens for its member states and their associated industry notwithstanding, this would happen in the knowledge that these additional efforts “[...] can decisively influence world events in their own interest”.²⁹⁶

Without aiming at neglecting the role of international institutions and legally binding treaty frameworks, the European Union could by unilaterally adopting ship recycling measures directly address behaviour within its member states’ territories. Indirectly, the measures might then have implications and repercussions on third states, thereby influencing other states rather in the sense of KRASNER’s ‘international regimes’²⁹⁷ and less in the sense of obligations stipulated by binding international treaties.

Additionally, and with a final reference to OLSON and ZECKHAUSER, a further, rather surprising finding can be found in their alliances’ study of 1966. When they were elaborating on the nature of benefits received by each allied nation, they emphasised that parallel to providing collective benefits to alliance security each nation typically also provides purely domestic and non-collective benefits to itself.²⁹⁸ Therefore, the result that the collective good is merely provided at suboptimal level will be less severe in case the alliance benefit is accompanied by non-collective benefits. And this, in turn, “leads to the paradoxical conclusion that *a decline in the amity, unity, and community of interest among allies need not*

²⁹² Olson, *The Logic of Collective Action* (1965), at 35.

²⁹³ Olson/Zeckhauser, ‘An Economic Theory of Alliances’, 48 *Rev. Econ. Stat.* 266 (1966), at 268.

²⁹⁴ *Ibidem*, at 268.

²⁹⁵ Former European Commissioner for the Environment Stavros Dimas delivering a speech at the European Parliament on ‘Solutions for Responsible Recycling of Ships’ (25 April 2006), <<http://ec.europa.eu/environment/waste/ships/pdf/dimas7461.pdf>> accessed 31 January 2012.

²⁹⁶ Olson/Zeckhauser, ‘An Economic Theory of Alliances’, 48 *Rev. Econ. Stat.* 266 (1966), at 271.

²⁹⁷ According to him, “[i]nternational regimes can be defined as sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors’ expectations converge in a given area of international relations”; see Krasner, ‘Structural causes and regime consequences: regimes as intervening variables’, 36 *Int’l Org.* 185 (1982), at 186.

²⁹⁸ Olson/Zeckhauser, ‘An Economic Theory of Alliances’, 48 *Rev. Econ. Stat.* 266 (1966), at 272 and 279.

necessarily reduce the effectiveness of an alliance, because the decline in these alliance ‘virtues’ produces a greater ratio of private to collective benefits”.²⁹⁹

Coming back to the essence of this study, this leads to the finding that a potential ‘decline’ in the international ship recycling ‘alliance’ as regards the Hong Kong Convention does not necessarily imply a completely negative outcome. As long as future efforts of particular states in the realm of ship recycling also provide non-collective benefits to these actors themselves, and notwithstanding the fact that the degree of international cooperation might be reduced when compared to a situation under a working regulatory umbrella (such as that of the Hong Kong Convention), a situation might still evolve with an even more effective result. The European Union should only pay due regard to also providing non-collective benefits to itself when it adopts particular ship recycling measures.

Therefore, against the background of two related concepts from the social sciences, unilateral measures by the European Union may not only be justified—in the medium term as well as on the longer run, they may also turn out to be perfectly legitimate.

III. Implications for International Ship Recycling Efforts

Aside from these considerations, a few further implications may be deduced from the economic deliberations of this chapter. First of all, every single state should prefer the situation in which every state has ratified the Hong Kong Convention over a situation without a single ratification. Hence, states should develop a common vision of responsibility and responsible behaviour.³⁰⁰ In the given context, this might require some states to compromise with regard to particular issues such as the ‘beaching’ question if these states really want overall progress to be achieved in this respect.³⁰¹ Cooperative efforts at a reduced level may accordingly be more

²⁹⁹ Olson/Zeckhauser, ‘An Economic Theory of Alliances’, 48 Rev. Econ. Stat. 266 (1966), at 272 (emphasis in the original); see also Sandler/Hartley, ‘Economics of Alliances: The Lessons for Collective Action’, 39 J. Econ. Lit. 869 (2001), at 878 and 891.

³⁰⁰ Hardin, ‘The Tragedy of the Commons’, 162 Science 1243 (1968), at 1247: “Responsibility [...] is the product of definite social arrangements. [...] The social arrangements that produce responsibility are arrangements that create coercion, of some sort. [...] The only kind of coercion I recommend is mutual coercion, mutually agreed upon by the majority of the people affected”; for an emphasis on the importance of common interests, see also Seabright, ‘Managing Local Commons: Theoretical Issues in Incentive Design’, 7(4) J. Econ. Perspect. 113 (1993), at 115–117.

³⁰¹ See, e.g., Guzman, *How International Law Works* (2008), at 156: “Each of the variables present in an agreement affects, in one way or another, the payoffs of the parties and for that reason interacts with the other variables. Increasing the cost of a particular action, whether this is done through a change in the substantive provisions or through changes in the form of the agreement, makes that action less likely”; cf. Oxman, ‘The Territorial Temptation: A Siren Song at Sea’, 100 A.J.I.L. 830 (2006), at 851: “Making such a [multilateral regulatory] system work requires some accommodation of substantive preferences to the broader interests in the success of the multilateral process that is the key to stability and ordered change in the law of the sea”.

efficient than unilateral measures in circumstances where no agreement had previously been reached.³⁰² This becomes more and more sensitive an issue if one takes account of the alleged unified front by India, Bangladesh and Pakistan against the Hong Kong Convention.³⁰³

Secondly, and due to the lack of enforcement possibilities in public international law, assurance of other states' behaviour may also be achieved by (bilateral) cooperation and improved transparency.³⁰⁴ Institutional instruments of reciprocity may further facilitate cooperation,³⁰⁵ which would be additionally contributed to by increased contact frequency and repeated negotiations.³⁰⁶

Thirdly, a final reference to collective action theory: According to OLSON, the smaller the group, the higher the incentives usually are for each member of a particular group to become active with regard to the group's general objectives.³⁰⁷ SANDLER subsequently concluded that activities of larger groups do not only lack motivation compared to smaller groups, but typically also lead to less optimum

³⁰² In this context, note, e.g., the audit and certification scheme suggested by the European Maritime Safety Agency (EMSA) which could initially classify the 'beaching' method as roughly equivalent to the lowest rating available; for further information, see *infra* chapter "European Ship Recycling Regulation", B.IV.1 (pp. 195 et seq.).

³⁰³ See 'Recycling at a crossroads', *Fairplay*, 4 March 2010, at 3; for further references, see *supra* chapter "Entry-Into-Force Provision", note 45; see also Sandler/Hartley, 'Economics of Alliances: The Lessons for Collective Action', 39 *J. Econ. Lit.* 869 (2001), at 891: "If the world community initially holds out for too integrated a treaty, none may be ratified. A practical, imperfect treaty may be better than none at all".

³⁰⁴ There are, however, strong indications that regarding a commons problem mere cooperation does not suffice; rather some kind of institutional arrangement for coordination is required; see, e.g., Sandler/Arce, 'Pure Public Goods versus Commons: Benefit-Cost Duality', 79(3) *Land Economics* 355 (2003), at 358.

³⁰⁵ See, e.g., Sugden, 'Reciprocity: the Supply of Public Goods through Voluntary Contributions', 94 *Economic Journal* 772–787 (1984); Elster, 'Rationality, Morality, and Collective Action', 96 *Ethics* 136 (1985), at 146–147; Snidal, 'The limits of hegemonic stability theory', 39 *Int'l Org.* 579 (1985), at 594.

³⁰⁶ Stern Review, 'Part VI – International Collective Action', *The Economics of Climate Change* (2006), at 452; Sandler/Hartley, 'Economics of Alliances: The Lessons for Collective Action', 39 *J. Econ. Lit.* 869 (2001), at 875; for further references, see Redgwell, 'Multilateral Environmental Treaty-Making', in Gowlland-Debbas (ed.), *Multilateral Treaty-Making* (2000), 89, at 90–91.

³⁰⁷ Olson, *Logic of Collective Action* (1965), at 33; for a similar assessment with regard to the management of local common property resources, see Seabright, 'Managing Local Commons: Theoretical Issues in Incentive Design', 7(4) *J. Econ. Perspect.* 113 (1993), at 114: "the main members of the local community are few enough to be known to each other; some of their actions are observable; and consequently they have the ability and sometimes the incentive to build reputations for behaving in certain ways. By contrast, some global commons problems, like global warming, involve billions of us"; see also Sugden, 'Reciprocity: the Supply of Public Goods through Voluntary Contributions', 94 *Economic Journal* 772–787 (1984), at 783: "It is often suggested that small and homogeneous communities are the most effective in inspiring group loyalty and a willingness to act [...]".

social outcomes.³⁰⁸ This idea could serve as a basis for the institutional provision of a specific forum where recycling states or flag states meet, as opposed to a meeting of all global actors generally involved or having an interest in ship recycling.³⁰⁹ Such a forum may be more effective in terms of general identification and commitment of its core members.³¹⁰

And finally, it could be very beneficial if one of the ship recycling actors involved took the lead in ratifying and promoting the Hong Kong Convention.³¹¹ This level of supportive behaviour might then foster ‘hope for efficiency’ related to ship recycling regulation.³¹² It might even create a pertinent ‘focal point’, thus facilitating the solution of the depicted coordination problem by clearly pointing out to a possible prominent and/or conspicuous road map.³¹³

To have an individual ship recycling state instead of a flag state proceed in this matter might however be a more realistic and promising approach as the recycling states are—as mentioned above—even less induced to act favourably.³¹⁴ On the other hand, if one of the major flag states decided to take the lead in this respect, such a first move might itself be an inducement for recycling states to join as well.³¹⁵ For this particular reason, and for the considerations based on collective action theory and related concepts, it actually is of fundamental importance to pay due regard to European interim measures in the field of ship recycling. In spite of comprising a genuine ‘European flag’, binding European regulation eventually obliges all merchant ships under flags of EU member states alike. If, by regulation, the exact content of the Hong Kong Convention is transposed into binding European legislation, then the combined European merchant fleet comprising almost 20 % of the world’s merchant fleet tonnage³¹⁶ would be in line with the Hong Kong

³⁰⁸ See Sandler, *Global Collective Action* (2004), at 32–34; see also Hahn/Richards, ‘The Internationalization of Environmental Regulation’, 30 *Harv. Int’l L. J.* 421 (1989), at 433–437.

³⁰⁹ See, e.g., Carraro/Siniscalco, ‘The international dimension of environmental policy’, 36 *Eur. Econ. Rev.* 379 (1992), at 385–386.

³¹⁰ These considerations may also be relevant for the establishment of future compliance mechanisms for the Hong Kong Convention.

³¹¹ See Sandler, *Global Collective Action* (2004), at 9 and 27; see also Gächter, ‘Conditional cooperation: Behavioral regularities from the lab and the field and their policy implications’, in Frey/Stutzer (eds.), *Economics and Psychology* (2007), 19, at 40: “Leaders are ‘belief managers’ among other things. Leading by example strongly shapes beliefs about what others are doing [...]”; maybe the early ratification of the Hong Kong Convention by Turkey can be partially explained against this background.

³¹² See Sandler/Arce, ‘Pure Public Goods versus Commons: Benefit-Cost Duality’, 79(3) *Land Economics* 355 (2003), at 358–359 and 365.

³¹³ See Schelling, *The Strategy of Conflict* (1970), at 57–58.

³¹⁴ Due to the ‘exploitation hypothesis’ mentioned above (see *supra* chapter “Entry-Into-Force Provision”, note 286 and accompanying text, p. 93), in the present context the lead should preferably be taken by one of the larger, key ship recycling states.

³¹⁵ Still, an evaluation of the given situation with regard to a typical first-mover advantage remains sceptical.

³¹⁶ See *supra* chapter “Entry-Into-Force Provision”, B.II (p. 49).

Convention,³¹⁷ thus providing a substantial incentive for ship recycling states to eventually re-consider their position. And this, in turn, might then induce other major flag states to act accordingly. Additionally, as experienced in recent years,³¹⁸ unilateral action by the European Union might induce the IMO to maximise its efforts to achieve progress in the field of ship recycling regulation.³¹⁹ It is therefore particularly worth noting whether and which interim measures will be enacted by the European Union.

E. Findings

From an interpretive and construing perspective, the inclusion of a third element into the entry-into-force provision is a rather novel development given the specific environment of ship recycling. While each of the three requirements is reasonable *eo ipso* and therefore makes perfect sense, a combination of the three may pose a problem and may, as such, be the key obstacle preventing the entry-into-force of the Hong Kong Convention for a considerable amount of time. Additionally, a further look at the economic side of the issue clearly shows the institutional imbalances of the Hong Kong Convention. This economic incentives' structure and the nature of the interests involved make it therefore rather improbable that the Hong Kong

³¹⁷ For obvious reasons, however, the regulation of ship recycling activities by the European Union will result in further flagging-out of ships which used to fly the flags of EU member states. This, in turn, might intensify the problem as such because a high percentage of these ships will probably be registered with flags of convenience, whose shipping standards are, with certain exceptions, on average, lower than those of EU member states. This implication may furthermore mitigate and dilute the persuasive power of potential benefits for ship recycling states with regard to ship recycling demand of European shipowners. Still, such negative implications to a vast degree depend on the amount of ships to be flagged out. Until then, cautious optimism is deemed appropriate. Nevertheless, it should be mentioned that, in the past, "the EU has generally avoided rules that may place Member States' own fleets or administrations at a commercial disadvantage and contribute to flagging out from EU Member States"; see Ringbom, *The EU Maritime Safety Policy and International Law* (2008), at 172.

³¹⁸ With particular regard to unilateral European Union measures in the aftermath of the Erika and Prestige accidents and their implications on IMO efforts, see Frank, *The European Community and Marine Environmental Protection in the International Law of the Sea* (2007), at 240; see also European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 5.1: "If the EU [...] takes action, in compliance with the provisions of the Ship Recycling Convention, this would carry weight in the international arena and could speed up the entry into force of the Convention. Experience with IMO conventions such as MARPOL and AFS has shown that third countries frequently ratify and implement an international agreement after the EU has made its rules binding for all ships within European waters".

³¹⁹ See, e.g., Molenaar, 'Port State Jurisdiction: Toward Comprehensive, Mandatory and Global Coverage', 38 *Ocean Dev. & Int'l L.* 225 (2007), at 226; see also Graf Vitzthum, 'Schiffssicherheit: Die EG als potentieller Durchsetzungsdegen der IMO', 62 *ZaöRV* 163–182 (2002).

Convention will actually enter into force in due course, as things currently stand.³²⁰ Ideas to proceed further on include preliminary compromises with regard to crucial issues such as the beaching procedure, the intensifying of bilateral cooperation as well as the establishment of certain fora for recycling states and flag states, respectively. Against the background of these findings and their implications, and with a view to OLSON's fundamental ideas upon which the concepts of hegemony and alliances have been based, it is particularly worthwhile to institutionally facilitate a common vision of responsibility implementing a rather value-oriented approach, and therefore to foster European interim measures in the field of ship recycling.

³²⁰ According to Puthucherril, *From Shipbreaking to Sustainable Ship Recycling* (2010), at 182, the Hong Kong Convention simply "comes too late in the day".

European Ship Recycling Regulation

In the following chapter, the focus of the analysis is shifted from the international to the European sphere. Against the background of the entry-into-force provision and, in particular, its specific implications for binding ship recycling regulation at the international level, there have been certain indications that actions by particularly important maritime players may change the overall strategic setting in this field. Ratification and implementation as well as complementary initiatives by particular actors might therefore provide economic and/or strategic incentives for other states to act as well.

In order to conduct a thorough analysis of European initiatives with a view to ship recycling regulation, the first part of this chapter will illustrate the relevant international legal framework (A.) before the second part assesses and evaluates a number of measures suggested at the EU level, giving slight preference to better enforcement, the *modus vivendi* of transposition, and further complementary measures (B.).

A. International Legal Framework

A number of related international instruments frame the regulation in the field of ship recycling. Principally, these instruments can be categorised into two distinctive groups: such generally aiming at the protection of the marine environment, and such regulating transport and/or processing of waste. In each case, it is important to note that these instruments provide instances of environmental protection by standard-setting, some of which are non-binding at all, some of which are only binding on states, and some of which also have direct legal effects on the European

Union as such.¹ Multilateral environmental agreements to which the EU is a party have often been the basis upon which the European Union has enacted legislation.²

Unilateral or regional measures in the field of ship recycling have to pay due regard to the legal limits set by public international law. Especially the territorial sovereignty of states has to be respected. The extent to which all these instances and instruments provide guidance and/or limitations for European ship recycling initiatives will be described in the following sections.

I. 1982 UNCLOS

1. Objectives and Scope

The *1982 United Nations Convention on the Law of the Sea (UNCLOS)*³ establishes for its states parties⁴ an overarching framework of rights and obligations relating to maritime affairs⁵ whose provisions on the protection of the marine environment (Part XII), according to many states, reflect rules of international customary law.⁶ The convention's overall significance is explicitly recognised by the Hong Kong Convention.⁷ As stipulated by the preamble of UNCLOS, its objective is to establish

through this Convention, with due regard for the sovereignty of all States, a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their

¹ Wessel/Wouters, 'The Phenomenon of Multilevel Regulation: Interactions between Global, EU and National Regulatory Spheres', in Follesdal/Wessel/Wouters (eds.), *Multilevel Regulation and the EU: the Interplay between Global, European and National Legal Processes* (2008), 9, at 20.

² Ibidem, at 21; see, e.g., Ebbesson, 'Implementing and Enforcing the Baltic Sea Convention Through European Community Law', in Führ/Wahl/von Wilmowsky (eds.), *Umweltrecht und Umweltwissenschaft – FS Rehinder* (2007), 693, at 697–699; sometimes, the European Union has even taken international 'soft law' such as the Paris MoU as basis for the adoption of binding regulation; see Treves, 'Law of the Sea', *M.P.E.P.I.L.* (April 2011, online), para. 70.

³ United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994).

⁴ With the exception of the United States, most states are parties to UNCLOS; for further details, see the homepage of the United Nations Treaty Collection, <<http://treaties.un.org/>> accessed 31 January 2012; by Council Decision 98/392/EC of 23 March 1998 the European Union became party.

⁵ Anderson, 'The Roles of Flag States, Port States, Coastal States and International Organisations in the Enforcement of International Rules and Standards Governing the Safety of Navigation and the Prevention of Pollution from Ships under the UN Convention on the Law of the Sea and other International Agreements', 2 *Sing. J. Int'l & Comp. L.* 557 (1998), at 558: "The framework is firm over basic principles, rights and duties, as well as matters such as the limits of national jurisdiction, yet flexible enough to allow for new developments, elaborations and clarifications through new instruments".

⁶ See Sands, *Principles of International Environmental Law*² (2003), at 396.

⁷ Article 15.1 HKC.

resources, the conservation of their living resources, and the study, protection and preservation of the marine environment.

Pursuant to these guiding considerations, UNCLOS provides a form of constitutional framework for the oceans⁸ focussing on the role of sovereign states within and towards the marine environment with the main objective of preserving sustainability. The fact that UNCLOS is a framework convention means that it has to be filled with substance by other instruments, both regionally and globally.⁹ According to OXMAN, it is a “significant aspect of these provisions [...] that they are self-adjusting”.¹⁰ This does not only refer to the inherent necessity that various UNCLOS provisions have to be filled with substance, but also to the fact that the regime thereby dynamically evolves with the relevant standards.¹¹ More precisely, UNCLOS does not specify the content of the obligations it stipulates in detail but leaves this task to other international instruments.¹² Accordingly, UNCLOS just provides a legal frame which has to be accentuated by states cooperating at the international stage.¹³ Where there are conflicts or overlaps between UNCLOS and other international instruments, specific obligations assumed by states under the latter “should be carried out in a manner consistent with the general principles and objectives” of the former.¹⁴ Therefore, European Union measures aiming at regulating ship recycling procedures will have to be consistent with both the jurisdictional and environmental framework as established by UNCLOS and shaped by subsequent practice.

⁸ Resolution 2: ‘Plan of Implementation of the World Summit on Sustainable Development’ (4 September 2002), UN-doc. A/CONF.199/20, para. 30(a); according to the conflict clause as stipulated in Article 15.1 HKC, UNCLOS and customary international law prevail. This indicates that the Hong Kong Convention can validly be considered “part of the larger framework of the ‘constitution of the oceans’”; see Matz-Lück, ‘Safe and Sound Scrapping of “Rusty Buckets”? The 2009 Hong Kong Ship Recycling Convention’, 19 *RECIEL* 95 (2010), at 102.

⁹ For further information on framework conventions, see, e.g., Sands, *Principles of International Environmental Law*² (2003), at 406–408; UNEP, ‘Legal Aspects of the Full and Partial Dismantling of Ships’, UN-doc. UNEP/CHW.6/17, at 15; see also Matz-Lück, ‘Safe and Sound Scrapping of “Rusty Buckets”? The 2009 Hong Kong Ship Recycling Convention’, 19 *RECIEL* 95 (2010), at 99–100.

¹⁰ Oxman, ‘The Territorial Temptation: A Siren Song at Sea’, 100 *A.J.I.L.* 830 (2006), at 843.

¹¹ *Ibidem*, at 338.

¹² For further information on references within UNCLOS to ‘applicable’ and ‘generally accepted’ international rules and standards, see *infra* chapter “European Ship Recycling Regulation”, A.I.3. d) (pp. 118 et seq.).

¹³ In general, see Wolfrum, ‘IMO Interface with the Law of the Sea Convention’, in Nordquist/Moore (eds.), *Current Maritime Issues and the International Maritime Organization* (1999), 223, at 229–230.

¹⁴ Articles 237 and 311 UNCLOS.

2. Concept of Maritime Jurisdiction

According to OXMAN, “[t]he term jurisdiction is most often used to describe the lawful power of a State to define and enforce the rights and duties, and control the conduct, of natural and juridical persons”.¹⁵ Initially, this power derives from the concept of sovereignty.¹⁶ Hence, a state may, in principle, exercise jurisdiction upon all persons, property and activities within its territory (‘territoriality principle’) as well as upon its national citizens¹⁷ irrespective of their current location (‘personality principle’).¹⁸ In the maritime context, territorial jurisdiction therefore refers to jurisdiction over land territory, internal and archipelagic waters, the territorial sea, and the sea-bed as well as its subsoil.¹⁹

However, different needs create different regimes. The number of ships moving between the territories of states and sometimes also crossing the high seas, i.e. going beyond the territory of any state, compounded by the fact that persons on-board ships are often multi-nationals, made it necessary that these fundamental bases of jurisdiction be augmented.²⁰ Accordingly, with the establishment of flag state jurisdiction a complementary principle of extra-territorial jurisdiction emerged²¹ which provides a “legal mechanism enabling and obliging flag States

¹⁵ Oxman, ‘Jurisdiction of States’, in Wolfrum (ed.), M.P.E.P.I.L. (November 2007, online), para. 3.

¹⁶ Mann, ‘The Doctrine of Jurisdiction in International Law’, 111 RdC 1 (1964), at 15–17; for a less certain account, see *ibidem*, ‘The Doctrine of International Jurisdiction Revisited after Twenty Years’, 186 RdC 9 (1984), at 20: “International jurisdiction is an aspect or an ingredient or a consequence of sovereignty”; see also PCIJ, *Case of S.S. ‘Lotus’ (France v. Turkey)*, Ser. A – No. 10, Judgment No. 9, 7 September 1927, at 18–19.

¹⁷ See, e.g., ICJ, *Nottebohm Case* (Liechtenstein v. Guatemala), ICJ Reports 1955, at 4.

¹⁸ Oxman, ‘Jurisdiction of States’, in Wolfrum (ed.), M.P.E.P.I.L. (November 2007, online), paras. 13 and 18 accordingly, jurisdiction under the personality principle comprises prescription and/or enforcement beyond the state’s territory, i.e. extra-territorial; see also Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (1998), at 80; whilst not uncontested as to their categorisation as ‘extra-territorial’, other notions allowing for extra-territorial jurisdiction such as the ‘impact principle’, the ‘protection principle’ and the ‘universality principle’ are not relevant in this context.

¹⁹ See Oxman, ‘Jurisdiction of States’, in Wolfrum (ed.), M.P.E.P.I.L. (November 2007, online), para. 13; Brownlie, *Principles of Public International Law*⁷ (2008), at 115–117; Shaw, *International Law*⁶ (2008), at 556–568; typically, the air space superjacent to the areas specified is also included in similar enumerations which however is not too relevant in the maritime and/or ship recycling context.

²⁰ Oxman, ‘Jurisdiction of States’, in Wolfrum (ed.), M.P.E.P.I.L. (November 2007, online), paras. 29–30.

²¹ At the same time, the doctrinal basis of flag state jurisdiction has still not been unanimously agreed upon. Whereas some scholars extend the scope of application of the ‘nationality principle’ also to ships, i.e. the competence of a particular state to exercise jurisdiction over its citizens due to the genuine bond of nationality, a rather traditional view considers ships as floating territorial units in order to apply ‘quasi-territorial’ jurisdiction. A third theory regards flag state jurisdiction merely as functional extensions of territorial jurisdiction; see Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (1998), at 83–84, 95; Bodansky, ‘Protecting the Marine Environment from Vessel-Source Pollution: UNCLOS III and Beyond’, 18 *Ecology L.Q.* 719 (1991), at 736; see also Jacobsson, ‘Flag State Perspectives’, in Nordquist/Moore/Mahmoudi (eds.), *The Stockholm Declaration and Law of the Marine Environment* (2003), 299, at 301; Gavouneli, *Functional Jurisdiction in the Law of the Sea* (2007), at 34; Núñez-Müller, *Die Staatszugehörigkeit von Handelsschiffen im Völkerrecht* (1994), at 82–84.

to establish and maintain the public order of the oceans, and to regulate the uses of the sea in accordance with international law”.²² The concept of flag state jurisdiction has also become well-founded in international law,²³ and is enshrined in rules such as Articles 91, 92 and 94 UNCLOS which link ships to particular states and list the relevant authorities and responsibilities.²⁴ More precisely, a state is obliged to ensure that ships flying its flag are seaworthy, well constructed and equipped, and that the organisation of both staffing and labour conditions is consistent with the regulations of a number of international instruments.²⁵ Hence, UNCLOS obliges flag states to enforce all relevant rules and standards as follows:

1. States shall ensure compliance by vessels flying their flag or of their registry with applicable international rules and standards, established through the competent international organization or general diplomatic conference, and with their laws and regulations adopted in accordance with this Convention for the prevention, reduction and control of pollution of the marine environment from vessels and shall accordingly adopt laws and regulations and take other measures necessary for their implementation. Flag States shall provide for the effective enforcement of such rules, standards, laws and regulations, irrespective of where a violation occurs.
2. States shall, in particular, take appropriate measures in order to ensure that vessels flying their flag or of their registry are prohibited from sailing, until they can proceed to sea in compliance with the requirements of the international rules and standards referred to in paragraph 1, including requirements in respect of design, construction, equipment and manning of vessels.²⁶

Accordingly, there are different layers of compliance control: By exercising enforcement jurisdiction upon ships flying their flag or of their registry, i.e. by controlling and enforcing compliance with a number of specified international regulatory instruments and related standards, flag states themselves comply with their respective obligations under UNCLOS.²⁷

²² König, ‘Flag of Ships’, in Wolfrum (ed.), M.P.E.P.I.L. (April 2009, online), para. 18.

²³ Besides flag state jurisdiction, the exercise of rights within the Exclusive Economic Zone (EEZ) is another obvious example for the concept of extra-territorial jurisdiction; nevertheless, activities in the EEZ are not of particular relevance in the context of ship recycling; Oxman, ‘Jurisdiction of States’, in Wolfrum (ed.), M.P.E.P.I.L. (November 2007, online), para. 14.

²⁴ Functions of the link are three-fold: “[I]t indicates which State is permitted under international law to exercise its jurisdiction and control over the vessel; which State is obliged to implement the duties listed in Art. 94 UN Convention on the Law of the Sea and enforce national and international safety, labour, and environmental protection standards vis-à-vis the vessel; and which State is entitled to render diplomatic protection for the vessel and its crew”; König, ‘Flag of Ships’, in Wolfrum (ed.), M.P.E.P.I.L. (April 2009, online), para. 16.

²⁵ Article 94.3 UNCLOS; for a more detailed list in this regard, see the report of the UN Secretary-General on the work of the ‘Consultative Group on Flag State Implementation’ (5 March 2004), UN-doc. A/59/63, at 64–130.

²⁶ Article 217.1–217.2 UNCLOS.

²⁷ Wolfrum, ‘IMO Interface with the Law of the Sea Convention’, in Nordquist/Moore (eds.), *Current Maritime Issues and the International Maritime Organization* (1999), 223, at 233.

As with the nationality of natural persons,²⁸ international law utilises the concept of a 'genuine link'²⁹ for such a relationship.³⁰ In contrast to natural persons, however, a ship can only have one nationality, being that of the state in which the ship is registered.³¹ Eventually, the requirement of a 'genuine link' has become more and more theoretical and insignificant in practice³² both resulting from and, at the same time, facilitating the growing importance of 'flags of convenience'.³³ Parallel to this development, and to some degree resulting from it, compliance by

²⁸ For further information on the origins of the 'genuine link' concept, see ICJ, *Nottebohm Case (Liechtenstein v. Guatemala)* (second phase), Judgment of 6 April 1955, ICJ Reports 1955, 4, at 20–24 and 26.

²⁹ For further information on the historical development of the 'genuine link' concept in maritime affairs, see König, 'Flag of Ships', in Wolfrum (ed.), M.P.E.P.I.L. (April 2009, online), paras. 6–15; Pamborides, *International Shipping Law* (1999), at 2–5; Brownlie, *Principles of Public International Law*⁷ (2008), at 422–425; Jennings, 'General Course on Principles of International Law', 121 RdC 323 (1967-II), at 460–463.

³⁰ Article 91.1 UNCLOS; see also Jacobsson, 'Flag State Perspectives', in Nordquist/Moore/Mahmoudi (eds.), *The Stockholm Declaration and Law of the Marine Environment* (2003), 299, at 301–302.

³¹ Articles 91 and 92 UNCLOS; ECJ, Case C-286/90, *Anklagemyndigheden v Peter Michael Poulsen and Diva Navigation Corp.* [24 November 1992], para. 13; an exception to this rule is the currently wide-spread practice of bareboat chartering.

³² In this context, see, e.g., ITLOS, *M/V 'Saiga' (No. 2) Case*, Judgment of 1 July 1999, 38 I.L.M. 1323 (1999); Jacobsson, 'Flag State Perspectives', in Nordquist/Moore/Mahmoudi (eds.), *The Stockholm Declaration and Law of the Marine Environment* (2003), 299, at 301–302; Hill, *Maritime Law*⁶ (2003), at 20–21; Behnam, 'Ending Flag State Control?', in Kirchner (ed.), *International Marine Environmental Law* (2003), 123, at 126–127; for further information on the renewed discussion on the role of the 'genuine link', see König, 'Flag of Ships', in Wolfrum (ed.), M.P.E.P.I.L. (April 2009, online), paras. 55–56; Treves, 'Flags of Convenience Before the Law of the Sea Tribunal', 6 San Diego Int'l L. J. 179 (2004), at 189; Coles/Ready, *Ship Registration: Law and Practice* (2002), at 13.

³³ According to the 'Rochdale Report' by the Committee of Inquiry into Shipping (1970), as quoted by Ready, *Ship Registration*³ (1998), at 18, 'flags of convenience' are typically characterised by the following features: (i) the country of registry allows ownership and/or control of its merchant vessels by non-citizens; (ii) access to the registry is easy and transfer from the registry at the owner's option is not restricted; (iii) taxes on the income from the ships are not levied locally, or are very low; a registry fee and an annual fee, based on tonnage, are normally the only charges made; (iv) the country of registry is a small power with no national requirement under any foreseeable circumstances for all the shipping registered, but receipts from very small charges on a large tonnage may produce a substantial effect on its national income; (v) manning of ships by non-nationals is freely permitted; and (vi) the country of registry has neither the power nor the administrative machinery effectively to impose any government or international regulations; nor has the country even the wish to consult the companies themselves; see *ibidem*, at 17–20; König, *Durchsetzung internationaler Bestands- und Umweltschutzvorschriften auf Hoher See im Interesse der Staatengemeinschaft* (1990), at 73–74; Hayashi, 'Toward the Elimination of Sub-standard Shipping – The Report of the International Commission on Shipping', 16 Int'l J. Marine & Coastal L. 501–513 (2001); DeSombre, *Flagging Standards* (2006), at 68–86; Behnam, 'Ending Flag State Control?', in Kirchner (ed.), *International Marine Environmental Law* (2003), 123, at 133.

flag states has proven considerably inadequate over the years.³⁴ Therefore, the focus has turned to complementary enforcement mechanisms, leading to the increased emphasis on port state jurisdiction³⁵ and the emergence³⁶ of regional agreements such as the *Paris Memorandum of Understanding on Port State Control* (*Paris MoU*).³⁷ These regimes were established to enhance compliance of ships flying the flag or under authority of foreign states with international standards “by means of commitments by port authorities to carry out inspections and to take predominantly corrective enforcement action”.³⁸ This elevated the importance of port state jurisdiction which has been mitigating flag state jurisdiction,³⁹ thereby challenging the exclusivity of flag state jurisdiction.⁴⁰

Hence, international law in general, and UNCLOS in particular, have states acting in three different but related capacities: as port state, coastal state,

³⁴ Molenaar, ‘Port State Jurisdiction’, in Wolfrum (ed.), M.P.E.P.I.L. (August 2009, online), para. 6; efforts to stop the tendency of ‘flagging out’ ships for tax or labour costs’ reasons such as the establishment of a number of subsidiary registers employing certain economic incentives have proven not to be too successful; see König, ‘Flags of Convenience’, in Wolfrum (ed.), M.P.E.P.I.L. (November 2008, online), paras. 4–7, 24; de la Fayette, ‘The Marine Environment Protection Committee: The Conjunction of the Law of the Sea and International Environmental Law’, 16 Int’l J. Marine & Coastal L. 155 (2001), at 223–226; Behnam, ‘Ending Flag State Control?’, in Kirchner (ed.), International Marine Environmental Law (2003), 123, at 127–129.

³⁵ Wolfrum, ‘IMO Interface with the Law of the Sea Convention’, in Nordquist/Moore (eds.), Current Maritime Issues and the International Maritime Organization (1999), 223, at 233: “[P]ort States are to be considered as enforcement mechanisms in respect of IMO regulations”; Molenaar, ‘Port State Jurisdiction’, in Wolfrum (ed.), M.P.E.P.I.L. (November 2009, online), para. 31; Anderson, ‘The Roles of Flag States, Port States, Coastal States and International Organisations in the Enforcement of International Rules and Standards Governing the Safety of Navigation and the Prevention of Pollution from Ships under the UN Convention on the Law of the Sea and other International Agreements’, 2 Sing. J. Int’l & Comp. L. 557 (1998), at 565–572.

³⁶ For further information in this respect, see König, ‘Port State Control: An Assessment of European Practice’, in Ehlers/Mann-Borgese/Wolfrum (eds.), Marine Issues (2002), 37, at 39–45.

³⁷ Paris Memorandum of Understanding on Port State Control (adopted 26 January 1982, entered into force 1 July 1982); for further information in this respect, see Lagoni, ‘Ports’, in Wolfrum (ed.), M.P.E.P.I.L. (April 2011, online), paras. 21–22 and 45.

³⁸ Molenaar, ‘Port State Jurisdiction: Toward Comprehensive, Mandatory and Global Coverage’, 38 Ocean Dev. & Int’l L. 225 (2007), at 227.

³⁹ See König, *Durchsetzung internationaler Bestands- und Umweltschutzvorschriften auf Hoher See im Interesse der Staatengemeinschaft* (1990), at 242–244; for this reason, a number of scholars perceive the legal basis for port state jurisdiction in Article 218 UNCLOS, as shaped by subsequent IMO regulations, and not in the territoriality principle; cf. Jacobsson, ‘Flag State Perspectives’, in Nordquist/Moore/Mahmoudi (eds.), *The Stockholm Declaration and Law of the Marine Environment* (2003), 299, at 305–306; Blanco-Bazán, ‘The Environmental UNCLOS and the Work of IMO in the Field of Prevention of Pollution from Vessels’, in Kirchner (ed.), *International Marine Environmental Law* (2003), 31, 39–40; Wolfrum, ‘IMO Interface with the Law of the Sea Convention’, in Nordquist/Moore (eds.), *Current Maritime Issues and the International Maritime Organization* (1999), 223, at 233; cf. Molenaar, ‘Port State Jurisdiction’, in Wolfrum (ed.), M.P.E.P.I.L. (November 2009, online), paras. 14–22.

⁴⁰ Ringbom, *The EU Maritime Safety Policy and International Law* (2008), at 167.

and flag state.⁴¹ An illustration of the functional differences between these categories helps to understand which provisions are most relevant when it comes to European regulation of ship recycling: In principle, port state jurisdiction refers to in-port enforcement of provisions which attempt to prevent violations beyond the maritime zones of a particular state⁴²; coastal state enforcement, on the other hand, primarily deals with violations within the maritime zones of the respective coastal states⁴³; flag state jurisdiction effectively mirrors these types of enforcement as flag states are first and foremost responsible for ensuring compliance with national and international binding regulation⁴⁴ and for enforcing any violations.⁴⁵ Accordingly, in the present context only those provisions may be relevant which address flag states and/or port states. Due to lacking critical ship recycling operations within the territories of EU member states, provisions addressing coastal states will be omitted here—in spite of approximately 70.000 km of European coastline.⁴⁶ Furthermore, it should be kept in mind that the principal obligations are those regulating flag states' behaviour while port state jurisdiction is primarily aimed at correcting non-compliance of flag states.⁴⁷

Being a party to UNCLOS,⁴⁸ the jurisdictional framework established under UNCLOS has binding effects on the European Union. The relevance of flag state jurisdiction in the context of EU ship recycling initiatives follows from the fact that almost 20 % of the world's sea-going merchant fleet is flying the flags of EU member states.⁴⁹ Flag state obligations could therefore provide the first pillar of EU regulatory measures in this context.

⁴¹ In a different context, it might be reasonable to only differentiate between coastal state jurisdiction on the one side, and flag state control on the other; with specific regard to the issue of ship recycling, however, it is perfectly sound to also focus on the differences between coastal state jurisdiction and port state control; see Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (1998), at 94 and 106; Jacobsson, 'Flag State Perspectives', in Nordquist/Moore/Mahmoudi (eds.), *The Stockholm Declaration and Law of the Marine Environment* (2003), 299, at 305–306.

⁴² Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (1998), at 93.

⁴³ See Articles 73, 210.1–.3 UNCLOS; see also Nelson, 'Maritime Jurisdiction', in Wolfrum (ed.), *M.P.E.P.I.L.* (January 2010, online), para. 47; Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (1998), at 93.

⁴⁴ See, e.g., Article 211.2 UNCLOS.

⁴⁵ Article 217(1) UNCLOS; Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (1998), at 97.

⁴⁶ European Commission, 'An Integrated Maritime Policy for the European Union', EU-doc. COM(2007) 575, para. 2.

⁴⁷ See Jacobsson, 'Flag State Perspectives', in Nordquist/Moore/Mahmoudi (eds.), *The Stockholm Declaration and Law of the Marine Environment* (2003), 299, at 305–306; Blanco-Bazán, 'The Environmental UNCLOS and the Work of IMO in the Field of Prevention of Pollution from Vessels', in Kirchner (ed.), *International Marine Environmental Law* (2003), 31, 39–40; Molenaar, 'Port State Jurisdiction', in Wolfrum (ed.), *M.P.E.P.I.L.* (August 2009, online), para. 3.

⁴⁸ See *supra* chapter "European Ship Recycling Regulation", note 4.

⁴⁹ See *supra* chapter "Entry-Into-Force Provision", B.II (p. 49).

Port state jurisdiction might provide another important pillar of the EU regime. Particularly such rules which are applicable to ships regardless of their flag or registry may however be disputed.⁵⁰ In this context, it is important to acknowledge the difficulties resulting from extraterritorial implications of such regulatory measures by the European Union. There have been a few cases in the past,⁵¹ the most noted one of which probably was the early implementation of the 2001 AFS Convention⁵² within the European Union by Regulation (EC) No 782/2003.⁵³ Its principal objective was to prohibit the application of organotin compounds which act as biocides in anti-fouling systems on ships.⁵⁴ While initially being only applicable to ships flying the flag of member states or operating under the authority of member states,⁵⁵ the EU regulation's prohibition was formulated to also apply to all other ships after a fixed interim period, irrespective of the actual entry-into-force of the 2001 AFS Convention.⁵⁶ From a legal perspective, this raises the question whether a European Union measure may, by implementing an international convention which has not yet become legally binding, impose particular obligations also on third states which subsequently are to be enforced by EU member states' ports. Except for the fact that various international soft law measures encouraged early implementation of the 2001 AFS Convention, there have not been any attempts to explain the legal jurisdictional basis upon which this type of European Union regulation was established.⁵⁷ To sort out these kinds of dilemma, RINGBOM proposes that a

middle way [...] could therefore be that the prescriptive jurisdiction to regulate the extraterritorial conduct of foreign ships may extend beyond the regime provided for in UNCLOS, to the extent that the basis for those jurisdictional bases may be identified under the principles of jurisdiction under general international law.⁵⁸

Besides provisions in international treaties (e.g., Articles 25.2 and 211.3 UNCLOS), the universality principle and actual effects by the behaviour to be regulated on the port state, 'interests of the international community' are considered legitimate justifications of prescriptive jurisdiction in this context.⁵⁹ Enforcement

⁵⁰ See, e.g., Graf Vitzthum, 'Schiffssicherheit: Die EG als potentieller Durchsetzungsdegen der IMO', 62 ZaöRV 163 (2002), at 178.

⁵¹ For further references, see Ringbom, *The EU Maritime Safety Policy and International Law* (2008), at 245–250.

⁵² 2001 International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS Convention) (adopted 5 October 2001, entered into force 17 September 2008).

⁵³ Regulation (EC) No 782/2003 of the European Parliament and of the Council of 14 April 2003 on the prohibition of organotin compounds on ships.

⁵⁴ Article 4 of Regulation (EC) No 782/2003.

⁵⁵ Article 4 of Regulation (EC) No 782/2003.

⁵⁶ Article 5 para. 2 of Regulation (EC) No 782/2003.

⁵⁷ Ringbom, *The EU Maritime Safety Policy and International Law* (2008), at 249.

⁵⁸ Ringbom, *The EU Maritime Safety Policy and International Law* (2008), at 362.

⁵⁹ Molenaar, 'Port State Jurisdiction: Toward Comprehensive, Mandatory and Global Coverage', 38 *Ocean Dev. & Int'l L.* 225 (2007), at 229; König, 'Port State Control: An Assessment of European Practice', in Ehlers/Mann-Borgese/Wolfrum (eds.), *Marine Issues* (2002), 37, at 38; cf.

jurisdiction, on the other hand, would still be harder to legitimise. In the end, present (reluctant) state practice might though be “motivated by considerations of policy rather than by *opinio iuris*”.⁶⁰ Conversely, and rather surprisingly, the first scholars herald the beginning of a responsible port state era.⁶¹

In any case, only a few ships have been detained in ports of EU member states in the past in order to prevent them being sent to South Asian ship recycling yards for recycling operations.⁶² With regard to future EU regulatory measures in this area, port state control would again provide a means of correcting non-compliance by flag states. Furthermore, and almost equally important, port state jurisdiction always provides an opportunity to also regulate, in accordance with the Paris MoU, the conduct of ships under foreign flags calling at ports of EU member states. And presently, the international maritime community tentatively seems to accept additional obligations to be imposed and checked by port states—at least as long as the acting ports are considered important enough.

3. Marine Environmental Protection

First of all, it is imperative to note that the provisions on marine environmental protection, as established under UNCLOS, do not address ship recycling. One reason may relate to the fact that ship recycling as a topic did not appear on the agenda when the contents of UNCLOS were debated. Another reason might be attributed to a different factor: At the time of the UNCLOS deliberations, the international attitude towards global governance and, more particularly, international environmental regulation put much more emphasis on aspects of sovereignty and, hence, was much more reluctant with regard to measures intervening in the national sphere.⁶³ If one however acknowledges that critical ship recycling

ICJ, *Barcelona Traction Case* [5 February 1970], Separate Opinion Judge Fitzmaurice, ICJ Reports 1970, 65, at 105 para. 70: “[I]nternational law does not impose hard and fast rules on States delimiting spheres of national jurisdiction [. . .], but leaves to States a wide discretion in the matter. It does however (a) postulate the *existence* of limits [. . .]; and (b) involve for every State an obligation to exercise moderation and restraint as to the extent of the jurisdiction assumed by its courts in cases having a foreign element, and to avoid undue encroachment on a jurisdiction more properly appertaining to, or more appropriately exercisably by, another State”.

⁶⁰ Molenaar, ‘Port State Jurisdiction: Toward Comprehensive, Mandatory and Global Coverage’, 38 *Ocean Dev. & Int’l L.* 225 (2007), at 235 (emphasis in the original).

⁶¹ Molenaar, ‘Port State Jurisdiction: Toward Comprehensive, Mandatory and Global Coverage’, 38 *Ocean Dev. & Int’l L.* 225 (2007), at 247: “The trend from optional to mandatory port state jurisdiction appears unavoidable. Awareness that the interests of the international community are not only undermined by free riders in their capacity as flag states, but also in their capacity as port states, is expected to spread due to current and future concerns [. . .]. It therefore may not be long before the notion of a responsible port state becomes firmly established in law and policy”.

⁶² However, this was typically done on the basis of Basel Convention-related legislation; for information on, e.g., the *Sandrien* case, see *infra* chapter “European Ship Recycling Regulation”, note 442 and accompanying text (p. 173).

⁶³ See *supra* chapter “Introduction”, A–B.

operations are principally conducted not only within the territory of sovereign states, but also *on* beaches and shores, then it becomes more and more apparent why such an issue had not been included.

Still, the fact that UNCLOS does not address this issue explicitly does not mean that it is completely insignificant in this respect. Again, it is one of the advantages of the regime's framework character that it is, to some extent, open to dynamic modification. Nonetheless, as will be analysed, its actual implications are less than one might expect. Therefore, the marine environmental protection regime of UNCLOS will be presented in order to depict its relevance for European ship recycling activities and to extract whether it eventually sets legal limits to European regulatory measures in this respect.

Generally, the marine environmental protection regime of UNCLOS provides an overarching legal framework which is supplemented by various other international treaties and instruments. It is interesting to note that UNCLOS presents a shift in perception insofar as it is built on the presumption that pollution should be prohibited whereas earlier approaches, to some extent, accepted marine pollution as "legitimate and permissible uses of the seas".⁶⁴

Central to an understanding of the core provisions of UNCLOS on marine environmental protection, i.e. the provisions contained in its Part XII, is the definition of 'pollution of the marine environment', as provided by its Article 1.1 para. 4:

'Pollution of the marine environment' means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities;

Two aspects have been praised with regard to this definition: its inclusive character, and its open nature.⁶⁵ The first aspect refers to the fact that the definition includes all kinds of different marine pollution sources such as land-based and atmospheric pollution in addition to the traditional notion of pollution from sea-going ships.⁶⁶ The latter aspect highlights the fact that the definition focuses on the (possibly) harmful effects of anthropogenic behaviour, thereby opening the definition towards new scientific findings.⁶⁷ Especially the latter aspect provides a classic example of the framework character of UNCLOS as it facilitates dynamic adaption to novel circumstances.

⁶⁴ Rothwell/Stephens, *The International Law of the Sea* (2010), at 342; Boyle, 'Marine Pollution Under the Law of the Sea Convention', 79 *A.J.I.L.* 347 (1985), at 347; Hafner, *Die seerechtliche Verteilung von Nutzungsrechten* (1987), at 177.

⁶⁵ See, e.g., Rothwell/Stephens, *The International Law of the Sea* (2010), at 342.

⁶⁶ Rothwell/Stephens, *The International Law of the Sea* (2010), at 342. The inclusion of land-based sources of marine pollution is interesting insofar as it dilutes, to some extent, the mentioned criticism concentrating on the fact that ship recycling basically is a land-based activity which should therefore not be regulated by a maritime convention.

⁶⁷ Rothwell/Stephens, *The International Law of the Sea* (2010), at 342.

As of today, the marine environment is primarily polluted by private entities such as private companies and, to a less degree, individuals. Still, the risk that pollution by states exists cannot be excluded as well. To successfully regulate the behaviour of individual entities to whom UNCLOS is not applicable directly and states parties alike, it has thus been considered necessary to structure the marine environment protection regime of UNCLOS in a tripartite way⁶⁸. First of all, Articles 192–194 UNCLOS stipulate the prohibition of the pollution of the marine environment in general terms. The second regulatory layer, i.e. Articles 207 *et seq.* UNCLOS, prescriptively provides for states parties to establish international standards in order to prevent, reduce and control the pollution of the marine environment ('prescriptive jurisdiction'). And thirdly, Articles 213 *et seq.* UNCLOS state national enforcement obligations of those standards ('enforcement jurisdiction'). The latter provisions therefore give practical effect to Articles 207–212 UNCLOS, thereby institutionally attempting to ensure compliance with Articles 192–194 UNCLOS.⁶⁹

a) General Provisions

Articles 192, 194 and 195 belong to section 1, entitled 'General Provisions', of Part XII of UNCLOS. This section "formulates a series of legal principles in appropriate treaty language, without imposing specific obligations or conferring quantifiable rights on States".⁷⁰

With regard to Article 194 UNCLOS, three issues are particularly worth noting in the context of this study: Firstly, as opposed to the general and unrestricted obligation of Article 192 UNCLOS, it stipulates a conditional *erga omnes*-obligation⁷¹ for states to take measures necessary to prevent, reduce and control marine environmental pollution. The conditional character of the provision is established by reference to "the best practicable means at their disposal and in accordance with their capabilities".⁷² A comparison of its first and second paragraph provides the second remarkable finding: In cases of transnational pollution, i.e. pollution crossing states' borders, there is no such possibility of restricting one particular state's

⁶⁸ Hafner, 'Meeresumwelt, Meeresforschung und Technologietransfer', in Graf Vitzthum (ed.), *Handbuch des Seerechts* (2006), 347, paras. 40 and 91; cf. König, 'Marine Environment, International Protection', M.P.E.P.I.L. (April 2011, online), para. 11.

⁶⁹ Nordquist/Rosenne/Yankov/Grandy (eds.), *UNCLOS Commentary*, vol. IV (1990), para. 213.1.

⁷⁰ Nordquist/Rosenne/Yankov/Grandy (eds.), *UNCLOS Commentary*, vol. IV (1990), para. 192.1; cf. Hafner, 'Meeresumwelt, Meeresforschung und Technologietransfer', in Graf Vitzthum (ed.), *Handbuch des Seerechts* (2006), 347, para. 39.

⁷¹ Cf. König, 'Marine Environment, International Protection', M.P.E.P.I.L. (April 2011, online), para. 8; Hafner, 'Meeresumwelt, Meeresforschung und Technologietransfer', in Graf Vitzthum (ed.), *Handbuch des Seerechts* (2006), 347, para. 41.

⁷² Article 194.1 UNCLOS.

obligations.⁷³ Looking at the social and environmental effects of ship recycling operations, it becomes obvious that the negative social effects directly caused by marine environmental pollution such as groundwater quality-related diseases⁷⁴ are more of a local and/or regional issue whereas the problem of negative effects on the environment easily crosses states' borders and reaches areas beyond national jurisdiction.⁷⁵ The third paragraph of Article 194 UNCLOS explicitly includes all different kinds of sources of pollution, thereby corresponding to the definition of marine pollution mentioned above. Measures to be taken according to Article 194 UNCLOS shall be directed, *inter alia*, at the following sources of pollution of the marine environment:

- (a) the release of toxic, harmful or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping;
- (b) pollution from vessels, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, preventing intentional and unintentional discharges, and regulating the design, construction, equipment, operation and manning of vessels;
- [...]
- (d) pollution from other installations and devices operating in the marine environment, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, and regulating the design, construction, equipment, operation and manning of such installations or devices.⁷⁶

At first sight, all these sources seem to be relevant here, at least to some extent. As regards Article 194.3 lit. a UNCLOS, though, the question arises whether a ship which has been 'beached' can be considered a land-based source of pollution, assuming that it releases harmful substances such as oil sludge onto the beach. Pollution of the marine environment considered 'land-based' is defined as pollution *inter alia* resulting directly from discharges at the coast as well as from man-made structures (the latter of which has to be distinguished from marine artificial islands).⁷⁷ Whether the term 'man-made structures' includes ships quite firmly

⁷³ Hafner, 'Meeresumwelt, Meeresforschung und Technologietransfer', in Graf Vitzthum (ed.), *Handbuch des Seerechts* (2006), 347, para. 42.

⁷⁴ The hazardous nature of the work itself, notwithstanding its potentially harmful effects on human beings, is not of relevance in this respect as this risk exists irrespective of marine environmental pollution.

⁷⁵ The latter aspect becomes particularly obvious if one looks at satellite pictures of, for example, the territorial sea close to Chittagong, Bangladesh. In this context, it is interesting to note that, according to the ICJ in the *Corfu Channel case*, all states have an obligation derived from general customary law not to let another state be harmed by effects originating from their home territories in case they are aware of the likely danger; see ICJ, *Corfu Channel case*, Judgment of 9 April 1949, ICJ Reports 1949, 4, at 22; see also *infra* chapter "European Ship Recycling Regulation", note 415 and accompanying text (pp. 168 et seq.).

⁷⁶ Article 194.3 UNCLOS.

⁷⁷ Kwiatkowska, 'Marine pollution from land-based sources: Current problems and prospects', 14 *Ocean Dev. & Int'l L.* 315 (1984), at 319; cf. Sands, *Principles of International Environmental Law* (2003), at 428; atmospheric pollution and pollution through watercourses which are typically considered in this context as well have been omitted here for the sake of clarity and due to lack of relevance.

attached to beaches' sediments may be disputed—rather typically, the term is considered to refer to pipelines etc.⁷⁸ Notwithstanding these considerations, the provision in any case includes negligent and/or deliberate discharges of harmful substances at the coast, thus applying to ship recycling operations conducted at beaches.

Article 194.3 lit. b UNCLOS urges states to take measures regulating the design, construction, equipment and operation in order to “minimize to the fullest possible extent [...] pollution from vessels”.⁷⁹ Due to the ‘cradle to grave’-approach as envisaged by the Hong Kong Convention, provisions regulating these issues may also be relevant in the context of European ship recycling regulation.⁸⁰ Nevertheless, it is questionable here whether the provision also encompasses pollution from former ships during the process of being dismantled.⁸¹ A systematic and teleologic analysis however results in the preliminary finding that lit. b eventually only refers to still sea-going vessels.⁸² This finding is furthermore endorsed by a comparison with the provision's lit. d, which aims at regulating “pollution from other installations and devices operating in the marine environment”.⁸³ *Inter alia*, this provision also refers to the regulation of vessels' design, construction, equipment and operation, thereby providing some kind of a catchall element, i.e., a final provision which might apply if the others do not.⁸⁴ Nevertheless, and even if questions arise as to whether a beached ship is still ‘operated’ in the sense of the regulation, this provision in any case applies to other devices such as blowpipes, torch lamps, cable winches and all the other little devices currently used for ship recycling operations at Southeast-Asian beaches.⁸⁵

⁷⁸ Cf. Article 207.1 UNCLOS.

⁷⁹ Article 194.3 lit. b UNCLOS.

⁸⁰ However, they have to be read in conjunction with Article 21 UNCLOS, i.e., regulatory provisions on these issues by the coastal state are not admissible “unless they are giving effect to generally accepted international rules or standards”.

⁸¹ Typically, a ship loses its legal status as ‘ship’ as soon as a respective intention of the owner has been made public – which certainly happens as soon as an old ship gets ‘beached’; for further information on this matter, see *infra* chapter “European Ship Recycling Regulation”, note 192 and accompanying text (p. 130); a different approach would focus on the responsibility of the shipowner *viz* flag state prior to sale and/or delivery of the ship to the ship recycling facility.

⁸² Otherwise, the mentioned objective to “ensur[e] the safety of operations at sea” as well as the explicit reference to “preventing accidents and dealing with emergencies” would not be too reasonable. A historic interpretation also confirms this preliminary result as a few delegations allegedly suggested to include a reference to vessels' operation during the second session of the drafting deliberations on this UNCLOS provision in 1974; see Nordquist/Rosenne/Yankov/Grandy (eds.), UNCLOS Commentary, vol. IV (1990), para. 194.5 note 16.

⁸³ Article 194.3 lit. d UNCLOS.

⁸⁴ See the exact wording of Article 194.3 lit. d UNCLOS: “pollution from *other* installations and devices operating in the marine environment [...]” (emphasis added).

⁸⁵ Cf. Nordquist/Rosenne/Yankov/Grandy (eds.), UNCLOS Commentary, vol. IV (1990), para. 194.10(m).

One of the reasons why Article 195 UNCLOS is significant in the present context has been mentioned already. Direct effects of ship recycling operations on the environment such as groundwater pollution and oil sludge residues at beaches not only directly affect the local environment, but are also dispersed into the ocean, thereby easily crossing national borders and reaching areas beyond national jurisdiction. By stipulating that states must not “transfer, directly or indirectly, damage or hazards from one area to another [...]”, Article 195 UNCLOS addresses this concern.

b) Prescriptive Jurisdiction

Following these general provisions, the subsequent major section establishes provisions of the category ‘prescriptive jurisdiction’. In the following parts, the issue of ship recycling will henceforth be related to Articles 207, 210 and 211 UNCLOS.

Article 207.1 UNCLOS “restates and amplifies”⁸⁶ Article 194.3 lit. a UNCLOS by stipulating, with a particular focus on the national sphere, that states shall adopt domestic legislation and “other measures”⁸⁷ in order “to prevent, reduce and control pollution of the marine environment from land-based sources [...] taking into account internationally agreed rules, standards and recommended practices and procedures”.⁸⁸ It is important, however, to mention that the reference to international rules and standards is supposedly the “weakest of the qualifications used to indicate the obligations of States in respect of internationally agreed measures”,⁸⁹ thereby recognising the territorial sovereignty of states.⁹⁰ For obvious reasons, this provision primarily addresses coastal states which is why it is not of too much relevance in the context of European activities in the field of ship recycling. Other parts of Article 207 UNCLOS, such as its third paragraph, shift the focus to the international level again by requesting states to “endeavour to establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment from land-based sources, taking into account characteristic regional features, the economic capacity of developing States and their need for economic development”.⁹¹

⁸⁶ Nordquist/Rosenne/Yankov/Grandy (eds.), UNCLOS Commentary, vol. IV (1990), para. 207.7(a).

⁸⁷ See Article 207.2 UNCLOS; note, however, that this provision is considered to restate the obligations of Article 194 UNCLOS as a whole, thus also including Article 194.3 lit. d UNCLOS; in this regard, see Nordquist/Rosenne/Yankov/Grandy (eds.), UNCLOS Commentary, vol. IV (1990), para. 207.7(b).

⁸⁸ Article 207.1 UNCLOS.

⁸⁹ Nordquist/Rosenne/Yankov/Grandy (eds.), UNCLOS Commentary, vol. IV (1990), para. 207.7(a).

⁹⁰ By way of recognising territorial sovereignty, the provision thus pays due regard to the notion of sovereignty reflected in the fundamental objective of UNCLOS, as mentioned above; see *supra* chapter “European Ship Recycling Regulation”, A.I.1 (pp. 102 et seq.).

⁹¹ Article 207.3 UNCLOS.

Article 210 UNCLOS requires states to take legislative action, complemented by other necessary measures, to “prevent, reduce and control pollution of the marine environment by dumping”.⁹² Marine pollution by dumping has first been addressed in the 1972 London Convention.⁹³ According to the definition of ‘dumping’, as provided by Article 1.1 para. 5 UNCLOS, dumping in this context only refers to “any deliberate disposal of vessels, aircraft, platforms or other man-made structures *at sea*”.⁹⁴ Therefore, Article 210 UNCLOS is not relevant in the ship recycling context.⁹⁵

Article 211 UNCLOS addresses flag states, port states and coastal states. All these actors are obliged to “establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels”.⁹⁶ Flag states in particular are required to adopt laws and regulations for vessel-source pollution of ships flying their flag or of their registry. UNCLOS does not offer suggestions on the substance of the provisions to be adopted, but indirectly specifies them by way of reference.⁹⁷ Their complexity stems from the “different legal situations involved in the control of vessel-source pollution”.⁹⁸ Due to the fact that the provision however complements states’ obligations as stipulated by Article 194.3 lit. b UNCLOS,⁹⁹ it is, in principle, not relevant here. Only to the extent that flag state regulation of, for example, the sale of ships for recycling purposes is concerned, this provision would apply.¹⁰⁰

⁹² Article 210.1 UNCLOS.

⁹³ For more information on the 1972 London Convention, see *infra* chapter “European Ship Recycling Regulation”, A.III.1 (pp. 147 et seq.).

⁹⁴ Article 210.1 para. 5 lit. a (ii) UNCLOS (emphasis added).

⁹⁵ For the same reasons, Article 216 UNCLOS addressing enforcement measures in case of marine pollution by dumping also does not apply here; for further information on the relevance of the 1972 London Convention and its 1996 Protocol for ship recycling, see *infra* chapter “European Ship Recycling Regulation”, A.III.1 (pp. 147 et seq.).

⁹⁶ Article 211.1 UNCLOS.

⁹⁷ Boyle, ‘Marine Pollution Under the Law of the Sea Convention’, 79 A.J.I.L. 347 (1985), at 353.

⁹⁸ Nordquist/Rosenne/Yankov/Grandy (eds.), UNCLOS Commentary, vol. IV (1990), para. 211.15(b).

⁹⁹ Nordquist/Rosenne/Yankov/Grandy (eds.), UNCLOS Commentary, vol. IV (1990), para. 211.1.

¹⁰⁰ See Article 211.1–2 UNCLOS: “1. States [...] shall establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels [...]. Such rules and standards shall [...] be re-examined from time to time as necessary.

2. States shall adopt laws and regulations for the prevention, reduction and control of pollution of the marine environment from vessels flying their flag or of their registry. Such laws and regulations shall at least have the same effect as that of generally accepted international rules and standards established through the competent international organization or general diplomatic conference”.

c) Enforcement Jurisdiction

Section 6, presented here with a particular focus on Articles 213 and 217 UNCLOS, provides a non-exhaustive¹⁰¹ list of instances of ‘enforcement jurisdiction’. These provisions thus deal with the national enforcement of international rules and standards which have been incorporated into domestic legislation, as stipulated by Articles 207–212 UNCLOS.¹⁰²

Against this background, Article 213 UNCLOS establishes an obligation of states to “enforce their laws and regulations adopted in accordance with article 207”.¹⁰³ Furthermore, it stipulates a related obligation to “adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment from land-based sources”.¹⁰⁴ In so doing, this dual obligation provides a balance between the international and the domestic level.¹⁰⁵ As Article 207 UNCLOS primarily addresses the coastal state, the same applies to Article 213 UNCLOS. In the context of ship recycling, Article 213 UNCLOS therefore principally applies to enforcement activities by ship recycling states and gives no further guidance as to European measures in this respect.

Article 217 UNCLOS stipulates flag state obligations with particular regard to the enforcement of legislation and other measures adopted in accordance with Article 211 UNCLOS. Therefore, the same restriction applies here as well: Article 217 UNCLOS is only applicable to the extent that the enforcement of legislation and complementing measures is concerned which addresses ships prior to their arriving at the ship recycling yard. Prior to this point of time, flag states are generally obliged to “ensure compliance with applicable international rules and standards”.¹⁰⁶ Accordingly, if applicable international rules and standards at some point in time will also state minimum standards with regard to ship recycling operations—which would fall under the scope of Article 211.1 UNCLOS—, Article 217.1 will require states to appropriately address this issue as a result of its wide scope of application.¹⁰⁷ Additionally, and to some extent independent of Article 211 UNCLOS, Article 217.2 UNCLOS requires states to ensure compliance with international standards including “requirements in respect of design, construction,

¹⁰¹ Cf., e.g., Articles 233, 290 and 292 UNCLOS.

¹⁰² Nordquist/Rosenne/Yankov/Grandy (eds.), UNCLOS Commentary, vol. IV (1990), para. 213.1.

¹⁰³ Article 213 UNCLOS.

¹⁰⁴ Article 213 UNCLOS.

¹⁰⁵ Nordquist/Rosenne/Yankov/Grandy (eds.), UNCLOS Commentary, vol. IV (1990), para. 213.7(a).

¹⁰⁶ Article 217.1 UNCLOS.

¹⁰⁷ Cf. the latter of the two sentences of Article 217.1 UNCLOS: “Flag States shall provide for the effective enforcement of such rules, standards, laws and regulations, irrespective of where a violation occurs”.

equipment and manning of vessels”.¹⁰⁸ If, in the wake of the ‘cradle to grave’-concept, international standards will be established with the aim of regulating the design and construction of ships to be build in order to directly facilitate later recycling operations, the enforcement of which would also fall under the regulatory scope of Article 217 UNCLOS. Moreover, Article 217.3 UNCLOS primarily addresses flag states and requires them to ensure that ships flying their flag or of their registry comply with international rules and standards to carry on board particular certificates and to have their conformity with the actual condition of the ship periodically verified. This obligation has to be regarded in the context of ideas such as, *inter alia*, the ‘inventory of hazardous materials’¹⁰⁹ and the additional surveys,¹¹⁰ as would be required under the Hong Kong Convention.

For present purposes, UNCLOS eventually lacks a provision which allows for preventative enforcement measures of the port state similar to Article 219 without requiring concerns regarding the seaworthiness of the ship in question.

d) ‘Generally Accepted’ and ‘Applicable’ International Rules and Standards

The aim of upholding the ‘primacy of international rules and standards over national laws and regulations’ is considered one of the key characteristics of Part XII of UNCLOS.¹¹¹ As mentioned above, Article 197 UNCLOS requires states to

cooperate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features.

A number of subsequent provisions in Part XII seek to incorporate by reference these international rules and standards, thereby again illustrating the framework nature of UNCLOS.¹¹²

The references chosen differ significantly: Article 211.2 UNCLOS, for example, requires flag states to adopt laws and regulations which “shall at least have the same effect as that of generally accepted international rules and standards established through the competent international organization or general diplomatic

¹⁰⁸ Article 217.2 UNCLOS.

¹⁰⁹ See supra chapter “The Hong Kong Convention”, C.III.1.a) (pp. 35 et seq.).

¹¹⁰ See supra chapter “The Hong Kong Convention”, C.III.1.c) (pp. 37 et seq.).

¹¹¹ König, ‘Marine Environment, International Protection’, M.P.E.P.I.L. (April 2011, online), para. 12, referring to the 1996 Helsinki Report of the International Law Association.

¹¹² Rothwell/Stephens, *The International Law of the Sea* (2010), at 343; Franckx, *Vessel-source Pollution and Coastal State Jurisdiction* (2001), at 105–106.

conference”.¹¹³ Accordingly, an area of discretion remains (‘at least’)¹¹⁴ and states may decide to enact stricter rules.¹¹⁵ Other references only require states to “tak[e] into account internationally agreed rules, standards and recommended practices and procedures”,¹¹⁶ thereby assigning even more discretion to regulatory activities.¹¹⁷

In provisions stipulated in the section on enforcement, a further type is chosen by reference to “applicable international rules and standards”.¹¹⁸ Hence, these types of references obviously have different objectives. As WOLFRUM has elaborated, references

may formulate an obligation of a flag State or an obligation of ships engaged in particular activities, or it formulates limitations for the prescriptive jurisdiction of coastal States, or it serves as a clause legitimizing implementation measures of port States. These objectives do not contradict but, rather, complement each other. The mutually interrelated obligations and rights form a legal regime on the safety at sea and the protection of the sea against pollution, respectively.¹¹⁹

With regard to enforcement proceedings by port States, for example, the invocation of a particular IMO convention or standard does not necessarily require the flag state whose flag the particular ship is flying or under whose registry it is listed to actually be a party to the convention or to have actively supported the establishment and adoption of the standard.¹²⁰ This directly follows from the term ‘applicable’ which “means that by its very substance the respective rules govern the issue at stake [...]”.¹²¹ Such an understanding, notwithstanding its *prima facie* degradation

¹¹³ For further rules of reference of this kind, see Articles 21.2, 211.5, 211.6, and 226.1 lit. a UNCLOS.

¹¹⁴ Boyle, ‘Marine Pollution Under the Law of the Sea Convention’, 79 A.J.I.L. 347 (1985), at 353–354.

¹¹⁵ Oxman, ‘The Duty to Respect Generally Accepted International Standards’, 24 N.Y.U. J. Int’l L. & Pol. 109 (1991), at 131; Franckx, Vessel-source Pollution and Coastal State Jurisdiction (2001), at 105.

¹¹⁶ Article 207.1 UNCLOS.

¹¹⁷ Boyle, ‘Marine Pollution Under the Law of the Sea Convention’, 79 A.J.I.L. 347 (1985), at 354.

¹¹⁸ Article 218.1 UNCLOS.

¹¹⁹ Wolfrum, ‘IMO Interface with the Law of the Sea Convention’, in Nordquist/Moore (eds.), Current Maritime Issues and the International Maritime Organization (1999), 223, at 229.

¹²⁰ Rothwell/Stephens, The International Law of the Sea (2010), at 343–344; Boyle, ‘Marine Pollution Under the Law of the Sea Convention’, 79 A.J.I.L. 347 (1985), at 356.

¹²¹ Wolfrum, ‘IMO Interface with the Law of the Sea Convention’, in Nordquist/Moore (eds.), Current Maritime Issues and the International Maritime Organization (1999), 223, at 231; cf. Lemke, *Erfüllungsdefizite des Flaggenstaats* (2011), at 59; Frank, The European Community and Marine Environmental Protection in the International Law of the Sea (2007), at 27; Ringbom, The EU Maritime Safety Policy and International Law (2008), at 393–396. According to Oxman, these provisions should be interpreted as only applying to those international rules and standards “which are truly ‘international’ by virtue of their widespread [...] acceptance”; Oxman, ‘The Duty to Respect Generally Accepted International Standards’, 24 N.Y.U. J. Int’l L. & Pol. 109 (1991), at 133.

of the *pacta tertiis* principle,¹²² is justified by the idea that the “establishment of universally applicable rules and their effective implementation is in the interest of the community of States, in the advancement of shipping, and the preservation of the marine environment”.¹²³ Additionally, states are considered to indirectly having agreed to being bound by these dynamic rules and standards the point in time they decided to ratify UNCLOS.¹²⁴ Moreover, it is just an additional step further than the tacit approval procedure which the IMO has already been using for the development of technical standards.¹²⁵ Eventually, it proves to be quite an effective instrument to foster the primacy of regulative efforts at the international level.

Hence, and with regard to ship recycling, the question arises whether, for example, the non-binding *IMO Guidelines on Ship Recycling*¹²⁶ could possibly be engaged by way of such a reference. This would, in case the question is answered in the affirmative both with regard to prescription and enforcement, result in the general possibility of port states to institute proceedings against a particular ship if the port state has reason to believe that the ship will leave the port for a ship recycling destination which does not comply with those IMO standards.

The question therefore is first of all what renders a particular rule or standard ‘generally accepted’. According to OXMAN,

general acceptance is most likely to emerge from a combination of ratification or formal acceptance by some states of the treaty or instrument containing the standard, implementation of the standard by other states, and respect for the standard by individuals and companies whose activities are its ultimate object.

Once a particular standard becomes ‘generally accepted’, the gap is closed by the duty and the standard binds everyone. This is true even if the organization that adopted the standard does not have universal membership, the standard was adopted by divided vote, the resolution that articulates the standard is not legally binding, or the treaty in which the standard is incorporated is not generally accepted or even in force.¹²⁷

¹²² Cf. Rothwell/Stephens, *The International Law of the Sea* (2010), at 343–344; Boyle, ‘Marine Pollution Under the Law of the Sea Convention’, 79 A.J.I.L. 347 (1985), at 356; Frank, *The European Community and Marine Environmental Protection in the International Law of the Sea* (2007), at 25–27.

¹²³ Wolfrum, ‘IMO Interface with the Law of the Sea Convention’, in Nordquist/Moore (eds.), *Current Maritime Issues and the International Maritime Organization* (1999), 223, at 232. Similarly to the justification attempts for extraterritorial jurisdiction referred to above, ‘interests of the international community’ do also in the present context serve as a means of legitimising exemptions; see supra chapter “European Ship Recycling Regulation”, note 59 and accompanying text (p. 109).

¹²⁴ Frank, *The European Community and Marine Environmental Protection in the International Law of the Sea* (2007), at 26; Ringbom, *The EU Maritime Safety Policy and International Law* (2008), at 168, referring to the final report of the ILA’s Committee on Coastal State Jurisdiction Relating to Marine Pollution (2000); Oxman, ‘The Duty to Respect Generally Accepted International Standards’, 24 N.Y.U. J. Int’l L. & Pol. 109 (1991), at 114–116.

¹²⁵ For further information in this respect, see König, ‘Tacit Consent/Opting Out Procedures’, in Wolfrum (ed.), *M.P.E.P.I.L.* (November 2006, online), paras. 8–9.

¹²⁶ See supra chapter “The Hong Kong Convention”, B.III.2 (p. 29).

¹²⁷ Oxman, ‘The Duty to Respect Generally Accepted International Standards’, 24 N.Y.U. J. Int’l L. & Pol. 109 (1991), at 141.

Consequently, there is no clear-cut formula to assess whether a rule or standard has attained ‘general acceptance’. Generally, these references only make sense in case they do not merely refer to legally valid international customary law or other already binding international instruments.¹²⁸ In the end, an answer to the question has to be given on a case-to-case basis paying due regard to all the stakeholders involved and particularly to those specifically affected.¹²⁹ As a result, there seems to be common understanding that at least the core provisions of MARPOL 73/78 and 1974 SOLAS have achieved the status of ‘generally accepted international rules and standards’.¹³⁰ In the light of these considerations, and due to lacking practice of relevant states and industry in this respect, it cannot be confirmed that the *IMO Guidelines on Ship Recycling* have (yet) become ‘generally accepted’.¹³¹ Consequently, one may infer from these considerations that also port state enforcement of these guidelines is not yet admissible.

e) Implications for European Regulatory Action

In sum, it can be assessed that the definition of marine pollution, as established in Article 1.1 para. 4 UNCLOS, does also encompass pollution resulting from ship recycling operations, irrespective of whether the ship is actually located on the beach or in the adjacent waters. It is still important to acknowledge that the regulation of ship recycling operations has not been foreseen at the time of the deliberations on UNCLOS. Therefore, only a few provisions of its marine environmental protection regime can be considered relevant here. These provisions include in particular Article 194.3 lit. a and lit. d from the general provisions, Articles 207.1 and—to a lesser extent—211 from the prescriptive section as well as Article 217 from the section on enforcement. The non-binding *IMO Guidelines on Ship Recycling* cannot yet be considered ‘generally accepted’.

¹²⁸ Ringbom, *The EU Maritime Safety Policy and International Law* (2008), at 393–394; Lemke, *Erfüllungsdefizite des Flaggenstaats* (2011), at 58–59; see also Franckx, *Vessel-source Pollution and Coastal State Jurisdiction* (2001), at 107: “Generally accepted international rules and standards cannot be equated with customary law nor with legal instruments in force for the states concerned. Generally accepted international rules and standards, instead, are primarily based on state practice, attaching only secondary importance to the nature and status of the instrument containing the respective rule or standard”.

¹²⁹ In this sense, such an assessment is similar to finding a new rule of customary international law; see Oxman, ‘The Duty to Respect Generally Accepted International Standards’, 24 N.Y.U. J. Int’l L. & Pol. 109 (1991), at 146–147 and 157; see also Lemke, *Erfüllungsdefizite des Flaggenstaats* (2011), at 59–60; Franckx, *Vessel-source Pollution and Coastal State Jurisdiction* (2001), at 116.

¹³⁰ See, e.g., Lemke, *Erfüllungsdefizite des Flaggenstaats* (2011), at 60.

¹³¹ This finding is furthermore endorsed by the fact that the European Union has not incorporated these IMO Guidelines into European Union legislation, which typically is one way of giving effect to and enforcing international rules and standards, as stipulated by UNCLOS; see Frank, *The European Community and Marine Environmental Protection in the International Law of the Sea* (2007), at 634; more generally, see Harrison, *Making the law of the sea* (2011), at 175–176.

Furthermore, it is important to acknowledge that a certain overall tendency still sees ‘prescriptive jurisdiction’ standardised at the international level, whereas ‘enforcement jurisdiction’—due to lacking international enforcement possibilities—is left to states.¹³² On the other hand, UNCLOS includes various references to complementary regional strategies, thereby encouraging regional approaches in certain contexts.¹³³ For these reasons, UNCLOS does by no means turn against unilateral approaches to the regulation of ship recycling by actors such as the European Union—“provided any regional arrangements are consistent with the Convention’s object and purpose in the terms prescribed by Articles 237 and 311, and in conformity with the relevant substantive articles of the Convention”.¹³⁴

Likewise, the European Union has always emphasised the need for consistency with the marine environmental protection regime, as established by UNCLOS.¹³⁵ Therefore, European Union measures have not only aimed at “strengthening the application of IMO rules in European seas [...], anticipating their implementation [...] or making IMO non-legally binding rules mandatory”,¹³⁶ but they also demonstrated the perception of the European Union “that it not only has a right, but also a duty under the LOSC [i.e. UNCLOS] to take regulatory action”.¹³⁷ Being a party to UNCLOS, the European Union has, in principle,¹³⁸ the flag state right “to adopt laws and regulations for the prevention, reduction and control of pollution of the marine environment from vessels flying their flag or of their registry”.¹³⁹ Besides, it has, just as its member states (on their own or jointly), the port state right to “establish particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into their ports or internal waters”.¹⁴⁰ Exercise of such right may be

¹³² König, *Durchsetzung internationaler Bestands- und Umweltschutzvorschriften auf Hoher See im Interesse der Staatengemeinschaft* (1990), at 82–83; Hafner, ‘Meeresumwelt, Meeresforschung und Technologietransfer’, in Graf Vitzthum (ed.), *Handbuch des Seerechts* (2006), 347, para. 66; cf. Boyle, ‘Marine Pollution Under the Law of the Sea Convention’, 79 *A.J.I.L.* 347 (1985), at 352.

¹³³ Boyle, ‘Further Development of the Law of the Sea: Mechanisms for Change’, 54 *I.C.L.Q.* 563 (2005), at 566–567 and 575–576.

¹³⁴ *Ibidem*, at 578.

¹³⁵ Frank, *The European Community and Marine Environmental Protection in the International Law of the Sea* (2007), at 422.

¹³⁶ *Ibidem*, at 423.

¹³⁷ *Ibidem*, at 423.

¹³⁸ Depending on the issue at stake, EU member states have conferred their competencies to the European Union with the result that the latter “exercises rights and duties stemming from the LOSC [UNCLOS] with regard to vessels flying the flag of the member states”; see Frank, *The European Community and Marine Environmental Protection in the International Law of the Sea* (2007), at 233.

¹³⁹ Article 211.2 UNCLOS.

¹⁴⁰ Article 211.3 UNCLOS.

criticised for political reasons,¹⁴¹ but it seems to be in conformity with the jurisdictional framework set by UNCLOS,¹⁴² at least as long as it is conducted in a non-discriminatory manner.¹⁴³

II. 1989 Basel Convention

The *1989 Basel Convention on the Control of Transboundary Movements of Wastes and their Disposal* (Basel Convention; BC)¹⁴⁴ is one of the most significant multilateral environmental agreements in force. As of 2011, 179 states are party to the convention¹⁴⁵ which makes it—in terms of ratifications—one of the most successful international treaties ever concluded. In substance, it has to be seen as a regulatory answer to the dramatic increase in the quantities of waste being shipped and disposed of abroad in the 1970s and 1980s,¹⁴⁶ which had followed the “path of least resistance”.¹⁴⁷

While the EU has been a party to the Basel Convention ever since 3 February 1994¹⁴⁸ and consequently enacted its ‘Waste Shipment Regulation’ (WSR)¹⁴⁹, this section exclusively focuses on the international level. The European WSR is dealt

¹⁴¹ Especially with regard to the adoption of standards for construction, design, equipment and manning of ships, legislative jurisdiction of states – due to their extraterritorial implications and the costs involved – has often been challenged; see Frank, *The European Community and Marine Environmental Protection in the International Law of the Sea* (2007), at 202 and 204; Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (1998), at 102–104.

¹⁴² Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (1998), at 111–117.

¹⁴³ Ibidem, at 116; Lemke, *Erfüllungsdefizite des Flaggenstaats* (2011), at 60.

¹⁴⁴ Basel Convention on the Control of Transboundary Movements of Wastes and their Disposal (adopted 22 March 1989, entered into force 5 May 1992).

¹⁴⁵ See the information pertaining to the Basel Convention as kept in custody of the Secretary-General of the United Nations, <<http://treaties.un.org/>> accessed 31 January 2012.

¹⁴⁶ Kummer, *International Management of Hazardous Wastes* (1995), at 5–6 and 42–43; Kiss, ‘The International Control of Transboundary Movement of Hazardous Waste’, 26 *Tex. Int’l L. J.* 521 (1991), at 522; Sundram, ‘Basel Convention on Transboundary Movement of Hazardous Wastes: Total Ban Amendment’, 9 *Pace Int’l L. Rev.* 1 (1997), at 5–7; Cusack, ‘International Law and the Transboundary Shipment of Hazardous Waste to the Third World: Will the Basel Convention Make a Difference?’, 5 *Am. U. J. Int’l L. & Pol’y* 393 (1990), at 393–394.

¹⁴⁷ See Kummer, *International Management of Hazardous Wastes* (1995), at 6.

¹⁴⁸ Council Decision 93/98/EEC on the conclusion, on behalf of the Community, of the Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel Convention).

¹⁴⁹ Council Regulation (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community; replaced by Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste.

with at a later point of this study¹⁵⁰ both for the sake of clarity and in order to illustrate that possible conflicts of norms between the Basel Convention and the Hong Kong Convention necessarily require to be solved at the international level.¹⁵¹

1. Objectives and Scope

The primary objectives of the Basel Convention include minimising the generation¹⁵² and transboundary movement¹⁵³ of hazardous and other wastes and ensuring environmentally sound management of these wastes.^{154,155} Generally, the Basel Convention is open and broad in its scope of application in order to encompass as many different kinds of waste as theoretically and practically feasible.¹⁵⁶

2. Applicability to Ship Recycling

The question of the Basel Convention's applicability *ratione materiae*, i.e., whether ships sent and/or sold for recycling fall within the regulatory scope of the Basel Convention, is contingent upon three elements: The ships have to be classified as waste,¹⁵⁷ they have to be subject to transboundary movement,¹⁵⁸ and both the state

¹⁵⁰ See infra chapter "European Ship Recycling Regulation", B.II.1 (pp. 170 et seq.).

¹⁵¹ Being a party to the Basel Convention, the European Union is legally bound to enact legislation in order to implement and enforce the provisions of the Basel Convention. If there is a conflict of norms between the Basel Convention and the Hong Kong Convention which cannot be avoided by constructing and interpreting the relevant provisions of both international agreements in an appropriate manner, the conflict of norms would necessarily find a continuation at the EU level because the European Union would also be obliged to legally implement the crucial provisions of the Basel Convention. Therefore, the only solution to such a conflict can be found at the international level. For further details in this respect, see infra chapter "European Ship Recycling Regulation", A.II.3 (pp. 132 et seq.).

¹⁵² Article 4.2(a) BC.

¹⁵³ Article 4.2(d) BC; related obligations require parties to ensure the domestic availability of disposal facilities (Article 4.2(b) BC), to allow transboundary movements of hazardous and other wastes only if certain conditions are met (Article 4.9 BC) and to criminalise illegal traffic (Articles 4.3 and 4.4 BC).

¹⁵⁴ Articles 4.2(d), 4.2(g), 4.8, 4.9(a) and 4.10 BC.

¹⁵⁵ For further information on the Basel Convention's objectives, see Kummer, *International Management of Hazardous Wastes* (1995), at 55–60, 263–265 and 272–274.

¹⁵⁶ See Kummer, *International Management of Hazardous Wastes* (1995), at 48; Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 100.

¹⁵⁷ See Article 1.1 BC.

¹⁵⁸ According to Article 2.3 BC, "[t]ransboundary movement' means any movement of hazardous wastes or other wastes from an area under the national jurisdiction of one State to or through an area under the national jurisdiction of another State or to or through an area not under the national jurisdiction of any State, provided at least two States are involved in the movement".

of export and the state of import have to be parties to the Basel Convention.¹⁵⁹ With transboundary movement being self-evident in this context and 179 states parties to the Basel Convention including every member state of the European Union as well as all the major recycling states,¹⁶⁰ the only remaining question is whether ships on their final voyage are to be qualified as waste according to the Basel Convention. This question has, in principle, been decided in the affirmative. This assessment is not undisputed however,¹⁶¹ and the respective criticism will be considered in the following paragraphs.

a) Definitions

The Basel Convention requires wastes to be “substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law”.¹⁶² The central reference of the definition is therefore the notion of ‘disposal’. Disposal operations are defined,¹⁶³ *inter alia*, as “[o]perations which may lead to resource recovery, recycling reclamation, direct re-use or alternative uses”¹⁶⁴ such as “[u]se as a fuel (other than in direct incineration) or other means to generate energy”,¹⁶⁵ “[s]olvent reclamation/regeneration”,¹⁶⁶ “[r]ecycling/reclamation of metals and metal compounds”,¹⁶⁷ “[r]ecycling/reclamation of other inorganic materials”,¹⁶⁸ “[r]ecovery of components used for pollution

¹⁵⁹ See, e.g., Article 4.5 BC.

¹⁶⁰ According to the data as provided by the Secretary-General of the United Nations, only Afghanistan, Haiti and the United States have signed the Basel Convention but have not ratified it; see *supra* chapter “European Ship Recycling Regulation”, note 145.

¹⁶¹ See Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 115–116; Finn, ‘The Role of the Shipbroker’, *Ship Recycling Conference 2005*: “The legal applicability of the Basel Convention to ships as waste is a more complex issue. Owners are well aware that various materials historically used in the construction and operation of ships are classified as hazardous wastes under the convention. Owners are fully supportive of the need for environmentally sound management of the ship recycling industry. However, the environmental pressure groups’ hijacking of the Basel Convention to support their campaign against ship recycling is perhaps flawed and becoming an obstacle to progress. The convention was drawn up to police the transboundary movement of hazardous waste, not the decommissioning of ships, and is a clear case of fitting a round peg into a square hole”.

¹⁶² Article 2.1 BC; according to Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 115, the definition of ‘waste’ of the Basel Convention “clearly was not meant to cover disused vessels and vessels sailing to a destination where they shall be dismantled”.

¹⁶³ Kummer, *International Management of Hazardous Wastes* (1995), at 48–49.

¹⁶⁴ Annex IV-B to the Basel Convention.

¹⁶⁵ R1 of Annex IV-B to the Basel Convention.

¹⁶⁶ R2 of Annex IV-B to the Basel Convention.

¹⁶⁷ R4 of Annex IV-B to the Basel Convention.

¹⁶⁸ R5 of Annex IV-B to the Basel Convention.

abatement”¹⁶⁹ and “[u]sed oil re-refining or other reuses of previously used oil”.¹⁷⁰ As a matter of fact, ships sold for recycling operations are purchased by ship recycling facilities in order to recover, reclaim and re-use the valuable resources.¹⁷¹ Hence, according to the definition as provided by the Basel Convention, ships sent for recycling operations fall, in principle, within the scope of the Basel Convention.¹⁷²

b) Objections

Nevertheless, industry stakeholders as well as maritime experts still consider these ships to be excluded from the regulatory scope due to a few indicative and teleological considerations.¹⁷³ These considerations appear to be based on the ‘sentiment’ that ship recycling operations, due to their very nature, do not fit into the objectives and scope of the Basel Convention.¹⁷⁴ The submission of the *Industry Working Party on Ship Recycling* (IWPSR) to MEPC 52¹⁷⁵ summarises industry views which can be divided into two sections: firstly, a rather detailed consideration of the definitions given by the Basel Convention; and secondly, a more general, systematic approach to the question.¹⁷⁶ The reasoning of the first part concentrates on Article 1 BC whose relevant provisions state:

1. The following wastes that are subject to transboundary movement shall be ‘hazardous wastes’ for the purposes of this Convention:

¹⁶⁹ R7 of Annex IV-B to the Basel Convention.

¹⁷⁰ R9 of Annex IV-B to the Basel Convention.

¹⁷¹ According to Lagoni/Albers, ‘Schiffe als Abfall?’, 30 NuR 220 (2008), at 223, about 99,95 % of the materials on-board ships are typically recovered; Puthucherril, *From Shipbreaking to Sustainable Ship Recycling* (2010), at 15; see also supra chapter “Entry-Into-Force Provision”, D.I.1.b) (pp. 69 et seq.).

¹⁷² Nevertheless, the scope of the convention has caused quite considerable debate during the elaboration of the Basel Convention; see, e.g., Kummer, *International Management of Hazardous Wastes* (1995), at 48.

¹⁷³ See the report of the MEPC on its 49th session (8 August 2003), IMO-doc. MEPC 49/22, para. 3.17: “The delegation of Bahamas supported by the majority of those who spoke [...] stated that there might be a difference in the way the IMO and the Basel Convention considers ships towards the end of their operating life since IMO would not tend to define the ship delivered for recycling as a waste but as resource containing some contaminants”; see also Ormond, ‘Enforcing EU environmental law outside Europe?’, *ELNI Review* 13 (1/2009), at 13 and note 1.

¹⁷⁴ Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 113–114; whereas many stakeholders ultimately agree in this regard, i.e. they consider the Basel Convention not to be ‘fit for purpose’ with regard to ship recycling, they still view the Basel Convention as initially applicable while looking forward to a scope-restricting decision of the parties to the Basel Convention in view of the Hong Kong Convention; for further information in this respect, see infra chapter “European Ship Recycling Regulation”, A.II.5 (p. 147).

¹⁷⁵ Annex to IMO-doc. MEPC 52/Inf.12.

¹⁷⁶ For the rationale of the following paragraphs, see the Annex to IMO-doc. MEPC 52/Inf.12, paras. 5–14.

- (a) Wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; and
 - (b) Wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit.
2. Wastes that belong to any category contained in Annex II that are subject to transboundary movement shall be 'other wastes' for the purposes of this Convention.

Pursuant to these provisions, wastes to which the Basel Convention applies have to be either 'hazardous wastes' as defined in its Articles 1.1(a) or 1.1(b) BC or 'other wastes' as defined in its Article 1.2 BC. Article 1.1(a) BC excludes those wastes from the scope of the Basel Convention which do not "possess any of the characteristics in Annex III". Hence, these characteristics are of paramount importance for the decision whether Article 1.1(a) BC applies.¹⁷⁷

According to the submission by the IWPSR, ships sold to ship recycling facilities cease to be ships according to MARPOL 73/78 just before the disposal operations commence. Furthermore, ships are said to be completely under the control and responsibility of the ship recycling facility at this point of time. Only then, might "certain components of or materials within the ship, when isolated, [...] fall within the definition" as stipulated by Annex III.¹⁷⁸ But, as the IWPSR argues, at this point of time, the final voyage to the ship recycling facility, including the transboundary movement, is completed.¹⁷⁹ Accordingly, after this final and ultimate voyage of the ship, there is no point in having the Basel Convention on the Control of *Transboundary Movements* of Wastes and their Disposal apply.

Obviously, ships as units do not possess any of the stated characteristics of Annex III.¹⁸⁰ Something different may apply with regard to the last characteristic, i.e. being capable, after disposal, of yielding another material possessing any of the other characteristics. Such an understanding depends, however, on the understanding of the potential 'yielding' character of the disposed object as such. From a philological perspective, two remarks have to be given—one with regard to chronological order, the other one in relation to the verb 'to yield'. Firstly, the relevant part of the provision, as stipulated in Annex III, states:

Capable, by any means, after disposal, of yielding another material [...] which possesses any of the characteristics listed above.¹⁸¹

¹⁷⁷ Annex III enumerates the following list of different and possibly dangerous characteristics: explosive; flammable liquids; flammable solids; substances or wastes liable to spontaneous combustion; substances or wastes which in contact with water emit flammable gases; oxidizing; organic peroxides; poisonous; infectious substances; corrosives; liberation of toxic gases in contact with air or water; toxic; ecotoxic; capable, by any means, after disposal, of yielding another material, e.g., leachate, which possesses any of the characteristics listed above.

¹⁷⁸ Para. 10 of the Annex to IMO-doc. MEPC 52/Inf.12.

¹⁷⁹ Para. 11 of the Annex to IMO-doc. MEPC 52/Inf.12.

¹⁸⁰ According to Lagoni/Albers, 'Schiffe als Abfall?', 30 NuR 220 (2008), at 221 and 223–227, the Basel Convention as well as its transposed provisions only apply if ships as units can be considered 'waste'; for a different view in this respect, see Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 117–118.

¹⁸¹ Annex III to the Basel Convention, Code H13.

Ratione temporis, this means that first of all comes disposal, and ‘after disposal’ a different material with hazardous characteristics is ‘yielded’. If one however looks at ship recycling operations on-board a ship which has been beached, then the process of disposal and possible instances of environmental pollution occur concurrently. By all means, it is certainly not the pollution occurring after ship recycling operations have been concluded that is most critical. Hence, it seems that this provision does not exactly fit into the ship recycling context.

Secondly, according to *The Oxford English Dictionary* (1978), the verb ‘to yield’, *inter alia*, has the following meanings:

To give forth from its own substance by a natural process, or in return for cultivation or labour; to produce, bear, generate [...].¹⁸²

Hence, from a mere philological perspective, the process of yielding typically does not have any effects on the future persistence of the object ‘having yielded’. Ship recycling operations, on the other hand, aim at complete recovery of the ships’ assets, so that this object clearly ceases to exist after the completion of the disposal operations. Again, the wording of the Basel Convention does not exactly fit—although the second argument eventually is weaker.

Irrespective of these considerations, the main argument of the IWPSR, i.e. their allegation that the final voyage of a ship to the ship recycling facility has already been completed when it comes to disposal operations can clearly be rejected: Article 2.1 BC defines wastes as “substances or objects which are disposed of or are intended to be disposed of”. Obviously again, the fact that the disposal takes place at a later stage is not sufficient to object to the application of the Basel Convention as the ‘intention’ to do so is sufficient, and this intention already exists at an earlier stage of the process.¹⁸³ As a matter of course, shipowners may deny that they had knowledge of recycling plans regarding a seaworthy ship before selling it. As a result, the question gains momentum how the ‘intention to disposal’ can be validly assessed. Only after a ship has been deliberately ‘beached’, one can be perfectly certain in objective terms.¹⁸⁴ Yet, other facts—while objective as well—do not necessarily result in definite conclusions: Even in case a ship is bought by a cash-buyer who changes the ship’s name and its crew and sends it to a ship recycling state, there might still be an—albeit theoretical—possibility that freight rates rise significantly and he is made an offer for the ship at the second-hand market due to its increased relative value which he cannot reasonably refuse.¹⁸⁵ In this case, qualifying the ship as waste according to the definitions given by the Basel Convention and having it detained somewhere would certainly interfere with the shipowner’s legal position in terms of his title to the ship and his freedom of

¹⁸² The Oxford English Dictionary (Oxford: Oxford University Press, 1933, reprinted in 1978).

¹⁸³ In this context, see *infra* chapter “European Ship Recycling Regulation”, note 189 and accompanying text (p. 129).

¹⁸⁴ See Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 115.

¹⁸⁵ For further information on decision-making in the shipping markets and the relevance of the price mechanism, see *supra* chapter “Entry-Into-Force Provision”, D.I.2 (pp. 74 et seq.).

navigation under Article 87 UNCLOS.¹⁸⁶ Hence, it is rather delicate to assume the shipowner's intention to disposal objectively. Therefore, the focus has to be shifted to a more subjective perspective.

To assess whether a shipowner has deliberately decided to dispose of a particular ship is still faced with further difficulties. These difficulties even increase when the shipowner openly declares that he does not plan to dispose of the ship in the near future.¹⁸⁷ Such a situation raises the question whether it is admissible to deduct the shipowner's decision from objective factors¹⁸⁸ such as the age of the ship, the route to be taken, previous behaviour of the shipowner with regard to ships in their final life cycle, etc. Subsequently, if answered in the affirmative, the question arises as to how such a conclusion is practically feasible, i.e., which sets of information to collect, how to value each fact, whether the evaluation is conducted with regard to each fact on its own or whether a general consideration is more appropriate, whether and how different information is put into relation, and whether these assessments are conducted on a case-by-case basis without resorting to a fundamental concept at all.

Some scholarly analyses argue that, in case there is no explicit statement regarding an intended disposal, such an inference from objective factors is permissible, if these factors indicate a disposal soon to happen.¹⁸⁹ According to LAGONI/ALBERS, these factors include: the re-classification of a ship, the deletion of the ship from the maritime register, deficient/lacking renewal of necessary certificates, the termination of operating the ship as means of freight and/or person transport, etc.¹⁹⁰ Additionally, factors such as the overall condition of the ship including its equipment are considered to play an important role.¹⁹¹ Similarly, negotiations with potential cash-buyers allegedly also indicate a pertinent intention.

Such an understanding, however, turns out not to be too persuasive: To have a particular ship re-classified may result from an entrepreneurial decision of the shipowner which, as such, he cannot be seriously accused of. The deletion of the ship from the maritime register does not really seem to be a feasible option for shipowners at all as long as the ship is still sea-going. With the deletion of the ship

¹⁸⁶ Lagoni/Albers, 'Schiffe als Abfall?', 30 NuR 220 (2008), at 224; Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 115.

¹⁸⁷ In the case of the cruise liner 'Blue Lady', for example, the captain, when confronted by officials in the port of Bremerhaven, had announced that the ship was going to be used as a hotel ship and/or for education purposes. This statement was supported by a number of further factors. Consequently, it was not possible to detain the ship in the port. After the ship's departure, the shipowner reconsidered his previous decision resulting in the sale of the ship for recycling purposes; for further information, see Bt-Drs. 16/3775, pp. 35–38.

¹⁸⁸ Lagoni/Albers, 'Schiffe als Abfall?', 30 NuR 220 (2008), at 224.

¹⁸⁹ For further references, see Lagoni/Albers, 'Schiffe als Abfall?', 30 NuR 220 (2008), at 224.

¹⁹⁰ *Ibidem*, at 224.

¹⁹¹ For further information, see Bt-Drs. 16/3775, pp. 35–38.

from the maritime register, it loses its character as a ship,¹⁹² thereby typically only increasing the costs for the shipowner compared to a ship which is still sea-going. To not renew certificates required by international rules and standards may *eo ipso* justify port state measures such as the detainment of the ship—however certainly not with regard to a possible later disposal of the ship, but only because these certificates document the seaworthiness of the ship and, therefore, are considered necessary by the maritime community. The mere fact that a particular ship is not used for the transport of freight and/or persons any more cannot be subjected to criticism, too, as this is, again, up to the shipowner to decide—at least as long as the ship is considered seaworthy according to the mentioned international rules and standards. Similarly, the mere fact that a shipowner enters into negotiations with a cash-buyer regarding the sale of a particular ship cannot be criticised as well: It is inherent to the fundamental concept of ownership that the owner is, in principle and within certain legal limits, entitled to capitalise on his legal position by means of selling the object and transferring title to it to someone else.¹⁹³ In sum, to infer the ‘intention to disposal’ from the mentioned factors not only interferes with shipowners’ (navigational) rights, but is also hardly feasible in practical terms.¹⁹⁴

The second and rather systematic approach put forward by the IWPSR focuses on Article 1.4 BC which is worded as follows:

Wastes which derive from the normal operations of a ship, the discharge of which is covered by another international instrument, are excluded from the scope of this Convention.

With particular regard to MARPOL 73/78, this reference deals with wastes derived from ships “operating in the marine environment”.¹⁹⁵ This, in turn, is understood to give exclusive applicability to MARPOL 73/78 as long as the ship in question is operating.¹⁹⁶ Put into different words: As long as the ship is operating in the marine environment, MARPOL 73/78 is the only international instrument regulating ship-related waste. It can therefore be understood, so they argue, that Article 1.4 BC excludes ships on their final journey to the ship recycling facility from the scope of the Basel Convention. It is however questionable whether this is the actual implication of Article 1.4 BC. This systematic approach seems to have been utilised in

¹⁹² Lagoni, ‘Marine Archäologie und sonstige auf dem Meeresboden gefundene Gegenstände’, AVR 328 (2006), at 345–346; see also Article 1.4 of the 2007 Nairobi International Convention on the Removal of Wrecks (not yet in force).

¹⁹³ Lagoni/Albers, ‘Schiffe als Abfall?’, 30 NuR 220 (2008), at 224, come to the same conclusion while taking a different loop: According to them, the shipowner does not aim at economically profiting from the disposal operations, but rather (and only) from the sale of the ship. He is considered indifferent with regard to the future fate of the item he sells. Disposal of the ship – in case the sale of the ship actually results in its disposal – does not happen to tangle upon his legal sphere at all. This is why, so they argue, factors indicating a possible sale of a ship can, in principle, never support a conclusion as to his ‘intention to disposal’.

¹⁹⁴ See Lagoni/Albers, ‘Schiffe als Abfall?’, 30 NuR 220 (2008), at 224.

¹⁹⁵ Article 2.4 MARPOL 73/78.

¹⁹⁶ Para. 2 of the Annex to IMO-doc. MEPC 52/Inf.12.

order to conceal the obvious: As the stated objective of MARPOL 73/78 is “to achieve the complete elimination of intentional pollution of the marine environment by oil and other harmful substances and the minimization of accidental discharge of such substances”,¹⁹⁷ which is more specific in this context than the Basel Convention. Accordingly, the mentioning of ‘another international instrument’ by Article 1.4 BC is a rather clear repetition of Article 30.2 VCLT.¹⁹⁸ Two important differences, however, can be assumed: Firstly, in this context, MARPOL 73/78 primarily deals with wastes *from* operating ships, and secondly, it also does not typically perceive the ships themselves to be waste.¹⁹⁹

Ultimately, the point is that there is no exclusivity as implied by the IWPSR: A ship on its final journey to the ship recycling facility which intentionally releases oil into the ocean falls within the scope of MARPOL 73/78. The same ship is—as long as it is qualified as ‘waste’ according to Articles 1 and 2 BC—at the same time also subject to provisions of the Basel Convention.²⁰⁰

c) Summary

As of the tie of writing, the Basel Convention due to its broad scope applies to ships on their last voyage. Hence, these ships are *de lege lata* not exempted from international waste shipment law.²⁰¹

¹⁹⁷ Fourth recital of MARPOL 73.

¹⁹⁸ Article 30.2 VCLT: “When a treaty specifies that it is subject to, or that it is not to be considered as incompatible with, an earlier or later treaty, the provisions of that other treaty prevail”; cf. ILC, ‘Reports of the Commission to the General Assembly’, Yearbook ILC (1966/II), 169, at 215: “[P]arties to [an] earlier treaty are always competent to abrogate it, whether in whole or in part, by concluding another treaty with that object. That being so, when they conclude a second treaty incompatible with the first, they are to be presumed to have intended to terminate the first treaty or to modify it to the extent of the incompatibility, unless there is evidence of a contrary intention. Accordingly, in these cases the inclusion of a clause in the second treaty expressly proclaiming its priority over the first does no more than confirm the absence of any contrary intention.”; on the contrary, the inclusion of a clause expressly proclaiming the priority of ‘another international instrument’ into a later treaty does just the opposite: it confirms the contrary intention of the parties attending.

¹⁹⁹ At least as long the particular ship is not involved in an accident and its operability consequentially is hampered; see Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 115–116.

²⁰⁰ See European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 2.2; see also indent 35 of Regulation (EC) No 1013/2006; for a sceptical analysis in this respect, cf. Lagoni/Albers, ‘Schiffe als Abfall?’, 30 NuR 220 (2008), at 225.

²⁰¹ Nevertheless, see European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 5.4: “Provided that the Ship Recycling Convention enters into force and that the Parties to the Basel Convention regard it as ensuring an equivalent level of control, larger commercial vessels on their final voyage to the demolition yard would no longer be subject to waste shipment rules”.

3. Coordination of the Conflict Between the Basel Convention and the Hong Kong Convention

The process labelled ‘globalisation’ has precipitated the problem of fragmentation.²⁰² Fragmentation, in turn, leads to conflicts of international treaties. Consequently, clear authority statements have become increasingly necessary in order to avoid inconsistencies in the development and interpretation of international law.²⁰³

HARRISON has voiced related concerns as follows:

The risk of fragmentation is further increased because international institutions tend to approach problems from the particular perspective dictated by the aims and objectives that are set out in their constituent instrument.²⁰⁴

For these reasons, most international environmental agreements contain one or more provisions dealing with potential conflicts with other international instruments.²⁰⁵ The pertinent provisions of the law of treaties may also be employed in order to institutionally coordinate these instruments, but only where the invocation of these conflict clauses is not capable of clarifying the relationship between agreements.²⁰⁶ Nevertheless, the “question of conflict between treaties [...] is a complicated matter and it cannot be said that clear guidance has yet come from judicial or arbitral sources.”²⁰⁷

Multilateral treaties collide if the following preconditions are met: (At least) two international agreements in effect cover the same subject matter²⁰⁸ and states parties to both treaties are in the same group of addressees. Additionally, the exercise of particular rights stemming from the first agreement must conflict with pertinent obligations under the second. Finally, a harmonising interpretation of the colliding provisions in a manner which eventually resolves the conflict by displaying their compatibility must have also failed.²⁰⁹

²⁰² Shaw, *International Law*⁶ (2008), at 65–67; Koskeniemi/Leino, ‘Fragmentation of international law? – Postmodern Anxieties’, 15 L. J. Int’l L. 553 (2002), at 557–558 and 560; see also Burke-White, ‘International Legal Pluralism’, 25 Mich. J. Int’l L. 963 (2004), at 967–968.

²⁰³ Wellens, ‘Fragmentation of International Law and Establishing an Accountability Regime for International Organizations: The Role of the Judiciary in Closing the Gap’, 25 Mich. J. Int’l L. 1159 (2004), at 1180; Stoll, ‘Questionnaire International Environmental Law’ in Zimmermann/Hofmann (eds.), *Unity and Diversity in International Law* (2006), 135, at 153.

²⁰⁴ Harrison, *Making the law of the sea* (2011), at 240.

²⁰⁵ Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 120–129.

²⁰⁶ Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 122.

²⁰⁷ See ILC, ‘Fragmentation of International Law’ (13 April 2006), UN-doc. A/CN.4/L.682, paras. 248–249; Stoll, ‘Questionnaire International Environmental Law’ in Zimmermann/Hofmann (eds.), *Unity and Diversity in International Law* (2006), 135, at 153.

²⁰⁸ For the debate on this term, see ILC, ‘Fragmentation of International Law’ (13 April 2006), UN-doc. A/CN.4/L.682, paras. 253–256; a too strict interpretation of ‘the same subject-matter’ is however questioned by Sinclair, *Vienna Convention on the Law of Treaties*² (1984), at 98.

²⁰⁹ See Matz-Lück, ‘Treaties, Conflicts between’ in Wolfrum (ed.), *M.P.E.P.I.L.* (April 2006, online), para. 20: “In comparison to derogation the application of both treaties to their maximum

a) Conflict Clauses

Conflict clauses reflect the fundamental idea that there is, in principle,²¹⁰ no hierarchy of treaties in international law.²¹¹ Therefore, it is up to the state parties to one particular international agreement to regulate its relationship with other treaties.²¹²

International legal scholars have recognised a number of different types of conflict clauses.²¹³ Generally, they may be categorised as follows: On the one hand, there are provisions which establish the prevalence of already existing treaties.²¹⁴ They differ to the extent they refer to the prevailing agreements insofar as they either contain a general reference to the existing rights and obligations of states parties, or explicitly refer to a specific treaty. Essentially, this type of conflict clause provides a deviation from the principle *lex posterior derogat legi priori*.²¹⁵ Article 1.4 BC for example provides that wastes which derive from the normal operation of ships are not covered by the Basel Convention. Therefore, this provision is meant to substantially separate the scope of the Basel Convention from MARPOL 73/78.²¹⁶

On the other hand, there are clauses which establish priority over future agreements, i.e. agreements which had not entered into force at the point of time the conflict clause itself became legally binding.²¹⁷ Such a provision is challenging for different reasons. First of all, it is worth noting that these types of conflict clauses attempt to restrict the sovereignty of states parties to the agreement in future

effect is preferable”; see also ILC, ‘Second report on the law of treaties, by Sir Humphrey Waldock, Special Rapporteur’ (20 March, 10 April, 30 April and 5 June 1963), Yearbook ILC 1963-II, 36, at 53; Villiger, Commentary on the 1969 Vienna Convention on the Law of Treaties (2009), Article 30 para. 7; however, interpretation is to be rejected if the two colliding provisions clearly contradict each other as such a situation cannot be solved by adopting a certain ‘modified’ understanding of the wording.

²¹⁰ See Article 103 UNCh.

²¹¹ Wolfrum/Matz, Conflicts in International Environmental Law (2003), at 120; Matz-Lück, ‘Treaties, Conflicts between’ in Wolfrum (ed.), M.P.E.P.I.L. (April 2006, online), para. 3.

²¹² Report of the ILC on the Work of its 18th session, UN-doc. A/CN.4/191, at 124.

²¹³ ILC, ‘Fragmentation of International Law’ (13 April 2006), UN-doc. A/CN.4/L.682, para. 268; Villiger, Commentary on the 1969 Vienna Convention on the Law of Treaties (2009), Article 30 para. 11; Aust, Modern Treaty Law and Practice² (2007), at 218–227; Roucounas, ‘Engagements parallèles et contradictoires’, 206 RdC 9 (1987), at 88–93.

²¹⁴ Establishing priority of a new agreement over existing treaties merely is “an expression of the progressive development of law” in that it permits “environmental protection to evolve and develop along with scientific insights”; Wolfrum/Matz, Conflicts in International Environmental Law (2003), at 127; see also Pauwelyn, Conflict of Norms in Public International Law (2003), at 331–332.

²¹⁵ Pauwelyn, Conflict of Norms in Public International Law (2003), at 333.

²¹⁶ Ibidem, at 124; however, this provision does not establish a general rule regarding the relationship of the Basel Convention with other multilateral environmental agreements.

²¹⁷ Of course, these references also include future agreements which have not yet been concluded at all.

treaty negotiations.²¹⁸ The legal force of such a provision is reasonably limited: Although its inclusion appears to indicate the importance of the subject-matter at the point of time the particular multilateral agreement was concluded, the whole basis of the agreement may have been altered by new scientific insights, and the underlying assumptions may have developed as well. For these reasons, and ultimately due to the sovereignty of the individual states, the contents of a conflict clause may still be subject to subsequent modification.²¹⁹

Qualifications of conflict clauses are possible for both existing and future agreements. A qualified conflict clause may, for example, establish the priority of existing rights and obligations under the condition that certain requirements are met and/or specific thresholds taken into account. Article 11 of the Basel Convention, for example, permits states parties to “enter into bilateral, multilateral, or regional agreements or arrangements regarding transboundary movement of hazardous wastes or other wastes with Parties or non-Parties provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes and other wastes [. . .]” as required under the Basel Convention. Therefore, it explicitly stipulates a hierarchy in case certain conditions are met with regard to the substantive matter of the Basel Convention.²²⁰ Still, the task of assessing whether these additional requirements are fulfilled renders the handling of such a qualified conflict clause even more complicated due to difficulties in interpretation.²²¹

b) Article 30 VCLT

The relevant—whilst only residuary²²²—provisions of Article 30 VCLT state the following:

2. When a treaty specifies that it is subject to, or that it is not to be considered as incompatible with, an earlier or later treaty, the provisions of that other treaty prevail.

²¹⁸ Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 127–128.

²¹⁹ See Matz-Lück, ‘Treaties, Conflict Clauses’ in Wolfrum (ed.), *M.P.E.P.I.L.* (April 2006, online), para. 11; see also Articles 30.3–30.4 and 41 VCLT; on the other hand, see the advisory opinion of the ICJ, *Reservations to the Convention on the Prevention and Punishment of the Crime of Genocide* case (28 May 1951), ICJ Reports 1951, 15, at 21: “It is also a generally recognized principle that a multilateral convention is the result of an agreement freely concluded upon its clauses and that consequently none of the contracting parties is entitled to frustrate or impair, by means of unilateral decisions or particular agreements, the purpose and *raison d’être* of the convention”.

²²⁰ Report of the ILC on the Work of its 18th session, UN-doc. A/CN.4/191, at 124.

²²¹ Matz-Lück, ‘Treaties, Conflict Clauses’ in Wolfrum (ed.), *M.P.E.P.I.L.* (April 2006, online), para. 13; this is also why Article 11 BC has caused considerable turmoil among scholars and practitioners; see Kummer, *International Management of Hazardous Wastes* (1995), at 96–107.

²²² Aust, *Modern Treaty Law and Practice*² (2007), at 227; for a rather sceptic perspective on the effectiveness of Article 30 VCLT, see, e.g., Sinclair, *Vienna Convention on the Law of Treaties*² (1984), at 98.

3. When all the parties to the earlier treaty are parties also to the later treaty but the earlier treaty is not terminated or suspended in operation under article 59, the earlier treaty applies only to the extent that its provisions are compatible with those of the later treaty.
4. When the parties to the later treaty do not include all the parties to the earlier one:
 - (a) as between States Parties to both treaties the same rule applies as in paragraph 3;
 - (b) as between a State party to both treaties and a State party to only one of the treaties, the treaty to which both States are parties governs their mutual rights and obligations.

Article 15.2 of the Hong Kong Convention states that “[n]othing in this Convention shall prejudice the rights and obligations of Parties under other relevant and applicable international agreements.” Irrespective of whether this is considered a declaratory reference to Article 30.2 VCLT or a substantial provision standing on its own,²²³ its objective is to establish and differentiate areas of competence.²²⁴ With particular regard to the relationship between the Basel Convention and the Hong Kong Convention, this means, in principle, that the provisions of the former prevail. Therefore, as already mentioned above, it is up to the parties to the Basel Convention to decide whether and how to proceed with regard to the future conflict between the Basel Convention and the Hong Kong Convention in the field of ship recycling. If there is no clarifying decision at the Conference of the Parties to the Basel Convention when the Hong Kong Convention finally enters into force, then paragraphs 3 and 4 of Article 30 VCLT will apply. This results in the complicated situation that between states parties to the Hong Kong Convention—which due to the present ratification status of the Basel Convention are also parties to that one—the Basel Convention applies to the extent that its provisions are compatible with the Hong Kong Convention (*lex posterior derogat lege priori*).²²⁵ With regard to the relationship between states which are only parties to the Basel Convention and other states, irrespective of whether the latter are party to the Hong Kong Convention or not, the Basel Convention has unrestricted application (*relative validity*).²²⁶

Corresponding to the implications resulting from Article 30 VCLT, the contractual freedom of states also, within certain limits, allows for the modification of earlier international instruments by way of later agreements. The Hong Kong Convention could therefore be considered a contractual deviation from those provisions of the Basel Convention which *de lege lata* apply to ship recycling. This relates to the concept of Article 41 VCLT.

²²³ See Villiger, *Commentary on the 1969 Vienna Convention on the Law of Treaties* (2009), Article 30 para. 19.

²²⁴ See Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 123–124.

²²⁵ In a general context, see Wright, ‘Conflict between International Law and Treaties’, 11 A.J.I.L. 566 (1917), at 579; Aust, *Modern Treaty Law and Practice*² (2007), at 249; Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 152–158; in the debates on Article 30.4 VCLT, the original suggestion however advocated the *lex prior*-rule in order not to “interfere seriously with the interests of the other parties to that [former] treaty or seriously impair the original purpose of the treaty”; see ILC, ‘Law of Treaties, Report by Mr. H. Lauterpacht, Special Rapporteur’, *Yearbook ILC* 1953/II, 90, at 156.

²²⁶ ILC, ‘Law of Treaties, Third Report by G.G. Fitzmaurice, Special Rapporteur’ (18 March 1958), *Yearbook ILC* 1958-II, 20, at 41–45.

c) Article 41 VCLT

According to the ICJ, “[...] it is well understood that, in practice, rules of international law can, by agreement, be derogated from in particular cases or as between particular parties”.²²⁷ Therefore, if all parties to the second agreement are also parties to the earlier one, then this would be considered an *inter se* modification “[...] whose permissibility would have to be resolved by interpreting the first treaty”,²²⁸ in accordance with Article 41 VCLT.²²⁹ Almost certainly will all states parties to the Hong Kong Convention also be states parties to the Basel Convention due to the ratification status of the latter agreement. Therefore, the permissibility of the Hong Kong Convention would have to be ‘resolved’ by interpreting the Basel Convention in the light of Article 41 VCLT.

Article 41.1 VCLT alludes to the possibility that the drafters of the former treaty have both “foreseen and permitted particular types of [later] *inter se* deviation”²³⁰ by stating the following provisions:

Two or more of the parties to a multilateral treaty may conclude an agreement to modify the treaty as between themselves alone if:

- (a) the possibility of such a modification is provided for by the treaty; or
- (b) the modification in question is not prohibited by the treaty and:
 - (i) does not affect the enjoyment by the other parties of their rights under the treaty or the performance of their obligations;
 - (ii) does not relate to a provision, derogation from which is incompatible with the effective execution of the object and purpose of the treaty as a whole.

Hence, in addition to providing a qualified conflict clause, as discussed above,²³¹ Article 11 BC is also an example of an institutional instrument allowing for optional deviation from the original obligations of the Basel Convention under certain conditions.²³² The rationale behind these provisions is that later and possibly less important or regional arrangements should not undermine the overall regime,²³³

²²⁷ ICJ, *North Sea Continental Shelf Case*, Judgment of 20 February 1969, ICJ Reports 1969, 3, at 42–43 para. 72.

²²⁸ ILC, ‘Second report on the law of treaties, by Sir Humphrey Waldock, Special Rapporteur’ (20 March, 10 April, 30 April and 5 June 1963), Yearbook ILC 1963-II, 36, at 60 para. 31; see also ILC, ‘Fragmentation of International Law’ (13 April 2006), UN-doc. A/CN.4/L.682, para. 265.

²²⁹ ILC, ‘Fragmentation of International Law’ (13 April 2006), UN-doc. A/CN.4/L.682, para. 266; in doing so, due regard should also be paid to the pragmatic rationale behind the *lex posterior* rule insofar as it typically reflects more precisely present circumstances as well as the present will of relevant actors; in this context, see also ICJ, *Gabčíkovo-Nagymaros Project*, Judgment of 25 September 1997, ICJ Reports 1997, 7, at 76.

²³⁰ ILC, ‘Fragmentation of International Law’ (13 April 2006), UN-doc. A/CN.4/L.682, at 157 para. 305; see also Aust, *Modern Treaty Law and Practice*² (2007), at 274–275.

²³¹ See *supra* chapter “European Ship Recycling Regulation”, A.II.3.a) (p. 133).

²³² See, e.g., Article XXIV GATT.

²³³ ILC, ‘Fragmentation of International Law’ (13 April 2006), UN-doc. A/CN.4/L.682, at 157–158.

thereby seeking to “maintain the integrity of the regime created”.²³⁴ More precisely, a deviation from provisions of the earlier agreement (i.e. the Basel Convention) is admissible if and when the later agreement (i.e. the Hong Kong Convention) does not undermine the overall conception of the earlier one. In the end, this question thus is more a matter of substance than of form. It therefore requires a thorough look at the substantive provisions of the conflicting agreements, while it should be kept in mind that it is first and foremost up to the states parties to the Basel Convention to conduct such an analysis.

4. Relationship Between the Basel Convention and the Hong Kong Convention

In the mid- or long-term—depending on the entry-into-force date of the Hong Kong Convention—it will be necessary to draw a very clear distinction between the Basel Convention and the Hong Kong Convention. This means that the Basel Convention will have to ‘pull back’ in terms of its scope of application if the Hong Kong Convention shall become a successful international instrument.²³⁵ Central to this consideration is the fact that the parties to the Basel Convention, including its secretariat, have supported and facilitated drafting efforts related to the Hong Kong Convention.²³⁶ Basel Convention parties would not have supported the drafting process to such an extent if, in the end, they disagreed with the contents of the Hong Kong Convention at one of the conferences of the states parties to the Basel Convention. That being said, it must not be forgotten that the parties to the Basel Convention will only agree to a decision to ‘pull back’ if they are more or less satisfied with the objectives, standards and obligations established by the Hong Kong Convention.²³⁷ The parties to the Basel Convention will have to assess both conventions to identify corresponding points.

In fact, suggestions in this regard have been on the agenda of relevant Basel Convention meetings ever since COP 7. This Basel Convention conference held in October 2004 saw the adoption of decision VII-26 inviting the *International Maritime Organization* (IMO) to consider establishing a regulatory ship recycling regime, while pointing out that, in doing so, it should “ensure an equivalent level of control as established under the Basel Convention”.²³⁸ This invitation was recalled

²³⁴ Aust, *Modern Treaty Law and Practice*² (2007), at 220.

²³⁵ Personal communication with Nikos Mikelis, Senior Implementation Officer of IMO, 6 April 2010.

²³⁶ The secretariat of the Basel Convention not only submitted numerous documents to MEPC meetings, but also joined and partially hosted meetings of the Joint Basel/IMO/ILO Working Group on Ship Recycling; see *supra* chapter “The Hong Kong Convention”, B.III.2 (pp. 29 et seq.).

²³⁷ In this context, see the report by Wallis, ‘IMO rejects campaigners’ call for ban on beaching’, *Lloyd’s List*, 14 May 2009, at 2; Greenpeace International, ‘Comment on the analysis on the mandatory requirements on ship recycling’ (27 May 2005), IMO-doc. MEPC 53/3/9, para. 6.

²³⁸ Decision VII/26: ‘Environmentally sound management of ship dismantling’ (29 October 2004), UN-doc. UNEP/CHW.7/33, at 63; in this regard, see also Greenpeace International et al.,

at COP 8 by decision VIII/11²³⁹ which however noted that “duplication of regulatory instruments that have the same objective should be avoided”, and it was further emphasised by decision IX/30, adopted at COP 9 in 2008.²⁴⁰ With a view to developing the (then) draft convention, this last decision invited IMO to have due regard to the competence and expertise of the Basel Secretariat, particularly in the field of environmentally sound management and the disposal of hazardous wastes.²⁴¹ It also invited IMO to stipulate “clear responsibilities of all stakeholders in ship recycling, including ship owners, ship recycling facilities, flag States and ship recycling States, with a view to achieving the safe and environmentally sound management of ship recycling, also taking into account the current capacity and the common but differentiated responsibilities and sovereign rights of the Parties”.²⁴² Based on these considerations, COP 9 furthermore requested the seventh meeting of the *Open-Ended Working Group of the Basel Convention* (OEWG 7),²⁴³

[t]o carry out a preliminary assessment on whether the ship recycling convention, as adopted, establishes an equivalent level of control and enforcement as that established under the Basel Convention, in their entirety, after having developed the criteria necessary for such assessment, and, in doing so, to take into account:

- (i) The special characteristics of ships and international shipping;
- (ii) The principles of the Basel Convention and the relevant decisions of the Conference of the Parties;
- (iii) The comments submitted by Parties and other relevant stakeholders, as appropriate,²⁴⁴

‘The need to develop a new legally-binding instrument that will build and improve upon existing environmental justice legislation’ (1 February 2006), IMO-doc. MEPC 54/3/5/Rev.1.

²³⁹ Decision VIII/11: ‘Environmentally sound management of ship dismantling’ (5 January 2007), UN-doc. UNEP/CHW.8/16, at 34.

²⁴⁰ Decision IX/30: ‘Dismantling of ships’ (27 June 2008), UN-doc. UNEP/CHW.9/39, at 56.

²⁴¹ Para. 2 of Decision IX/30: ‘Dismantling of ships’ (27 June 2008), UN-doc. UNEP/CHW.9/39, at 56.

²⁴² Para. 3 of Decision IX/30: ‘Dismantling of ships’ (27 June 2008), UN-doc. UNEP/CHW.9/39, at 56.

²⁴³ The Open-Ended Working Group was established at COP 6 by Decision VI/36: ‘Institutional Arrangements’, (13 December 2002), UN-doc. UNEP/CHW.6/40, at 160; pursuant to this decision, its mandate includes:

(a) To assist the Conference of the Parties in developing and keeping under continuous review the implementation of the Convention’s work plan, specific operational policies and decisions taken by the Conference of the Parties for the implementation of the Convention [...];

(b) To consider and advise the Conference of the Parties on issues relating to policy, technical, scientific, legal, institutional, administration, finance, budgetary and other aspects of the implementation of the Convention within the approved budget [...];

(c) To prepare its work plan for consideration by the Conference of the Parties;

(d) To report to the Conference of the Parties on the activities it has carried out between meetings of the Conference of the Parties.

²⁴⁴ Decision IX/30: ‘Dismantling of ships’ (27 June 2008), UN-doc. UNEP/CHW.9/39, at 56.

and to communicate the results of this assessment to COP 10 in October 2011. According to this request, an equivalency analysis of the level of control and enforcement of the Basel Convention and the Hong Kong Convention has to be based upon a set of criteria that weigh up the peculiarities of the shipping sector, the defining characteristics of the Basel Convention as well as relevant comments put forward by stakeholders.²⁴⁵ This list of criteria was developed at OEWG 7 and adopted by decision OEWG-VII/12²⁴⁶ according to the guidelines as presented in decision IX/30. It covers several subcategories under the following broad titles: Scope and applicability, control, enforcement, and exchange of information by parties as well as cooperation and coordination.

Most importantly, however, is that the assessment has to be carried out to analyse and compare the level of control and enforcement under both conventions 'in their entirety', i.e. not through a point-by-point analysis but rather utilising a functional approach.

a) Scope and Applicability

Major differences between the two conventions with regard to scope and applicability²⁴⁷ arise from their approach as regards the objects to be regulated as well as the life cycle during which they are applicable. Pursuant to its Article 3.1.1, the Hong Kong Convention applies to ships entitled to fly the flag of a party or operating under its authority, although warships, naval auxiliary, and other ships

²⁴⁵ More precisely, if one takes the request of COP 9 seriously as phrased in decision IX/30, the analysis would have to obey the following structure:

(1) Development of criteria necessary for the assessment on whether the ship recycling convention establishes an equivalent level of control and enforcement as that established under the Basel Convention, in their entirety;

(2) Conducting an assessment taking into account the special characteristics of ships and international shipping, the principles of the Basel Convention and the relevant COP decisions, and appropriate comments submitted by parties and other relevant stakeholders.

Therefore, if the request was to be taken seriously, the special characteristics of ships and international shipping, Basel Convention principles as well as related decisions and comments of relevant stakeholders were not to be taken into account during the first step of the analysis, i.e. developing the criteria. This directly follows from the use of the term 'in doing so' which clearly refers to the preliminary assessment and not to the development of necessary criteria. The remaining question however is whether taking the exact phrasing of the request too seriously poses a bigger impediment to the assessment as such than deliberately taking the blame for approaching the assessment in a too relaxed manner.

²⁴⁶ Decision OEWG-VII/12: 'Environmentally sound dismantling of ships' (14 May 2010), UN-doc. UNEP/CHW/OEWG/7/21, at 28–36.

²⁴⁷ Initially, it is worth noting that both scope and applicability are not directly addressed by the request taken verbatim from the decision IX/30. Determining the scope is nevertheless imperative in order to clarify the basis of the subsequent assessment which concentrates on issues that are considered relevant with regard to the present analysis.

owned or operated by state parties are exempted.²⁴⁸ Ships of less than 500 GT, or ships only operating in inland waters are also not covered.²⁴⁹ In contrary, the Basel Convention applies to all wastes which are subject to transboundary movement.²⁵⁰ Furthermore, the provisions of the Hong Kong Convention provide a comprehensive, ‘cradle-to-grave’ regime encompassing design, construction, operation and recycling of ships, whereas the provisions of the Basel Convention only focus on the final stage of the life cycle by addressing them only once they become waste.

Broadly speaking, the Hong Kong Convention is more specific in terms of the objects it addresses and also provides a more comprehensive regime. The Basel Convention, in contrast, is more general, i.e. less specific as regards its scope, and focuses on only one stage of the life cycle.

b) Control

The control-related provisions on the authorisation and operation of facilities and/or sites demonstrate another major difference between the two instruments. The Hong Kong Convention obliges state parties to ensure that ship recycling facilities under their jurisdiction are authorised in accordance with provisions such as Regulation 16 and its respective guidelines. Furthermore, it stipulates a number of requirements regarding the operation of ship recycling facilities in terms of management systems, procedures and techniques.²⁵¹ In contrast, the Basel Convention only requires states parties to ensure that adequate disposal facilities are available for the environmentally sound management of hazardous wastes²⁵²; therefore, it simply requires these sites be given permission to operate for this purpose by a relevant authority.²⁵³ Furthermore, although it is referred to in a number of provisions throughout the Basel Convention, the term ‘environmentally sound management of wastes’ is not defined in sufficient detail.²⁵⁴

Additionally, the Basel Convention does not require any surveys and controls similar to those under the Hong Kong Convention accompanying a ship from ‘cradle to grave’.²⁵⁵

With regard to prohibitions on import and/or export, a different picture arises: The system as established by the Basel Convention stipulates a number of

²⁴⁸ Article 3.2 HKC.

²⁴⁹ Article 3.3 HKC.

²⁵⁰ See *supra* chapter “European Ship Recycling Regulation”, A.II.1 (p. 124); exemptions for radioactive wastes according to Article 1.3 BC and wastes deriving from normal ship operations according to Article 1.4 BC are of minor relevance in the present context.

²⁵¹ Regulations 17–22 HKC.

²⁵² Article 4.2.(b) BC.

²⁵³ Article 2.5 BC.

²⁵⁴ In view of the wide array of provisions posing requirements regarding the management and operation of ship recycling facilities, the definition of ‘environmentally sound management of hazardous wastes or other wastes’ given by Article 2.8 BC cannot be considered substantial.

²⁵⁵ Regulation 10 HKC.

conditions which allow both states of import and states of export to prohibit or restrict transboundary movement of wastes.²⁵⁶ The Hong Kong Convention does not contain any provisions in this respect because its rules and provisions predominantly focus on processes and procedures instead of substance and standards.²⁵⁷ The only provisions which might be considered as permitting the prohibition of import and/or export of ships ready for recycling are those relating to the detection of violations²⁵⁸; however, these provisions are more of an enforcing than controlling nature.

Both transparency and traceability as regards the handling of hazardous wastes provide further control mechanisms. Accordingly, several provisions of the Basel Convention aim at facilitating both aspects. The information to be provided on notification²⁵⁹ as well as on the movement document however is of the greatest importance.²⁶⁰ Furthermore, the Basel Convention obliges states of import to require their disposers to notify the respective states of export of the disposing person and, in due course, of the completion of disposal as specified.²⁶¹ Hence, *ex ante* as well as *ex post*, a transparent chain of information on the status of the waste is ensured, thus providing transparency and traceability once the hazardous waste has been entered into the system. In contrast, a number of provisions of the Hong Kong Convention aim at facilitating transparency, while the aspect of traceability rather is neglected. The requirement regarding the establishment and subsequent maintenance of the inventory of hazardous materials as well as initial notification²⁶² and reporting-upon-completion²⁶³ obligations provide a few examples of provisions facilitating transparency. Aspects of traceability, on the other hand, as well as those on the safe and environmentally sound management of hazardous materials,²⁶⁴ are only addressed in provisions on the 'Ship Recycling Plan'.²⁶⁵

²⁵⁶ Articles 4.1.(a)–(c), 4.2.(e), 4.2.(g), 4.5., 4.6., 4.9. and 9 BC.

²⁵⁷ Matz-Lück, 'Safe and Sound Scrapping of "Rusty Buckets"?' The 2009 Hong Kong Ship Recycling Convention', 19 RECIEL 95 (2010), at 102–103.

²⁵⁸ Article 9.3 HKC.

²⁵⁹ Similarly to the PIC procedure of the 1998 Rotterdam Convention, Annex V A of the Basel Convention provides a list of 21 items to be provided on notification including, *inter alia*: reason for the waste export; exporter, generator and disposer of the waste; countries of export, (expected) transit and import; means of transport; designation and physical description of the waste; information relating to insurance; and estimated quantity of the waste.

²⁶⁰ Annex V B of the Basel Convention provides a list of 14 items quite similar to Annex V A; modified items however include, *inter alia*, the following: the date the transboundary movement started and signature on receipt by each person having taken charge; information on special handling requirements; type and number of packages; quantity in weight/volume; and the declaration by the generator or exporter indicating no objection from the competent authorities of all states involved.

²⁶¹ Article 6.9 BC.

²⁶² Regulation 24.2 HKC and its Appendix 6.

²⁶³ Regulation 25 HKC and its Appendix 7.

²⁶⁴ Regulation 20 HKC.

²⁶⁵ Regulation 9 HKC.

The former require the Ship Recycling Plan to contain information regarding the method of management, type and amount of materials including those identified in the inventory of hazardous materials,²⁶⁶ while the latter stipulates that waste management and disposal sites shall be identified to provide for the further safe and environmentally sound management of materials.²⁶⁷ Ultimately, these provisions may certainly indicate where and how the particular hazardous and/or other wastes have been managed and processed, but they still do not provide answers to questions of traceability for specific ship recycling operations.

c) Enforcement

It is interesting to note that the Hong Kong Convention is quite reserved on matters of enforcement.²⁶⁸ There are no provisions similar to those of the Basel Convention criminalising ‘illegal traffic’²⁶⁹ and stipulating duties of the ‘state of export’²⁷⁰ to re-import²⁷¹ or, if impracticable, a duty to have the wastes disposed of appropriately.²⁷² The only enforcement provisions of the Hong Kong Convention are general provisions relating to the detection of violations by particular ships which allow port authorities of state parties “to warn, detain, dismiss, or exclude the ship from its ports”.²⁷³ Besides, the Hong Kong Convention does not contain any provisions whatsoever to provide additional enforcement mechanisms to respond to violations or sanction illegal traffic.

Moreover, the dispute settlement regime as established by the Hong Kong Convention confirms this preliminary finding. Pursuant to Article 14, state parties “shall settle any dispute between them concerning the interpretation or application of this Convention by negotiation or any other peaceful means agreed upon by them [...]”. When considered in light of the Basel Convention provisions which stipulate that “[i]n case of a dispute between Parties as to the interpretation or application of, or compliance with, this Convention or any protocol thereto, they shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice”,²⁷⁴ several institutional weaknesses of the Hong Kong Convention become obvious. Firstly, in addition to disputes arising from matters of

²⁶⁶ Regulation 9.3 HKC.

²⁶⁷ Regulation 20.3 HKC.

²⁶⁸ See Puthucherril, *From Shipbreaking to Sustainable Ship Recycling* (2010), at 175–176.

²⁶⁹ Article 4.3 BC.

²⁷⁰ For further information on the difficulties of the Hong Kong Convention in this respect, see European Commission, ‘An assessment of the link between the IMO Hong Kong Convention for the safe and environmentally sound recycling of ships, the Basel Convention and the EU waste shipment regulation’, EU-doc. COM(2010) 88, para. 2.2.5.

²⁷¹ Article 8 BC.

²⁷² Article 9.2 BC.

²⁷³ Article 9.3 HKC.

²⁷⁴ Article 20 BC.

‘interpretation’ and ‘application’, disputes relating to ‘compliance’ are considered a possible trigger for dispute settlement procedures under the Basel Convention. Given that a drafting mistake is not probable, this might indicate ‘compliance’ to be considered a more relevant issue in the Basel Convention than for the Hong Kong Convention. This assumption is endorsed by the fact that the Hong Kong Convention does not contain any provisions for the establishment of a compliance committee or similar body—a finding somewhat mitigated by the fact that the Hong Kong Convention has not yet entered into force.²⁷⁵ Nevertheless, taking into consideration the political dynamics of a diplomatic conference in general and within the Drafting Committee/Committee of the Whole in particular, the exclusion of a particular term cannot be considered completely irrelevant.

Furthermore, the dispute settlement regime of the Basel Convention also refers to the possibility of submitting disputes to the International Court of Justice or to arbitration in accordance with conditions specifically set out in its Annex VI on Arbitration. The Hong Kong Convention, on the other hand, does not contain any further provisions or references in this respect. In the light of the aforementioned considerations, this further restraint does not however really come as a surprise.

Further complicating matters, the dispute settlement arrangement of the 2007 *Nairobi International Convention on the Removal of Wrecks*²⁷⁶ is considered ‘state of the art’.²⁷⁷ As a matter of fact, it contains a reference to the dispute settlement provisions of UNCLOS which it stipulates to be applicable *mutatis mutandis*, irrespective of the parties to the dispute being state parties to UNCLOS. A submission by Belgium, Denmark, Italy and the Republic of Korea to the Diplomatic Conference proposed a modification of the (then draft) Hong Kong Convention in this regard, which was however thwarted by states such as Vanuatu, Canada, Marshall Islands, China, Cook Islands, Panama, Turkey and the USA, with the latter two even announcing their unwillingness to sign the convention should the proposal be accepted. Due to the ‘spirit of compromise’ which IMO considers in principle more important than some (less) substantial issues, this threat ultimately defeated the proposal.

d) ‘In Their Entirety’

As mentioned above, COP 9 requested a preliminary assessment be conducted by OEWG 7 to investigate whether the Hong Kong Convention, as adopted,

²⁷⁵ A number of multilateral environmental agreements have established compliance bodies once their provisions became legally binding on their state parties.

²⁷⁶ Nairobi International Convention on the Removal of Wrecks (adopted 23 May 2007, not yet in force).

²⁷⁷ Submission by Belgium, Denmark, Italy and the Republic of Korea to the Diplomatic Conference, ‘Considerations on dispute settlement’, IMO-doc. SR/CONF/17, para. 4.

established an equivalent level of control and enforcement as that established under the Basel Convention, in their entirety.²⁷⁸

‘In their entirety’ means that both regimes have to be compared following a functional approach, i.e. employing a holistic perspective instead of a point-by-point analysis. Therefore, an assessment of the differences only provides a first step. This assessment of theoretical applicability must subsequently be complemented by an evaluation of both regimes’ practical applicability²⁷⁹ to assess whether their respective levels of control and enforcement are functionally equivalent with regard to the issue at stake. Therefore, the subsequent enquiry into the practical applicability, i.e. its ‘fitness for purpose’,²⁸⁰ as regards ship recycling is of significantly more importance.

Firstly, a clarification of its objectives is required to evaluate whether a particular regime is fit for its purpose. The Basel Convention seeks to minimise both the generation and transboundary movement of hazardous wastes as well as their environmentally sound management.²⁸¹ The primary objectives of the Hong Kong Convention, however, are the protection of both human health and environment from harm caused by ship recycling, as well as the enhancement of ship safety and the protection of human health and the environment throughout a ship’s operating life.²⁸² A first comparison of the overarching objectives of both conventions from the perspective of ship recycling results shows that the minimisation of transboundary movements of hazardous wastes, as one of the principal cornerstones of the Basel Convention, does not fit into the ship recycling context. The dramatic reduction of ship transports prior to recycling to South Asian ship recycling states²⁸³ is neither an objective at the international level, nor is it an overall tendency that ship recycling states would voluntarily agree to. It is also inconsistent with another provision of the Basel Convention requiring states parties to allow transboundary movements of (hazardous) wastes only if, *inter alia*, the wastes to be transported are required as raw materials for recycling or recovery industries in the importing state.²⁸⁴ Intended as an exception to the rule that

²⁷⁸ See supra chapter “European Ship Recycling Regulation”, A.II.4 (pp. 137).

²⁷⁹ In this context, one has to pay due regard to the fact that ‘practical applicability’ literally presupposes application in practice which can only be hypothetically assessed where a convention has not (yet) entered into force. This, however, is less an attempt at nitpicking than a *caveat* as regards difficulties arising directly from Decision IX/30: ‘Dismantling of Ships’ (27 June 2008), UN-doc. UNEP/CHW.9/39, at 56.

²⁸⁰ Personal communication with Nikos Mikelis, Senior Implementation Officer of IMO, 6 April 2010.

²⁸¹ See supra chapter “European Ship Recycling Regulation”, A.II.1 (p. 124).

²⁸² See supra chapter “The Hong Kong Convention”, C.II (p. 34).

²⁸³ In this context it is worth noting that, according to Kummer, International Management of Hazardous Wastes (1995), at 45, “a prohibition of transboundary movements of hazardous wastes in general, or from developed to developing countries in particular, was rejected [at the adoption ceremony of the Basel Convention] due to the opposition voiced by industrialized states”.

²⁸⁴ Article 4.9(b) BC.

transboundary movements ought to be minimised, this exception would apply in every single instance of a ship being brought to a South Asian ship recycling state, as all of these states are dependent upon the raw materials they recover from recycling operations.²⁸⁵ This broad applicability of an intended exception to a rule may be an indication that the regime (of which the particular rule is part) is not fit for the given purpose.

As regards regulation in general, there are, in principle, two ways of regulating particular issues: On the one hand, traditional ‘command and control’-mechanisms aim at specifically prescribing behaviour. On the other hand, market-based approaches provide economic or other incentives for a particular set of actors to behave in a specific manner.²⁸⁶ Without giving preference either approach, both types of mechanisms must address the correct group of actors. The Basel Convention addresses predominantly states of export, states of import and, to a lesser degree, states of transit.²⁸⁷ The Hong Kong Convention, on the other hand, targets flag states and recycling states. While states of import and recycling states are in the best position to effectively implement, control and enforce environmentally sound management procedures, the question arises whether states of export and flag states can provide the same results. Flag state jurisdiction clearly provides a regime with plain rules of responsibility for control and enforcement. This regime is not only in principle applicable without restrictions to the ultimate journey of a ship to its ship recycling facility, it also typically covers its whole operating life. Hence, flag state jurisdiction provides—notwithstanding its minor flaws in practice which are being compensated more and more by port state control²⁸⁸—the most efficient mechanism available to address, control and enforce ship-related standards irrespective of each ship’s current location. A different finding arises with regard to the concept of states of export.²⁸⁹ According to the Basel Convention, “‘state of export’ means a Party from which a transboundary movement of hazardous wastes or other wastes is planned to be initiated or is initiated”.²⁹⁰ An illustration of a typical sale of a ship for recycling purposes will facilitate a test of this concept: A ship currently dwelling in a port in state A which is owned by a company located in state B and flies the flag of state C is sold to a cash-buyer having its headquarters in state D who then after changing the crew and re-flagging the ship to state E subsequently delivers it to the ship recycling facility having offered the best price.²⁹¹ In this case, the label ‘state of export’ could be reasonably applied to every single state from A to E. Hence, the concept of states of export is too broad for the context of ships being sent for

²⁸⁵ See *supra* chapter “The Hong Kong Convention”, A.I (in particular p. 17).

²⁸⁶ See *supra* chapter “Introduction”, B. (pp. 7 et seq.).

²⁸⁷ See Article 2.10–2.12 BC.

²⁸⁸ See *supra* chapter “European Ship Recycling Regulation”, A.I.2 (pp. 104 et seq.).

²⁸⁹ Cf. Puthucherril, *From Shipbreaking to Sustainable Ship Recycling* (2010), at 177.

²⁹⁰ Article 2.10 BC.

²⁹¹ For further details on such a sale, see *supra* chapter “Entry-Into-Force Provision”, D.I.1.b) (pp. 69 et seq.).

recycling, thus actually being an impediment to effective control and enforcement.²⁹² Accordingly, these considerations provide another reason why the regime as established by the Basel Convention ‘in its entirety’ is not suitable for the purpose of regulating ship recycling although some of its provisions seem to be more open as regards enforcement than those of the Hong Kong Convention.

Finally, the comprehensive, ‘cradle to grave’-approach established by the Hong Kong Convention furthermore improves possibilities of control and enforcement. Increased transparency, governance and stewardship throughout the whole life cycle of ships will facilitate the implementation of standards more efficiently than straight-forward obligations which may turn out to be broad in scope but shallow in application.²⁹³ This assessment may also be consistent with the general tendency towards integrated regulatory approaches.

e) Summary

In a nutshell, the overall level of control and enforcement under the Hong Kong Convention might therefore be even higher than that established by the Basel Convention in spite of a few specific provisions that appear less efficient.²⁹⁴ Unquestionably, the Hong Kong Convention is more adequate as regards the special characteristics of ships and international shipping. For these reasons, and notwithstanding the related difficulties experienced at OEWG 7, it was hoped that COP 10 would almost certainly draw a distinction between the two regimes considerably restricting the scope of application of the Basel Convention.

²⁹² According to Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 115, the port state from which the ship departs on her last journey to the ship recycling facility must be considered state of export which would – in case it attempts to restrict the ship’s departure – eventually interfere with the exercise of navigational rights and freedoms under Article 87 UNCLOS.

²⁹³ *Ibidem*, at 118: “[...] the whole issue should not only be seen from the point of view of the dismantling process. It would be preferential if these considerations would lead to a reconsideration of the construction and outfitting of ships”; in a more general context, see Brownlie, *Principles of Public International Law*⁷ (2008), at 285: “[...] the appropriate vehicle for action [in the context of environmental problems] is the multi-lateral standard-setting convention with a focus upon a specific type of problem or a specific region”; see also Chayes/Chayes, *The New Sovereignty* (1995), at 184.

²⁹⁴ See the opinion of the European Economic and Social Committee on the European Commission’s ‘An EU strategy for better ship dismantling’, EU-doc. C 277/67, para. 4.9; cf. Puthucherril, *From Shipbreaking to Sustainable Ship Recycling* (2010), at 175–180; ultimately, however, it is worth noting that the minimisation of transboundary movements of hazardous wastes as well as the other primary objectives of the Basel Convention do not stipulate absolute obligations but rather general guidelines; see Kummer, *International Management of Hazardous Wastes* (1995), at 60; see also Wolfrum/Matz, *Conflicts in International Environmental Law* (2003), at 114–116.

5. Tenth Meeting of the Conference of the Parties to the Basel Convention (COP 10)

Unfortunately however, these hopes were not satisfied. COP 10 witnessed a considerable number of states issuing their concern with regard to the Hong Kong Convention's capability of restricting and regulating the transport of end-of-life ships to the beaches of the least developed states in the world.²⁹⁵ As a result, not only was a distinction line between the two regimes not drawn, but the plenary also adopted a decision which essentially only confirms the status quo.²⁹⁶ Accordingly, with the Basel Convention still applying to end-of-life ships a situation is perpetuated which sees an unfit regime theoretically in force while the ratification process of the Hong Kong Convention has just become more difficult and, for the time being,²⁹⁷ almost insurmountable. This situation appears to be tragic as the work of IMO and particularly MEPC as well as that of all the other stakeholders involved in the development of the Hong Kong Convention—which eventually also included representatives of the Basel Convention Secretariat—is about to be rendered irrelevant.

III. Other International Instruments

A number of additional international instruments complement the legal framework of the Hong Kong Convention.

1. 1972/1996 London Convention

The *London Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter*,²⁹⁸ which is planned to be replaced by its 1996 Protocol²⁹⁹

²⁹⁵ For an illustrative remark by Harrison in this respect, see *supra* p. 132; see also *ibidem*, Making the law of the sea (2011), at 240: "The competing activities of international institutions are by no means accidental. Often it is a result of states attempting to exploit the overlap between the mandates of international institutions in an attempt to influence the content of the proposed rules or standards".

²⁹⁶ Decision BC-10/17: 'Environmentally sound dismantling of ships' (21 October 2011), Annex 1 to UN-doc. UNEP/CHW.10/28.

²⁹⁷ It was also decided to establish a contact group headed by Ms. Claude Wohrer who had already prepared the preliminary assessment in order to continue considering the relationship between the two regimes; see UN-doc. UNEP/CHW.10/28, paras. 133–134.

²⁹⁸ London Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter (signed 13 November 1972, entered into force 30 August 1975).

²⁹⁹ Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (signed 17 November 1996; entered into force 24 March 2006).

after successful ratification,³⁰⁰ is an international instrument which aims at preventing “the pollution of the sea by the dumping of waste and other matter that is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea”.³⁰¹ According to Article 1.4.1 of the 1996 Protocol, which slightly modifies and augments Article 3.1(a) of the London Convention, ‘dumping’ *inter alia* refers to “any deliberate disposal into the sea of vessels, aircraft, platforms or other man-made structures at sea”, thus including the ‘abandonment’ of ships at sea, with the term ‘sea’ referring to “all marine waters other than the internal waters of States [...]”.³⁰² With particular regard to the exclusion of internal waters from the regulatory scope of the London Convention, Article 7.2 of the 1996 Protocol now provides for a discretionary ‘opting-in’ procedure by which parties may choose to apply the provisions of the convention also in their internal marine waters.³⁰³ Therefore, the London Convention only applies to the abandonments of ships within internal waters where the individual state has ‘opted-in’;³⁰⁴ where a party to the London Convention has not ratified the 1996 Protocol, the abandonment of a vessel in her internal waters is not governed by the original convention. Additionally, the fact that no state has yet ‘opted in’ means that currently the abandonment of ships in internal waters is not subject to the 1972/1996 regime. Accordingly, the London Convention is not directly applicable to ship recycling. The convention and its protocol may rather be considered as a complement to ship recycling initiatives insofar as both abandoning ships and dumping them on the high sea still is considered by some actors a means to manage ships at the end of their final life

³⁰⁰ With regard to the replacement procedure, see its Article 23: “This Protocol will supersede the Convention as between Contracting Parties to this Protocol which are also Parties to the Convention”; however, this seems to be rather ‘pie in the sky’ at the moment, as states tend to continue ratifying the London Convention instead of valuating its 1996 Protocol; since the adoption of the latter, the following ten states have ratified the 1972 London Convention: Azerbaijan (1 July 1997), Bolivia (10 June 1999), Bulgaria (25 January 2006), Equatorial Guinea (21 January 2004), Islamic Republic of Iran (13 January 1997), Peru (7 May 2003), Saint Vincent & the Grenadines (24 October 2001), Sierra Leone (12 March 2008), Syrian Arab Republic (6 May 2009), and the United Republic of Tanzania (28 July 2008); see Annex 1 to the Report of the Secretary-General on the Status of the London Convention 1972 (31 August 2009), IMO-doc. LC 31/2.

³⁰¹ Article I of the original 1972 LC.

³⁰² See Article III.3 LC.

³⁰³ The London Convention did not provide such an ‘opting-in’ procedure; the institutional incorporation of an opting-in possibility responds, *inter alia*, to the adoption of a resolution by a consultative meeting of the parties on the application of the ‘precautionary principle’ in 1991; for further information, see Resolution LDC.44(14): The Application of a Precautionary Approach in Environmental Protection within the Framework of the London Dumping Convention, Annex 2 to IMO-doc. LDC 14/16.

³⁰⁴ As a matter of fact, however, no state has yet ‘opted-in’; see Annex 3 to the Report of the Secretary-General on the Status of the 1996 Protocol to the London Convention 1972 (31 August 2009), IMO-doc. LC 31/2/1.

cycle.³⁰⁵ Also, it must be noted that the European Union is neither a contracting party of the London Convention,³⁰⁶ nor of its 1996 Protocol.^{307,308}

2. 1998 Rotterdam Convention

The *Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*³⁰⁹ promotes a regulatory regime concerned with transboundary movements of particular hazardous chemicals. Its principal mechanism, i.e. the prior informed consent (PIC) procedure,³¹⁰ rests upon a concept of ‘shared responsibility’:

‘Prior informed consent’ (PIC) refers to the principle that international shipment of a chemical that is banned or severely restricted in order to protect human health or the environment should not proceed without the agreement, where such agreement exists, or contrary to the decision, of the designated national authority in the importing country.³¹¹

The Rotterdam Convention established the PIC procedure to be applied on a designated list of chemicals listed in Annex III to the convention. The PIC procedure therefore serves as an institutional safeguard

³⁰⁵ Kiss, ‘The International Control of Transboundary Movement of Hazardous Waste’, 26 Tex. Int’l L. J. 521 (1991), at 523; Birnie/Boyle/Redgwell, *International Law and the Environment*³ (2009), at 466–472.

³⁰⁶ See Annex 1 to the Report of the Secretary-General on the Status of the London Convention 1972 (2 October 2008), IMO-doc. LC 30/2.

³⁰⁷ For further information, see the homepage of the Office for the London Convention and Protocol, <<http://www.londonprotocol.imo.org/>> accessed 31 January 2012.

³⁰⁸ It is however worth noting that the European Union has ratified the 1976 Convention for the Protection of the Mediterranean Sea against Pollution (Barcelona Convention) and the Protocol for the Prevention of Pollution by Dumping from Ships and Aircraft (Barcelona Protocol) the latter of which reaffirms the provisions of the 1972/1996 London Convention at regional level; see Council Decision 77/585/EEC of 25 July 1977 concluding the Convention for the Protection of the Mediterranean Sea against Pollution and the Protocol for the Prevention of the Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft; see further Council Decision 1999/802/EC of 22 October 1999 on the Acceptance of Amendments to the Convention for the Protection of the Mediterranean Sea against Pollution and to the Protocol for the Prevention of Pollution by Dumping from Ships and Aircraft (Barcelona Convention).

³⁰⁹ Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (adopted 11 September 1998, entered into force 24 September 2004).

³¹⁰ Redgwell, ‘Regulating Trade in Dangerous Substances: Prior Informed Consent under the 1998 Rotterdam Convention’, in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), 75, 81–82.

³¹¹ See para. 1(g) of decision 15/30 of the Governing Council of UNEP (25 May 1989).

[...] to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm and to contribute to their environmentally sound use, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.³¹²

This convention is of particular relevance in the ship recycling context as it serves as an example of a specific set of relevant principles and concepts, such as prior informed consent, which have been agreed upon at the international level regarding transboundary trade with certain chemicals and pesticides. Hence, these considerations might also be relevant with regard to ship recycling, especially if one considers the principal PIC procedure as a means of safeguarding states' sovereignty.

3. OECD's Waste Control System

As "an economic grouping of industrialized states, not a UN agency",³¹³ the Organisation for Economic Co-operation and Development (OECD) aims to promote growth, support less-developed states and facilitate world trade, while at the same time recognising state economic interdependency.³¹⁴ The OECD has developed an environmental programme and established an Environment Committee whose task is, *inter alia*, to conduct analyses of national environment policies and provide guidelines and recommendations on environmental principles.³¹⁵ The OECD approach, e.g. in the case of the Principles of Good Laboratory Practice,³¹⁶ is based on the participation of a variety of different stakeholders, such as environmental non-governmental organisations as well as industry representatives, in the process of establishing and reviewing principles and guidelines.³¹⁷ As such, it is considered a typical example of 'network governance'.

³¹² Article 1 of the Rotterdam Convention.

³¹³ Birnie/Boyle/Redgwell, *International Law and the Environment*³ (2009), at 83.

³¹⁴ *Ibidem*, at 83.

³¹⁵ It is worth noting in this context that the OECD started defining the 'Polluter Pays' principle as early as 1972 in order to "internalize the economic costs of pollution control, clean-up and protection measures, and to ensure that governments did not distort international trade and investment by subsidizing these environmental costs"; see Birnie/Boyle/Redgwell, *International Law and the Environment*³ (2009), at 322; see also Kingsbury, 'Global Environmental Governance as Administration – Implications for International Law', in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 63, at 79–80.

³¹⁶ OECD Principles on Good Laboratory Practice (as revised in 1997), OECD-doc. ENV/MC/CHEM(98)17.

³¹⁷ Kingsbury, 'Global Environmental Governance as Administration – Implications for International Law', in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 63, at 80.

In this context, the OECD has also been developing waste-related policies and tools,³¹⁸ with a particular focus on the following four pillars: sustainable materials management, environmentally sound management of waste, transboundary movements of waste, and waste prevention and minimisation.³¹⁹ In the field of ship recycling, both the control of transboundary movements of waste and the environmentally sound management of waste are of utmost relevance. Transboundary movement has been controlled within the OECD with a specific emphasis on movements of wastes destined for recovery operations. This control system aims at facilitating trade of recyclable waste in an environmentally sound and economically efficient manner.³²⁰ Environmentally sound management of waste has been on the agenda of the OECD for quite some time; however, the first decision in this respect was only adopted in June 2004.³²¹ Reasons for doing so included, *inter alia*, the growing concern that although being considered one of the fundamental principles of international waste management, there was no clear and common definition of ‘environmentally sound management of waste’. This, in turn, had led to great variations and implementation difficulties within the member states of the OECD.³²² Another consequence of this discrepancy was that facilities with sub-standard procedures were able to offer highly competitive prices, hence providing strong incentives within the OECD to choose lower-standard facilities.³²³

For these reasons, in the final years of the twentieth century, the OECD member states started to develop a set of guidelines for the environmentally sound management of waste. Basically, the objectives of these guidelines were three-fold: firstly, to provide a common knowledge base for the environmentally sound management of waste; secondly, to achieve a level playing field among the OECD member states; and finally, to ensure a standard for environmentally sound waste management within the member states of the OECD.³²⁴ Ultimately, the fact that the OECD Council decision C(2001)107/final had been made mandatory for EU member

³¹⁸ According to Article A.1 of the OECD Decision C(2001)107/FINAL of 21 May 2002, “wastes are substances or objects, other than radioactive materials covered by other international agreements, which:

- (i) are disposed of or are being recovered; or
- (ii) are intended to be disposed of or recovered; or
- (iii) are required, by the provisions of national law, to be disposed of or recovered” (emphasis omitted).

³¹⁹ See the website of the OECD’s Environment Directorate on ‘Resource productivity and waste’, <<http://www.oecd.org/>> accessed 31 January 2012.

³²⁰ Chapter I.2 of OECD Council Decision C(2001)107/FINAL (21 May 2002).

³²¹ OECD Council Decision C(2004)100 (9 June 2004).

³²² See the website of the OECD’s Environment Directorate on Environmentally Sound Management of Waste, <www.oecd.org/env/waste/esm> accessed 31 January 2012.

³²³ In this context, see Kummer, *International Management of Hazardous Wastes* (1995), at 6.

³²⁴ OECD, ‘Guidance Manual for the Implementation of the OECD Recommendation C(2004)100 on Environmentally Sound Management (ESM) of Waste’ (2007), at 7.

states through the Waste Shipment Regulation means that the waste control system as established by the OECD is equally important for EU initiatives in the field of ship recycling.

4. International Standards and Guidelines

A number of standardisation organisations have been providing sets of relevant international and technical instruments, thus *inter alia* contributing to “harmonization of environmental standards, primarily by facilitating corporate behavior changes”.³²⁵ The most well-known standards are those developed and issued by the International Organization for Standardization (ISO). It uses a similar procedure to develop standards, guidelines and related information as the OECD and may therefore also be labelled an instance of ‘network governance’.³²⁶ For ship recycling, the series of standards under ISO 9.000, ISO 14.000, and ISO 30.000 are of particular relevance.

The ISO 9.000 series provides guidance and specifies requirements for a quality management system. The ISO 14.000 series provides guidelines and requirements for environmental management systems with the ISO 14.001 standard being the principal and best-known environmental management standard.³²⁷ Most importantly, the ISO 30.000 series is particularly aimed at ship recycling facilities, specifically addressing the whole process of ship recycling from the ship’s arrival at a ship recycling facility until the final disposal of the recovered waste.³²⁸ It is therefore not surprising that the ISO 30.000 standard currently provides the highest and most specific standard, particularly due to the fact that all other standards are generic, i.e. not designed specifically for the particularities of the ship recycling industry.³²⁹

Furthermore, a European Union Eco-Management and Audit Scheme (EMAS) has been providing a voluntary management tool for companies to evaluate, report and improve their environmental performance since 1995.³³⁰ In 2001, EMAS and

³²⁵ Yang/Percival, ‘The Emergence of Global Environmental Law’, 36 Ecology L.Q. 615 (2009), at 639.

³²⁶ See supra chapter “European Ship Recycling Regulation”, A.III.3 (pp. 150 et seq.).

³²⁷ For further references, see Yang/Percival, ‘The Emergence of Global Environmental Law’, 36 Ecology L.Q. 615 (2009), at 640.

³²⁸ The ISO 30.000:2009 standard specifically addresses ship recycling management systems, ISO 30.003:2009 establishes requirements for bodies providing audit and certification of ship recycling management, ISO 30.002:2010 states guidelines for the selection of ship recyclers, ISO 30.007:2010 proposes measures to prevent asbestos emission and exposure during ship recycling operations, ISO/PAS 30.004:2011 establishes guidelines for the implementation of ISO 30.000; for further information in this regard, see the homepage of ISO, <<http://www.iso.org/>> accessed 31 January 2012.

³²⁹ See Garfield, ‘Trade-body advisor pushing for breakers to comply with ISO standards’, Tradewinds, 5 November 2010, at 14.

³³⁰ Regulation (EEC) No 1836/93 of 29 June 1993 allowing voluntary participation by companies in the industrial sector in a Community eco-management and audit scheme; Regulation (EC) No 761/2001 of the European Parliament and of the Council of 19 March 2001 allowing voluntary participation by organisations in a Community eco-management and audit scheme (EMAS).

ISO 14.001 were considered equivalent standards. As late as 2009, EMAS was revised and has since been available for use by companies outside the European Union.³³¹

IMO has also developed a set of pertinent guidelines. On the basis of the *Industry Code of Practice on Ship Recycling* the relevant body of IMO developed the recommendatory *IMO Guidelines on Ship Recycling*,³³² with the major innovation of the green passport concept, which has been taken as a blueprint for establishing the inventory of hazardous materials in the Hong Kong Convention. Furthermore, ILO, the labour-related counterpart of IMO, published its *Safety and Health in Shipbreaking: Guidelines for Asian countries and Turkey*³³³ in 2004. Their objective was to assist national authorities and companies in the implementation of other relevant ILO standards and guidelines in order to improve the management of occupational safety and health issues. Additionally, as early as 2002, the Basel Convention's Technical Working Group developed the *Technical Guidelines for the Environmentally Sound Management for Full and Partial Dismantling of Ships*.³³⁴ While focussing on the environmentally sound management (ESM) of hazardous materials and wastes during the ship recycling process, these guidelines are directed at countries in order to assist them in upgrading existing, and/or establishing new compliant ship recycling facilities.

In addition to these instruments, the Hong Kong Convention is accompanied by a number of guidelines, with the *Guidelines for Safe and Environmentally Sound Ship Recycling* having the greatest relevance to the current context.³³⁵ As with the ISO 30.000 standard series, they integrate environment, health and safety aspects. Besides the one mentioned, the other concomitant guidelines deal with issues such as the development of the inventory of hazardous materials, surveys and certifications, inspections of ships, the authorisation of ship recycling facilities, and the development of the ship recycling plan as well as other issues to be identified by IMO's MEPC.³³⁶ Notwithstanding their legal character as strictly

³³¹ Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), repealing Regulation (EC) No 761/2001 and Commission Decisions 2001/681/EC and 2006/193/EC; for new developments in this respect, see *infra* chapter "European Ship Recycling Regulation", B.IV.1 (pp. 195).

³³² IMO Assembly resolution, 'IMO Guidelines on Ship Recycling' (5 December 2003), Annex to IMO-doc. A 23/Res.962.

³³³ See *supra* chapter "The Hong Kong Convention", note 84.

³³⁴ Decision VI/24 (13 December 2002), adopted at the sixth meeting of the Conference of Parties to the Basel Convention, UN-doc. UNEP/CHW.6/40, at 138; in this context, see *supra* chapter "The Hong Kong Convention", note 84.

³³⁵ See Conference Resolution 4: 'Future Work by the Organization Pertaining to the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009', IMO-doc. SR/CONF/46, at 10.

³³⁶ See Conference Resolution 4: 'Future Work by the Organization Pertaining to the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009', IMO-doc. SR/CONF/46, at 10.

non-binding instruments, they indeed do carry substantial weight with regard to both implementation and interpretation of the Hong Kong Convention. Their significance for implementing the Hong Kong Convention is indicated by the ‘invitation’ addressed to the IMO³³⁷ by the Diplomatic Conference on Ship Recycling to adopt the guidelines “as soon as practicable, and in any case before the entry into force of the [Hong Kong] Convention, with a view to facilitating global and uniform implementation of the [Hong Kong] Convention”.³³⁸ This resolution means that the guidelines are considered a crucially essential tool in the process of putting the Hong Kong Convention into practice. Such an understanding is furthermore endorsed by another conference submission which highlights that the adoption of the Hong Kong Convention and the ‘associated’ guidelines will provide a “complete set of technical standards”³³⁹ to be applied until entry-into-force. Hence, by indicating that the Hong Kong Convention would be incomplete without the associated guidelines, the importance of the latter to the former is clearly emphasised. The guidelines’ relevance for interpretation can first and foremost be attributed to the Hong Kong Convention explicitly referring to the guidelines in various articles and regulations,³⁴⁰ thereby displaying a limited framework approach and providing a further example of the ever-growing importance of soft law in the development of international law.³⁴¹

There are, therefore, a vast range of different standards and guidelines, produced by a considerable number of sources that seek to regulate the process of ship recycling. While some of these standards have parity with each other, some are too general or too specific to be validly compared. At the time of writing, the ISO 30.000 series, along with the newly developed IMO guidelines accompanying the Hong Kong Convention, provide the most up-to-date standards.

³³⁷ In this context, see Article 2 of the IMO Convention: “The functions of the Organization shall be consultative and advisory”.

³³⁸ Conference Resolution 4: ‘Future Work by the Organization Pertaining to the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009’, IMO-doc. SR/CONF/46, at 10.

³³⁹ Submission by the IMO Secretariat to the Diplomatic Conference, ‘Draft Conference resolution on early implementation of the technical standards of the International Convention for the Safe and Environmentally Sound Recycling of Ships prior to its entry into force’, IMO-doc. SR/CONF/8, at 1.

³⁴⁰ See, e.g., Articles 8 and 13 as well as Regulations 5, 9–11, 14–20 and 22 HKC.

³⁴¹ See Bothe, ‘Legal and Non-Legal Norms – A Meaningful Distinction in International Relations?’, 11 N.Y.I.L. 65 (1980), at 70–79; Dupuy, ‘Soft Law and the International Law of the Environment’, 12 Mich. J. Int’l L. 420 (1991), at 431–435; Frowein, ‘The Internal and External Effects of Resolutions by International Organisations’, 49 ZaöRV 778–790 (1989); Klabbers, ‘The Redundancy of Soft Law’, 65 Nordic J. Int’l L. 167 (1996), at 177–179; idem, ‘The Undesirability of Soft Law’, 67 Nordic J. Int’l L. 381–391 (1998), offers an even more sceptical view in this regard; for an eventually positive account, see Birnie/Boyle/Redgwell, *International Law and the Environment*³ (2009), at 35–36: “The soft-law approach thus allows states to tackle a problem collectively at a time when they do not want too strictly to shackle their freedom of action. [...] Despite the fact that states retain control over the degree of commitment, the very existence of such an instrument encourages the trend towards hardening the international legal order”.

5. Summary

Many international instruments line the path of ship recycling regulation. While some of them—such as UNCLOS primarily in terms of its jurisdictional framework and the Basel Convention due to its binding obligations *de lege lata* with regard to the transport of ‘waste’—actually have legally binding effect on prescriptive and enforcement-related European Union legislation, others do not have such direct implications. Irrespective of their legal nature or their applicability to European regulatory ship recycling efforts, they, as a whole, provide guidance on internationally accepted principles such as the environmentally sound management of wastes, on internationally accepted mechanisms such as the prior informed consent procedure and on internationally accepted practical formulas such as the IMO guidelines accompanying the Hong Kong Convention. While not all of these may ultimately be relevant to European initiatives in the field of ship recycling, they still provide some clarification, thus potentially governing and/or reducing individual powers of discretion. Therefore, some of these ideas and concepts will be referred to in the following sections outlining European ship recycling initiatives.

B. European Ship Recycling Initiatives

In general, regulatory efforts of the EU in the maritime context have to be seen in the broader context of the communication titled ‘An Integrated Maritime Policy for the European Union’.³⁴² The key idea is that “all matters relating to Europe’s oceans and seas are interlinked, and that sea-related policies must therefore [be] develop[ed] in a joined-up way”.³⁴³ This necessitates an integrated, intersectoral approach requiring “reinforced cooperation and effective coordination of all sea-related policies at the different decision-making levels”.³⁴⁴ This intersectoral approach is therefore not only dependent on concerted efforts by different and often disagreeing stakeholders such as the European Commission’s DG MOVE and DG Environment but also requires—for reasons of efficiency—a mix of mutually interdependent instruments and mechanisms.³⁴⁵ Furthermore, European ship recycling initiatives have to consider a minimum of three additional aspects; the need for the harmonised implementation of relevant guidelines issued by international bodies such as the IMO, the particularly difficult problem of enforcement

³⁴² European Commission, ‘An Integrated Maritime Policy for the European Union’, EU-doc. COM(2007) 575.

³⁴³ Ibidem, para. 1.

³⁴⁴ Ibidem, para. 1.

³⁴⁵ See also infra chapter “European Ship Recycling Regulation”, note 604 and accompanying text (p. 195).

with a view to ships flying the flags of non-European states, and the need to coordinate member states' individual political activities.³⁴⁶

I. Objectives and Scope

The overall objective of European initiatives in the field of ship recycling is to “contribute to safer and more environmentally sound treatment of end-of-life ships worldwide”³⁴⁷ which raises questions of scope and competency, especially with regard to its territorial range.

1. Scope of Application

European regulatory measures must not extend the territorial range of European Union competencies as laid out in the Lisbon Treaty on the Functioning of the European Union (TFEU). Therefore, the territorial scope of the treaty defined in Articles 52 and 355 TFEU³⁴⁸ also limits the scope of direct regulatory measures available to the European Union in the field of ship recycling. This means that ships, in principle, cannot be subjected to EU law once they have left European waters. This being the rule, there is still one fundamental exemption: As the European Court of Justice began specifying in several ground-breaking judgments as early as the 1970s, European Union (then EEC) law may be applicable beyond its territory where, firstly, public international law foresees member states' jurisdiction, and, secondly, the European Union (then Community) can exercise its rights under the Treaty on the Functioning of the European Union (TFEU).³⁴⁹ Initially prevalent in the field of European competition law,³⁵⁰ the same approach also applies to environmental legislation.³⁵¹ This exemption is particularly important in the field

³⁴⁶ Schult, *Das völkerrechtliche Schiffssicherheitsregime* (2005), at 356.

³⁴⁷ See European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 1.

³⁴⁸ Article 52.1 TFEU explicitly enumerates those states to which the treaty is directly applicable; the particular territorial scope is subsequently specified by its Article 355 which partially excludes a list of overseas countries and territories from its scope of application while modifying its content for a given set of others.

³⁴⁹ See, *inter alia.*, ECJ, Joined Cases C-3/76, C-4/76 and C-6/76, *Cornelis Kramer and others* [14 July 1976], paras. 30/33, 44/45; ECJ, Case C-258/89, *Commission of the European Communities v Kingdom of Spain* [25 July 1991], paras. 7–14; ECJ, Case C-405/92, *Etablissements Armand Mondiet SA v Armement Islais SARL* [24 November 1993], paras. 12–15.

³⁵⁰ See Basedow, ‘International Antitrust: From Extraterritorial Application to Harmonization’, 60 *La. L. Rev.* 1037 (2000), at 1040–1041.

³⁵¹ According to Ormond, ‘Enforcing EU environmental law outside Europe?’, *ELNI Review* 13 (1/2009), at 14, the substantial expansion of European Union initiatives focussing on global environmental problems is just an example of the promotion of measures at the international

of shipping for an obvious reason: As mentioned above,³⁵² flag state jurisdiction provides just such an example of extra-territorial jurisdiction. This means that a particular state's law is applied and its jurisdiction exercised on board its ships, even if they are located somewhere beyond this state's territories. Hence, given the fact that public international law clearly foresees member states' jurisdiction in this respect, it raises the question of whether the EU can exercise its rights under the TFEU.³⁵³ Where these competencies have been conferred to the European Union, EU law would be applicable, regardless of whether the ship is located within member states' waters. Additionally, as mentioned above,³⁵⁴ via port state jurisdiction, European Union legislation could also be made applicable to all ships of foreign registries calling at ports of EU member states. Hence, the only remaining question is whether the EU is legally competent to initiate regulatory measures.

2. Competencies

In order to adopt regulatory measures in the field of ship recycling, the European Union must be legally competent to do so, i.e. the relevant competencies must have been conferred upon it by its member states.³⁵⁵ In areas not falling within its exclusive competence, the European Union is also only allowed to adopt measures if the principle of subsidiarity is complied with.³⁵⁶ Furthermore, the principle of proportionality governs both the content and form of Union action so that it "shall not exceed what is necessary to achieve the objectives of the Treaties".³⁵⁷ This then raises the question of whether there is a legal basis for EU measures in the field of ship recycling and, if so, where.

As a preliminary point, the choice of the legal basis for a particular European Union measure has to be based on "objective factors which are amenable to judicial

level to deal with regional or worldwide environmental problems, as requested by Article 191.1 TFEU (ex-Article 174.1 EC).

³⁵² See supra chapter "European Ship Recycling Regulation", A.I.2 (pp. 104 et seq.).

³⁵³ Ormond, 'Enforcing EU environmental law outside Europe?', *ELNI Review* 13 (1/2009), at 15.

³⁵⁴ See supra chapter "European Ship Recycling Regulation", A.I.2 (in particular pp. 107 et seq.).

³⁵⁵ See Article 5.2 EUV: "Under the principle of conferral, the Union shall act only within the limits of the competences conferred upon it by the Member States in the Treaties to attain the objectives set out therein. Competences not conferred upon the Union in the Treaties remain with the Member States"; see also Hobe, *Europarecht*⁵ (2010), at 44–45; Haratsch/Koenig/Pechstein, *Europarecht*⁷ (2010), at 75–79.

³⁵⁶ See Article 5.3 EUV: "Under the principle of subsidiarity, in areas which do not fall within its exclusive competence, the Union shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level. [...]"; see also Jarass, 'EG-Kompetenzen und das Prinzip der Subsidiarität nach Schaffung der Europäischen Union', *EuGRZ* 1994, 209–215.

³⁵⁷ See Article 5.4 EUV.

review, including in particular the aim and content of the measure.”³⁵⁸ In this respect, the European Court of Justice (ECJ) has always followed a rather functional approach in determining the legal basis of a legislative measure.³⁵⁹

Analyses of European Union measures reveal that they rarely ever pursue a single aim or objective³⁶⁰; typically, they pursue several purposes at the same time, with one being the predominant purpose and the others with merely incidental effects. In these cases, the measure must be based on a single basis, as required by its main component.³⁶¹ In exceptional circumstances, however, European Union measures pursue several main objectives at least two of which are inextricably linked. If no single purpose is inferior, or “secondary and indirect in relation to the other”,³⁶² then the measure must be based upon the various corresponding legal provisions.³⁶³

In the present situation, and with special consideration for the Hong Kong Convention,³⁶⁴ European Union measures may thus be based upon provisions for

³⁵⁸ See ECJ, Case C-411/06, *Commission v Parliament and Council* [08 September 2009], para. 45; ECJ, Case C-155/07, *Parliament v Council* [06 November 2008], para. 34; ECJ, Case C-178/03, *Commission v Parliament and Council* [10 January 2006], para. 41; ECJ, Case C-300/89, *Commission v Council* [11 June 1991], para. 10.

³⁵⁹ ECJ, Case C-42/97, *Parliament v Council* [23 February 1999], para. 36: “It must be pointed out that the wording of the title of a measure cannot by itself determine its legal basis [...]”.

³⁶⁰ In this context, see Lavranos, ‘Revisiting the “predominant aim” concept for determining the correct legal basis’, 2 Eur. L. Rep. 59 (2010), at 61.

³⁶¹ See ECJ, Case C-411/06, *Commission v Parliament and Council* [08 September 2009], para. 46; ECJ, Case C-178/03, *Commission v Parliament and Council* [10 January 2006], para. 42; ECJ, Case C-155/07, *Parliament v Council* [06 November 2008], para. 34; ECJ, Case C-36/98, *Spain v Council* [30 January 2001], para. 59; ECJ, Case C-211/01, *Commission v Council* [11 September 2003], para. 39; ECJ, Case C-338/01, *Commission v Council* [29 April 2004], para. 55; ECJ, Case C-42/97, *Parliament v Council* [23 February 1999], paras. 39–40; ECJ, Case C-155/91, *Commission v Council* [17 March 1993], paras. 19–21.

³⁶² ECJ, Case C-211/01, *Commission v Council* [11 September 2003], para. 40.

³⁶³ See ECJ, Case C-411/06, *Commission v Parliament and Council* [08 September 2009], para. 47; ECJ, Case C-178/03, *Commission v Parliament and Council* [10 January 2006], para. 43; ECJ, Case C-336/00, *Huber* [19 September 2002], para. 31; ECJ, Case C-281/01, *Commission v Council* [12 December 2002], para. 35; ECJ, Case C-300/89 *Commission v Council* [11 June 1991], paras. 13, 17; ECJ, Case C-165/87, *Commission v Council* [27 September 1988], paras. 11–12.

³⁶⁴ Because both the aim and content of the measure to be adopted ultimately determine its legal basis, an examination of possible legal bases must therefore commence with the respective measure itself; for the sake of clarity and assuming that regulatory measures both in the European Union and internationally will develop a certain synchronised standard, the question of relevant legal bases for European Union measures will be examined with a view to the mechanisms of the Hong Kong Convention in general, and with a specific view to its transposition as a whole; nonetheless, it should be remembered at this preliminary stage that the decision approving an international convention on behalf of the European Union and the latter’s regulatory transposition into European Union legislation do not necessarily have exactly the same legal bases: the less the convergence of the international convention and subsequent European Union measures, the more additional provisions must be cited as legal bases for the adoption of implementing European Union measures; see ECJ, Case C-178/03, *Commission v Parliament and Council* [10 January 2006], para. 46–47, 50.

the protection of the environment, provisions aiming at improving the working environment and provisions on the safety of transport at sea.³⁶⁵ All these fields are subject to the principle of ‘shared competency’, i.e. member states cannot exercise their competence in areas where the European Union has done so.³⁶⁶ Accordingly, the principle of subsidiarity has to be taken into consideration as well.

First of all, measures in this field obviously pursue the objective of protecting the environment. Consequently, European regulatory measures, at least in part, may be validly based upon Article 191.1 TFEU (ex-Article 174.1 EC). This provision states that

Union policy on the environment shall contribute to pursuit of the following objectives:

- preserving, protecting and improving the quality of the environment,
- protecting human health,
- prudent and rational utilisation of natural resources,
- promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.

³⁶⁵ In this respect, Article 207 TFEU (ex-Article 133 EC) relating to the Common Commercial Policy could additionally be taken into consideration; an individual legal action has been put forward by the European Commission with regard to Regulation (EC) No 1013/2006 on shipments of waste before the European Court of Justice (ECJ), but has been dismissed by the latter on the grounds of the environmental prevalence of the regulation in question; see ECJ, Case C-411/06, *Commission v Parliament and Council* [08 September 2009]; according to the ECJ’s settled case-law, even a broad interpretation of the scope of the common commercial policy cannot in principle call into question a particular measure’s predominant environmental purpose; if it could, it “[...] would effectively render the specific provisions of the Treaty concerning environmental protection policy largely nugatory, since, as soon as it was established that Community action was liable to have repercussions on trade, the envisaged agreement would have to be placed in the category of agreements which fall within commercial policy”; ECJ, Opinion 2/00 [6 December 2001], para. 40; see also ECJ, Case C-411/06, *Commission v Parliament and Council* [8 September 2009], para. 70; hence, an individual European Union measure falls within the exclusive competence provided for in Article 207 TFEU “[...] only if it relates specifically to international trade in that it is essentially intended to promote, facilitate or govern trade and has direct and immediate effects on trade in the products concerned”; ECJ, Case C-347/03, *Regione autonoma Friuli-Venezia Giulia and ERSa* [12 May 2005], para. 75; this, however, is clearly not the situation with regard to European Union measures in the field of ship recycling, taking into consideration the objectives and the content of the Hong Kong Convention: its objectives, the title and the vast majority of recitals to the Hong Kong Convention explicitly or indirectly refer to and reiterate its environmental objective, while trade is not mentioned at all; as regards the content of the Hong Kong Convention, it is evident that it aims primarily at protecting human health and the environment against adverse effects caused by ship recycling as stated in Article 1.1; accordingly, a European Union regulation implementing obligations similar to those under the Hong Kong Convention would not contain sufficient elements of the common commercial policy as to justify recourse to Article 207 TFEU.

³⁶⁶ See Article 2.2 TFEU: “When the Treaties confer on the Union a competence shared with the Member States in a specific area, the Union and the Member States may legislate and adopt legally binding acts in that area. The Member States shall exercise their competence to the extent that the Union has not exercised its competence. The Member States shall again exercise their competence to the extent that the Union has decided to cease exercising its competence”.

Secondly, according to the general objectives of the ‘EU strategy for better ship dismantling’,³⁶⁷ European Union measures in this respect also aim at improving the ship recycling working environment in order to protect workers’ health and safety. For this reason, Article 153.1 TFEU (ex-Article 137 EC) may provide a valid legal basis as well.

Finally, provisions on transport policy and related safety issues as contained in Articles 99, 91 and 100.2 TFEU (ex-Articles 70, 71 and 80.2 EC) could also be relevant in this context, as they stipulate specific competencies with regard to measures improving the safety of transport at sea.³⁶⁸

A preliminary comparison between these provisions however results in an immediate objection to Article 153.1 TFEU: The listed fields in which the European Union shall support and complement the activities of member states according to this article have a genuinely Eurocentric focus. Principal objectives of this part of the TFEU are, according to Article 151 TFEU (ex-Article 136 EC), “the promotion of employment, improved living and working conditions, [...], proper social protection, dialogue between management and labour, the development of human resources with a view to lasting high employment and the combating of exclusion”. As revealed in Article 151 paras. 2 and 3 TFEU, these measures however are exclusively directed at EU member states. Precarious ship recycling operations are however largely conducted outside the European Union. The articles on the environment and transport policy, on the other hand, also manifest their international awareness by requiring the European Union and its member states to “cooperate with third countries and with the competent international organizations”³⁶⁹ in the pursuit of environmental objectives, and by stipulating the obligation of the European Parliament and the Council to lay down “common rules applicable to international transport to or from the territory of a Member State [...]”.³⁷⁰

³⁶⁷ European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 4.

³⁶⁸ With regard to the provisions of the EC Treaty, see Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 15; it should be pointed out that Article 100.1 TFEU (ex-Article 80.1 EC) primarily restricts the transport provisions to inland transport, thus excluding maritime transport issues; however, according to Article 100.2 TFEU (ex-Article 80.2 EC), “[t]he European Parliament and the Council, acting in accordance with the ordinary legislative procedure, may lay down appropriate provisions for sea and air transport.”; eventually, Article 100.2 TFEU only has the function to point out that the specific provisions relating to the common transport policy will not automatically apply to maritime transport as well; in this context, see, e.g., ECJ, Case C-440/05, *Commission of the European Communities v European Parliament*, para. 58: “Since Article 80(2) EC does not lay down any explicit limitations as to the nature of the specific common rules which the Council may adopt on that basis in accordance with the procedural provisions laid down in Article 71 EC, the Community legislature has broad legislative powers under Article 80(2) EC and is competent [...] to lay down, inter alia, ‘measures to improve transport safety’ and ‘any other appropriate provisions’ in the field of maritime transport”.

³⁶⁹ Article 191.4 TFEU.

³⁷⁰ Article 91.1 lit. a TFEU.

Furthermore, it is imperative to acknowledge that also Article 191.1 TFEU, as quoted above, explicitly aims at protecting human health. For these reasons, it seems to be both feasible and justifiable to reduce the possible legal bases to the provisions on environment and transport policy.

Therefore, with the prime objectives of the Hong Kong Convention purporting to be the protection of the environment and human health, and the enhancement of ships' safety only playing an subordinate role,³⁷¹ Article 191.1 TFEU seems to be the most compelling solution. Rather confusingly, however, IMO Conventions in the past have always been transposed into European legislation by reference to Article 100.2 TFEU (ex-Article 80.2 EC), i.e. the provision on the safety of transport at sea.³⁷² This fact is even more surprising if one recalls the mandate of IMO which includes, *inter alia*, "the prevention and control of marine pollution from ships".³⁷³ However, the role and importance of the IMO in encouraging and facilitating "the general adoption of the highest practicable standards in matters concerning maritime safety [...]"³⁷⁴ does seem to have prevailed so far.

Nonetheless, and although clarity and consistency may be better served by choosing one single legal basis for European Union measures,³⁷⁵ the appropriate procedure should be followed. As stipulated by the ECJ, the factors upon which the choice of a legal basis for an EU measure rests must be examined. In this case, i.e. regulatory measures for ship recycling, the protection of the environment as stated in Article 191.1 TFEU has been the most important concern of stakeholders involved.³⁷⁶ Assuming that the Hong Kong Convention will serve, at least in parts, as a role-model for European regulatory measures, these concerns are reflected, in particular, in Regulations 4 and 5 HKC, which aim at reducing the amount of hazardous materials installed or used on ships and seek to establish obligations relating to an inventory of hazardous materials.³⁷⁷ Regulation 9.3 HKC also warrants mention at this stage, as it obliges ship recycling facilities to develop a 'Ship Recycling Plan' including information on "[...] how the type and amount of materials including those identified in the Inventory of Hazardous Materials will be managed". Related to the 'Ship Recycling Plan' is the obligation to ensure "safe and environmentally sound removal of any Hazardous Material contained in a ship"

³⁷¹ Cf. Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention' (2009), at 15–16.

³⁷² *Ibidem*, at 17.

³⁷³ See *supra* chapter "The Hong Kong Convention", B.III.1 (p. 25).

³⁷⁴ *Ibidem*.

³⁷⁵ For a similar perspective, see Lavranos, 'Revisiting the "predominant aim" concept for determining the correct legal basis', 2 Eur. L. Rep. 59 (2010), at 62.

³⁷⁶ In this context, see ECJ, Case C-411/06 (Opinion AG Maduro), *Commission v Parliament and Council* [26 March 2009], para. 18.

³⁷⁷ These obligations serve as one of the most prominent examples of the 'cradle to grave'-approach implemented by the Hong Kong Convention because they apply to ships as soon as they have been built with a view to facilitating and ensuring, *ex ante*, environmentally sound recycling of ships in their final life cycle.

as stipulated by Regulation 20. Finally, reference may also be made in this context, to Regulation 19 on ‘Prevention of adverse effects to human health and the environment’ listing a number of preventative procedures to be established.

Accordingly, the question arises whether the transport-related components of the Hong Kong Convention to which ship recycling measures are ‘indissociably linked’, are “purely incidental”³⁷⁸ and/or “secondary and indirect”³⁷⁹ in relation to the environmental components.

A general reading of the Hong Kong Convention however discloses the importance of transport in this context. The objectives state that the substitution of hazardous materials is only promoted insofar as it does not compromise “[. . .] the ships’ safety, the safety and health of seafarers and the ships’ operational efficiency”.³⁸⁰ The importance of the operating purpose of ships, i.e. their usage as a means of transport, is also apparent in Article 1.1 HKC which states general obligations, particularly emphasising the enhancement of “[. . .] ship safety, protection of human health and the environment throughout a ship’s operating life.” Although one must admittedly agree that the primary subject-matter is not the promotion, facilitation or regulation of maritime transport as such, a number of provisions do have an effect on the operation of sea-going ships.³⁸¹ Furthermore, the ‘cradle to grave’-approach encompassing the whole life cycle of ships inevitably involves a number of measures which have, *eo ipso*, immediate effect on maritime transport. These transport-related components of the Hong Kong Convention cannot be undermined as being ‘purely incidental’ in nature. In particular the ‘cradle to grave’-approach implemented by the Hong Kong Convention reveals the fact that the regulation of transport-related issues is more than incidental when it comes to ship recycling. Additionally, the use of Article 100.2 TFEU to transpose IMO Conventions into European Union legislation strengthens this conclusion, although, according to established EJC case-law, the “legal basis for an act must be determined having regard to its own aim and content and not to the legal basis used for the adoption of other Community measures which might, in certain cases, display similar characteristics”.³⁸²

As the ECJ has held, recourse to a dual legal basis is only ruled out “where the procedures laid down for each legal basis are incompatible with each other”³⁸³ or

³⁷⁸ See ECJ, Case C-94/03, *Commission v Council* [10 January 2006], para. 42.

³⁷⁹ ECJ, Case C-211/01, *Commission v Council* [11 September 2003], para. 40.

³⁸⁰ Eighth recital to the Hong Kong Convention.

³⁸¹ In a similar context, see ECJ, Case C-94/03 (Opinion AG Kokott), *Commission v Council* [26 May 2005], paras. 35–36.

³⁸² In this context, see ECJ, Case C-187/93, *Parliament v Council* [28 June 1994], para. 28.

³⁸³ ECJ, Joined Cases C-164/97 and 165/97, *Parliament v Council* [25 February 1999], para. 14.

“where the use of two legal bases is liable to undermine the rights of the Parliament”.³⁸⁴ Hence, recourse to a dual legal basis is reasonable, and also possible in the present context: Both the environmental- and transport-related provisions contain references to the ‘ordinary legislative procedure’ as stipulated in Article 294 TFEU (ex-Article 251 EC).³⁸⁵ Accordingly, both procedures are compatible with each other. Furthermore, the rights of the ‘Parliament’ are not at risk, as the European Parliament is equally involved.³⁸⁶

Moreover, the principle of subsidiarity is also complied with. Regulatory measures by the European Union might only induce IMO and third states to act if and when precise requirements are implemented at the same time and in the same manner throughout the European Union. This cannot be sufficiently achieved by member states of the European Union on their own.³⁸⁷ Conversely, the European Union objective of creating a global ‘focal point’ relating to the regulation of ship recycling can therefore only be achieved by action at the European level.

Given these considerations, it is necessary to base relevant regulatory measures on Article 191.1 TFEU in conjunction with Article 100.2 TFEU.³⁸⁸ Therefore, the underlying objectives of European regulatory initiatives in the field of ship recycling should be pursued within the framework of the ‘common transport policy’, as applicable and as referred to in Article 90 TFEU (ex-Article 70 EC), in conjunction with the Union policy on the environment as stated in Article 191 TFEU (ex-Article 174 EC).

³⁸⁴ ECJ, Case C-94/03, *Commission v Council* [10 January 2006], para. 52; ECJ, Case C-178/03, *Commission v Parliament and Council* [10 January 2006], para. 59; ECJ, Case C-178/03 (Opinion GA Kokott), *Commission v Parliament and Council* [26 May 2006], para. 60; for a rather sceptical view in this respect, see Epiney, ‘Gemeinschaftsrechtlicher Umweltschutz und Verwirklichung des Binnenmarktes – Harmonisierung auch der Rechtsgrundlagen?’, 47 JZ 564 (1992), at 568–569.

³⁸⁵ See Articles 192.1 and 100.2 TFEU.

³⁸⁶ The fear of undermining the rights of the European Parliament allegedly relates back to the “supposedly existing democratic deficit” within the European Union; see Lavranos, ‘Revisiting the “predominant aim” concept for determining the correct legal basis’, 2 Eur. L. Rep. 59 (2010), at 62; however, with the Treaty on the Functioning of the European Union strengthening the powers of the European Parliament, this fear has lost much of its relevance; for a rather sceptical view in this context, see ECJ, Case C-411/06 (Opinion AG Maduro), *Commission v Parliament and Council* [26 March 2009], para. 6.

³⁸⁷ European Commission, ‘Impact Assessment for an EU strategy on better ship dismantling’, EU-doc. SEC(2008) 2846, at 18–19: “Because of the international dimension of the ship dismantling problem, it cannot be solved at national level. The 27 EU Member States are all individually members of IMO. However, the EU has greater political and economic weight to ensure better ship dismantling if it acts coherently. As in the context of other international conventions, the EU is widely seen as a leader on environmental issues and its example encourages third countries to follow. [...] Conversely, if the EU does not act coherently, this is seen by those who are not interested in changing current practices as a confirmation of their position, and consequently also international efforts may be slowed down”.

³⁸⁸ Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 17.

3. Fundamental Principles

According to Article 191.2 TFEU, environmental measures of the European Union shall be based on, *inter alia*, the Precautionary Principle and the Polluter Pays Principle. Consequently, these concepts are part of EU law which is why they will be briefly introduced in the following sections.

a) Precautionary Principle

There still is no common understanding regarding the content and scope of the Precautionary Principle³⁸⁹; it is however unanimously accepted as providing a response to “fundamental environmental uncertainties about many international environmental issues”.³⁹⁰ Referred to in a growing number of international agreements,³⁹¹ declarations,³⁹² and codes³⁹³ as well as opinions in judgments by international courts,³⁹⁴ the Precautionary Principle certainly is one of the more established ‘approaches’ of current international environmental law.³⁹⁵ Whilst its

³⁸⁹ See Hickey/Walker, ‘Refining the Precautionary Principle in International Environmental Law’, 14 Va. Env’tl. L.J. 423 (1995), at 431–438; Freestone, ‘The Road from Rio: International Environmental Law after the Earth Summit’, 6 J. Env’tl. L. 193 (1994), at 210/211; Cheyne, ‘Taming the Precautionary Principle in EC Law’, 6 J.E.E.P.L. 468 (2007), at 468; Brownlie, *Principles of Public International Law*⁷ (2008), at 277.

³⁹⁰ Bodansky, ‘Panelist Remarks on New Developments in International Environmental Law’, 85 Am. Soc’y Int’l L. Proc. 413 (1991), at 413; see also Birnie/Boyle/Redgwell, *International Law and the Environment*³ (2009), at 136–137 and 152–164.

³⁹¹ See, e.g., the Preamble to the Montreal Protocol; Art. 2.2(a) of the OSPAR Convention; Art. 3.2 of the Helsinki Convention; Art. 5 (c), 6 and Annex II of the Fish Stocks Agreement, UN-doc. A/Conf.164/37; Art. 3.1 of the 1996 Protocol to the London Convention.

³⁹² See para. 7 of the 1990 Bergen Declaration on Sustainable Development, UN-doc. A/Conf.151/PC/10; see also para. 5 of the Washington Declaration on Protection of the Marine Environment from Land-based Activities; para. 10 of the 1996 Istanbul Declaration.

³⁹³ See *inter alia* IMO, Guidelines for Preventing the Introduction of Unwanted Organisms and Pathogens from Ships’ Ballast Water and Sediment Discharges; FAO, *Precautionary Approach to Capture Fisheries and Species Introductions* (1995).

³⁹⁴ See, e.g., ICJ, 1974 *Nuclear Tests Case*, Dissenting Opinion Weeramantry, at 342–344; cf. ITLOS, *MOX Plant Case* [3 December 2001], 41 I.L.M. 405 paras. 75, 81–84.

³⁹⁵ Nonetheless, it is still unclear whether the Precautionary Principle already ranges among norms of customary international law, see Bodansky, ‘Panelist Remarks on New Developments in International Environmental Law’, 85 Am. Soc’y Int’l L. Proc. 413 (1991), at 413; for a differing view, see Cameron/Abouchar, ‘The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment’, 14 B. C. Int’l & Comp. L. Rev. 1 (1991), at 20–21; Brunnée, ‘The Stockholm Declaration and the Structure and Processes of International Environmental Law’, in Nordquist/Moore/Mahmoudi (eds.), *The Stockholm Declaration and Law of the Marine Environment* (2003), 67, at 75; Wiener, ‘Precaution’, in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 597, at 599–601; for a perspective considering it “neither necessary nor useful to attempt to turn the precautionary principle into a ‘rule’ of customary international law”, see Boyle, ‘Further Development of the Law of the Sea: Mechanisms for Change’, 54 I.C.L.Q. 563 (2005), at 574.

current boundaries are difficult to discern, the common concept still is best reflected by Principle 15 of the 1992 Rio Declaration³⁹⁶:

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

The main idea of the Precautionary Principle is therefore that precaution should prevail over uncertainty in cases of serious global environmental concern arising from potential irreversible environmental damage.³⁹⁷ As a result, precaution should comprise precautionary measures as well as impact assessments and general quality management.³⁹⁸ These obligations arise according to the likelihood and the gravity of environmental damage as can be assessed *ex ante*.³⁹⁹

³⁹⁶ Rio Declaration on Environment and Development (14 June 1992), Annex 1 to UN-doc. A/CONF.151/26(Vol.I); see also Brunnée, 'The Stockholm Declaration and the Structure and Processes of International Environmental Law', in Nordquist/Moore/Mahmoudi (eds.), *The Stockholm Declaration and Law of the Marine Environment* (2003), 67, at 72.

³⁹⁷ Birnie/Boyle/Redgwell, *International Law and the Environment*³ (2009), at 137; id, at 153: one may refer to "an obligation of diligent prevention and control of foreseeable risks"; Freestone, 'The Road from Rio: International Environmental Law after the Earth Summit', 6 J. Envtl. L. 193 (1994), at 211: the Precautionary Principle "[...] requires that once environmental damage is threatened action should be taken to control or abate possible environmental interference even though there may still be scientific uncertainty as to the effects of the activities. It thus represents an important tool for decision making in a situation of scientific uncertainty".

³⁹⁸ Report of the UN Conference on Environment and Development (13 August 1992), UN-doc. A/CONF.151/26 (Vol. II), Chapter 17.21: "A precautionary and anticipatory rather than a reactive approach is necessary to pre-vent the degradation of the marine environment. This requires, inter alia, the adoption of precautionary measures, environmental impact assessments, clean production techniques, recycling, waste audits and minimization, construction and/or improvement of sewage treatment facilities, quality management criteria for the proper handling of hazardous substances, and a comprehensive approach to damaging impacts from air, land and water. Any management framework must include the improvement of coastal human settlements and the integrated management and development of coastal areas."; see also *ibid*, Chapter 17.22: "States, in accordance with the provisions of the United Nations Convention on the Law of the Sea on protection and preservation of the marine environment, commit themselves, in accordance with their policies, priorities and resources, to prevent, reduce and control degradation of the marine environment so as to maintain and improve its life-support and productive capacities. To this end, it is necessary to: (a) Apply preventive, precautionary and anticipatory approaches so as to avoid degradation of the marine environment, as well as to reduce the risk of long-term or irreversible adverse effects upon it; (b) Ensure prior assessment of activities that may have significant adverse impacts upon the marine environment; (c) Integrate protection of the marine environment into relevant general environmental, social and economic development policies; (d) Develop economic incentives, where appropriate, to apply clean technologies and other means consistent with the internalization of environmental costs, such as the polluter pays principle, so as to avoid degradation of the marine environment; (e) Improve the living standards of coastal populations, particularly in developing countries, so as to contribute to reducing the degradation of the coastal and marine environment".

³⁹⁹ See, e.g., the Trail Smelter Arbitration Decision, 35 A.J.I.L. 684 (1941), at 716: "[...] when the case is of serious consequence and the injury is established by clear and convincing evidence"; Birnie/Boyle/Redgwell, *International Law and the Environment*³ (2009), at 153.

Given that it is explicitly referred to in Article 191.2 TFEU (ex-Article 174.2 EC), included in the title of several European Union regulations and directives,⁴⁰⁰ used in the European Court of Justice as a means of interpretation,⁴⁰¹ and with the European Commission having published its understanding on how the principle should work in practice,⁴⁰² the Precautionary Principle may well be labelled a “cornerstone of the EC’s [now EU’s] environmental policy”.⁴⁰³

From a legal perspective, the principle does not incorporate any enforceable obligations. It does, however, function as a guideline for the future development of the Union policy on the environment⁴⁰⁴ as well as with regard to practical situations which give discretion to European Union institutions. Furthermore, the Commission considers the European Union to be “[...] entitled to prescribe the level of protection, notably as regards the environment and human, animal and plant health, which it considers appropriate”,⁴⁰⁵ thus obligating its member states accordingly.

While at first sight lacking direct relevance to the regulation of ship recycling, the relation between the principle and the activity to be regulated dates back to the early days of ship recycling-related efforts at IMO. Ever since Norway submitted its first draft for a legally-binding international instrument on ship recycling in 2005, an explicit reference to the ‘precautionary approach’ has been included in the preamble to the instrument.⁴⁰⁶ Moreover, the ‘cradle to grave’-approach envisaged by the Hong Kong Convention also partially responds to the Precautionary

⁴⁰⁰ For further information in this respect, see, e.g., Cheyne, ‘Taming the Precautionary Principle in EC Law’, 6 J.E.E.P.L. 468 (2007), note 3.

⁴⁰¹ The ECJ has decided a vast number of cases referring to the Precautionary Principle, the latest of which include, *inter alia*: ECJ, Case C-446/08, *Solgar and Others* [29 April 2010], paras. 67–73; ECJ, Case C-333/08, *Commission v France* [28 January 2010], paras. 91–103; ECJ, Case C-552/07, *Azelvandre* [17 February 2009], para. 29; ECJ, Case C-219/07, *Nationale Raad van Dierenkwekers en Liefhebbers and Andibel* [19 June 2008], para. 38; ECJ, Joined Cases C-14/06 and C-295/06, *Parliament v Commission* [1 April 2008], para. 75; ECJ, Case C-194/05, *Commission v Italy* [18 December 2007], para. 33; ECJ, Case C-418/04, *Commission v Ireland* [13 December 2007], paras. 226, 254; ECJ, Joined Cases C-439/05P and C-454/05P, *Land Oberösterreich v Commission* [13 September 2007], paras. 47–52; ECJ, Case C-98/03, *Commission v Germany* [10 January 2006], para. 40; ECJ, Case C-6/04, *Commission v United Kingdom* [20 October 2005], para. 54; ECJ, Case C-132/03, *Codacons and Federconsumatori* [26 May 2005], paras. 56–63; ECJ, Case C-127/02, *Waddenvereniging and Vogelbeschermingsvereniging* [7 September 2004], paras. 44, 58.

⁴⁰² See European Commission, ‘Communication from the Commission on the precautionary principle’, EU-doc. COM(2000) 1.

⁴⁰³ Cheyne, ‘Taming the Precautionary Principle in EC Law’, 6 J.E.E.P.L. 468 (2007), at 468; see also European Commission, ‘Communication from the Commission on the precautionary principle’, EU-doc. COM(2000) 1, at 11–12: “[...] reliance on the precautionary principle constitutes an essential plank of its [the EU’s] policy”.

⁴⁰⁴ See Article 191.1 TFEU; see also Cheyne, ‘Taming the Precautionary Principle in EC Law’, 6 J.E.E.P.L. 468 (2007), at 469.

⁴⁰⁵ European Commission, ‘Communication from the Commission on the precautionary principle’, EU-doc. COM(2000) 1, at 11.

⁴⁰⁶ Submission by Norway to MEPC 54, ‘Proposal for a new legally-binding instrument on recycling of ships’ (5 December 2005), Annex 1 to IMO-doc. MEPC 54/3.

Principle. To name a few of these aspects: Potentially hazardous materials shall be identified *ex ante* as “potential sources of concern”,⁴⁰⁷ they shall be listed in inventories which shall accompany each ship in a “properly maintained and updated” fashion throughout its operating life in order to facilitate later recycling operations and minimise related risks to the environment and/or human health,⁴⁰⁸ and, with regard to supplementary data regarding hazardous materials, upon request an evaluation shall be conducted “of the association between the Hazardous Material in question and the likelihood [...] that it will lead to significant adverse effects on human health or the environment”.⁴⁰⁹ All these aspects can only be fully understood in the context of the Precautionary Principle, as various legal obligations are established requiring action at a point of time when there is no imminent environmental threat. In addition, capacity-building via transfer of knowledge might also “raise the standards of protection and precaution in the countries concerned”.⁴¹⁰

As a matter of course, the European Union will take these considerations into account when enacting related legislation.

b) Polluter Pays Principle

Although it has not received as much public and academic attention as the Precautionary Principle,⁴¹¹ the Polluter Pays Principle is also one of the fundamental principles of international environmental law. Following on the heels of the Precautionary Principle in the 1992 Rio Declaration, Principle 16 states⁴¹²:

National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

⁴⁰⁷ IMO Assembly resolution, ‘IMO Guidelines on Ship Recycling’ (5 December 2003), Annex to IMO-doc. A 23/Res.962, para. 4.1.

⁴⁰⁸ Regulation 5 HKC.

⁴⁰⁹ Regulation 6.4.1.1 HKC.

⁴¹⁰ European Commission, ‘Green Paper on better ship dismantling’, EU-doc. COM(2007) 269, para. 3.4.

⁴¹¹ Sands, *Principles of International Environmental Law*² (2003), at 280.

⁴¹² Rio Declaration on Environment and Development (14 June 1992), UN-doc. A/CONF.151/26 (Vol.I).

Its main thrust therefore is that “the costs of pollution should be borne by the person [or entity] responsible for causing the pollution”.⁴¹³ As its implications for the international level are closely related to state liability, some states view its normative scope as limited to domestic affairs.⁴¹⁴ On the other hand, international law has more and more encouraged states to cooperate in terms of liability and compensation for damages resulting from pollution and other environmental harm within and beyond national jurisdiction.⁴¹⁵

The principle’s legal status seems as vague as that of the Precautionary Principle⁴¹⁶; however, there is the general assumption that—while they are effectively

⁴¹³ Sands, *Principles of International Environmental Law*² (2003), at 279; Boyle, ‘Making the Polluter Pay? Alternatives to State Responsibility in the Allocation of Transboundary Environmental Costs’ in Francioni/Scovazzi (eds.), *International Responsibility for Environmental Harm* (1991), at 363–379; Nettesheim, in Grabitz/Hilf/Nettesheim, *Recht der Europäischen Union*⁴⁴, Art. 191 AEUV paras. 107–108; see also an early definition by the European Commission as stated in the Annex to the ‘Council Recommendation regarding cost allocation and action by public authorities on environmental matters’, EU-doc. 75/436/EEC, para. 3: “A polluter is someone who directly or indirectly damages the environment or who creates conditions leading to such damage”.

⁴¹⁴ Boyle, ‘Making the Polluter Pay? Alternatives to State Responsibility in the Allocation of Transboundary Environmental Costs’ in Francioni/Scovazzi (eds.), *International Responsibility for Environmental Harm* (1991), 363, at 365; see also the work of the ILC on ‘International liability in case of loss from transboundary harm arising out of hazardous activities’, report of the ILC on the work of its 56th session (19 September 2004), UN-doc. A/59/10, paras. 158–176; UN GA Resolution on the report of the ILC on the work of its 56th session (16 December 2004), UN-doc. A/RES/59/41; report of the ILC on the work of its 58th session (21 September 2006), UN-doc. A/61/10, paras. 51–67, UN GA Resolution on the report of the ILC on the work of its 58th session (18 December 2006), UN-doc. A/RES/61/34.

⁴¹⁵ See the Trail Smelter Arbitration Decision, 35 A.J.I.L. 684 (1941), at 713; see also Principle 2 of the 1992 Rio Declaration (14 June 1992), Annex 1 to UN-doc. A/Conf.151/26(Vol.I); note the 1972 Stockholm Declaration:

Principle 21: States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Principle 22: States shall cooperate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction. [...]

Principle 24: International matters concerning the protection and improvement of the environment should be handled in a cooperative spirit by all countries, big and small, on an equal footing. Cooperation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States.

⁴¹⁶ Brownlie, *Principles of Public International Law*⁷ (2008), at 279–280.

norms of customary international law⁴¹⁷—these principles establish certain standards of “good environmental governance”.⁴¹⁸

Of far greater importance in practice, at least from a European point of view, the principle of ‘Polluter Pays’ has found its way into numerous judgments of the European Court of Justice in recent years.⁴¹⁹ Additionally, the European Commission explicitly is of the opinion that environmentally sound ship recycling is first and foremost the producer’s responsibility and should therefore follow the Polluter Pays Principle.⁴²⁰

c) Summary

These considerations have revealed three major findings: Firstly, the regulatory scope of application encompasses not only relevant ship-owning companies with headquarters within the boundaries of EU member states, but also ships flying the flags of EU member states irrespective of their current location. Additionally, regulatory action would also apply to all non-governmental ships voluntarily calling at ports of EU member states regardless of their flag or registry. Secondly, the EU is legally competent to initiate measures in the field of ship recycling

⁴¹⁷ According to Birnie/Boyle/Redgwell, *International Law and the Environment*³ (2009), at 137, there is quite substantial support in favour of the assumption that the Polluter Pays Principle is regarded as customary international law as far as firstly the states’ duty to prevent, reduce and control pollution and environmental harm emanating from within their respective territory, and secondly their duty to cooperate with regard to environmental risks and emergencies is concerned; regarding the first part, the “[...] existence of the general obligation of states to ensure that activities within their jurisdiction and control respect the environment of other states” has been explicitly recognised by the ICJ in its Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons (1996), ICJ Reports 1996, 226, at 241–242, para. 29; see Sands, *Principles of International Environmental Law*² (2003), at 22.

⁴¹⁸ For further references, see Craik, ‘Deliberation and Legitimacy in Transnational Environmental Governance’, IILJ Working Paper 2006/10, at 17.

⁴¹⁹ See, e.g., ECJ, Judgment (Grand Chamber), Joined Cases C-379/08 and C-380/08, *ERG and others* [9 March 2010], paras. 75–85; ECJ, Case C-172/08, *Pontina Ambiente* [25 February 2010], paras. 36–38; ECJ, Case C-169/08, *Presidente del Consiglio dei Ministri* [17 November 2009], para. 41; ECJ, Case C-254/08, *Futura Immobiliare and Others* [16 July 2009], paras. 44, 52; ECJ, Case C-487/06P, *British Aggregates v Commission* [22 December 2008], paras. 128–131, 135, 138, 147; ECJ, Case C-127/07, *Arcelor Atlantique and Lorraine and Others* [16 December 2008], para. 30; ECJ, Judgment (Grand Chamber), C-188/07, *Commune de Mesquer* [24 June 2008], paras. 12, 69–89; ECJ, Case C-1/03, *Van de Walle and Others* [7 September 2004], paras. 48, 57–58; ECJ, Case C-445/00, *Austria v Council* [11 September 2003], para. 78; ECJ, Case C-444/00, *Mayer Parry Recycling* [19 June 2003], para. 79; ECJ, Case C-53/00, *Ferring* [22 November 2001], para. 26; ECJ, Case C-293/97, *Standley and Others* [29 April 1999], paras. 41, 43–44, 51–52.

⁴²⁰ Communication with Jean-Louis Colson, Head of the Maritime Transport Policy Unit of DG MOVE of the European Commission, 16 July 2010; this approach is however explicitly criticised by Wiener, ‘Global Environmental Regulation: Instrument Choice in Legal Context’, 108 *Yale L. J.* 677 (1999), at 750–755, who promotes a ‘Beneficiaries Pay Principle’ instead.

because the relevant competencies have been conferred to it, resulting in a double legal basis for measures. Thirdly, the Precautionary Principle and the Polluter Pays Principle have to be given due regard in developing specific measures as the former is generally considered a ‘cornerstone’ of EU environmental policy and both are of particular relevance with a view to ship recycling.

II. Better Enforcement of Existing EU Legislation

Before future regulatory measures will be discussed, it is worth noting that there is already a wide variety of relevant legislative mechanisms in force within the European Union. Better enforcement of existing EU ship recycling regulation is usually only sought for the specific purpose of strengthening the efficacy of the Basel Convention⁴²¹ in general and the European Waste Shipment Regulation (WSR) in particular. However, European Union legislation also provides for a number of relevant regulations and directives other than those of the WSR. Firstly however, emphasis will be placed on the European WSR as the related debate is currently causing turmoil among policy-makers, industry stakeholders and environmentalists.

1. Waste Shipment Regulation

a) Transposition and Implementation

By virtue of Council Decision 93/98/EEC,⁴²² the European Union (then European Economic Community⁴²³) has been a party to the Basel Convention ever since 7 February 1994. Criticism of the range of the Basel Convention⁴²⁴ led to a decision at the third meeting of the Conference of the Parties to the Basel Convention

⁴²¹ See supra chapter “European Ship Recycling Regulation”, A.II (pp. 123 et seq.).

⁴²² Council Decision of 1 February 1993 on the conclusion, on behalf of the Community, of the Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel Convention).

⁴²³ Pursuant to the Maastricht Treaty (adopted 7 February 1992, entered into force 1 November 1993), the European Economic Community was absorbed into the three-pillar system of the European Union; in 2009, the three pillars merged as stipulated by the Treaty of Lisbon (adopted 13 December 2007, entered into force 1 December 2009).

⁴²⁴ See Schneider, ‘The Basel Convention Ban on Hazardous Waste Exports: Paradigm of Efficacy or Exercise in Futility?’, 20 *Suffolk Transnat’l L. Rev.* 247 (1996), at 276–278; Cusack, ‘International Law and the Transboundary Shipment of Hazardous Waste to the Third World: Will the Basel Convention Make a Difference?’, 5 *Am. U. J. Int’l L. & Pol’y* 393 (1990), at 420–422.

(COP3) adopting the ‘Basel Ban Amendment’⁴²⁵ which has not yet entered in force⁴²⁶ due to lack of ratifications as well as lack of consensus about the level of ratification necessary.⁴²⁷ The European Union, however, fully transposed and implemented both the Basel Convention and the Basel Ban Amendment by adopting its ‘Waste Shipment Regulation’ (WSR).⁴²⁸

Pursuant to the WSR, the European Union has established a system governing the supervision and control of waste shipments in the territories of its member states, states belonging to the European Free Trade Association (EFTA),⁴²⁹ OECD member states and other states which are party to the Basel Convention. *Inter alia*, this regime prohibits the export of hazardous wastes from member states of the European Union, OECD states and Liechtenstein to non-OECD states. Where the Basel Convention, and therefore the transposed WSR, applies to ships flying the flags of EU member states, both the provisions of the Basel Convention and the WSR provide direct regulatory impediments to the practice of sending these ships to South Asian states for recycling.⁴³⁰ Accordingly, the legal *status quo* with regard to the recycling of ships being linked to the European Union is beyond any doubt: Exports of hazardous wastes from member states of the European Union and the OECD to non-OECD states are prohibited, and ships explicitly are not exempted from these provisions.⁴³¹ This stance takes into account indent 35 of Regulation

⁴²⁵ Decision III/1: ‘Amendment to the Basel Convention’ (28 November 1995), UN-doc. UNEP/CHW.3/35; for a sceptical assessment, see also Sundram, ‘Basel Convention on Transboundary Movement of Hazardous Wastes: Total Ban Amendment’, 9 Pace Int’l L. Rev. 1 (1997), at 4, 19–24.

⁴²⁶ According to Article 17.5 BC, amendments “enter into force between Parties having accepted them on the ninetieth day after the receipt by the Depositary of their instrument of ratification, approval, formal confirmation or acceptance by at least three-fourths of the Parties who accepted them”.

⁴²⁷ It is unclear whether the required ratio of ‘three-fourths’ refers to the time of the amendment or to the status quo; see Decision IX/25: ‘Addressing the interpretation of paragraph 5 of article 17 of the Basel Convention’ (27 June 2008) and its respective Annex, UN-doc. UNEP/CHW.9/39, at 50–51; see also Decision IX/26: ‘President’s statement on the possible way forward on the Ban Amendment’ (27 June 2008) and its respective Annex, UN-doc. UNEP/CHW.9/39, at 51–52.

⁴²⁸ Council Regulation (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community; replaced by Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste.

⁴²⁹ See the Convention Establishing the European Free Trade Association on 4 January 1960.

⁴³⁰ Before the European WSR was adopted in its present form, EU policy and legislation institutionally facilitated and favoured wastes destined for recycling and recovery operations, irrespective of whether they were considered hazardous, as recycling and trade in recyclable materials was generally encouraged by the European Union; see Kummer, *International Management of Hazardous Wastes* (1995), at 137.

⁴³¹ See European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 4; the Waste Shipment Regulation applies to all ships which have become waste, i.e. whose owner discards or intends or is required to discard the ship; see European Commission, ‘An assessment of the link between the IMO Hong Kong Convention for the safe and environmentally sound recycling of ships, the Basel Convention and the EU waste shipment regulation’, EU-doc. COM(2010) 88, para. 2.3.2. In case the intention of the shipowner to dispose of the ship does not

(EC) No 1013/2006 ('Waste Shipment Regulation') which notes, *inter alia*, "that a ship may become waste as defined in Article 2 BC and that at the same time it may be defined as a ship under other international rules".⁴³² Therefore, ship recycling capacity currently available to ships flying the flags of EU member states is considerably restricted, effectively to the existing Turkish and British ship recycling facilities.⁴³³ As a result, and despite the legal *status quo*, the European Waste Shipment Regulation is hardly ever applied in this context, thus bending the rules.

b) Application in Practice

Given the fact that the European WSR has been in force, and hence legally binding for EU member states for almost two decades, it is surprising that court orders or decisions preventing shipowners from sending their ships to South Asian ship recycling facilities are extremely rare.⁴³⁴

The best-known case relates to the case of the French aircraft carrier *Clemenceau* ("Le Clem") which was sent to India in 2005 for disposal operations.⁴³⁵ It was, however, denied access to Indian internal waters by the Supreme Court of India⁴³⁶ and temporarily denied access to the Suez Canal by Egyptian authorities,⁴³⁷ before it was ordered to return to France by (then) president Jacques Chirac, following a ruling of the French *Conseil d'Etat*.⁴³⁸ Two years later, the carrier was sent to a recycling

materialise, the European Court of Justice in similar cases regularly draws the respective distinction between disposal and other legitimate entrepreneurial decisions on a case-by-case basis; in doing so, it consults the *essentialia negotii* such as the sales' contract, the price, the person of the buyer as well as general circumstances in order to attain further indications for or against an intention to dispose of the ship; see ECJ, Case C-188/07, *Commune de Mesquer v Total France SA and Total International Ltd.* [24 June 2008], paras. 40–45; ECJ, Case C-9/00, *Palin Granit and Vehmassalon kansanterveysystöön kuntayhtymän hallitus* [18 April 2002], para. 29; ECJ, Joined Cases C-418/97 and 419/97, *ARCO Chemie Nederland* [15 June 2000], paras. 36, 40, 64–66; ECJ, Case C-129/96, *Inter-Environnement Wallonie ASBL v Région Wallonne* [18 December 1997], paras. 26 and 31; ECJ, Case C-359/88, *Zanetti and Others* [28 March 1990], paras. 12–13; ECJ, Case C-422/92, *Commission v Germany* [11 August 1995], paras. 22–23; ECJ, Joined Cases C-304/94, C-330/94, C-342/94 and C-224/95, *Tombesi and Others* [25 June 1997] ECR I-3561, paras. 47–48; cf. Ormond, 'Enforcing EU environmental law outside Europe?', ELNI Review 13 (1/2009), at 17 and note 32.

⁴³² In this context, see Decision VII/26: 'Environmentally sound management of ship dismantling' (29 October 2004), UN-doc. UNEP/CHW.7/33, at 63.

⁴³³ This capacity could by no means satisfy the demand of European shipowners if they did not sell or re-flag their end-of-life ships; see European Commission DG TREN, *Oil Tanker Phase Out and the Ship Scrapping Industry* (2004), at 110–132; see also Puthucherril, *From Shipbreaking to Sustainable Ship Recycling* (2010), at 40–43.

⁴³⁴ Ormond, 'Enforcing EU environmental law outside Europe?', ELNI Review 13 (1/2009), at 18.

⁴³⁵ BBC News, 'Asbestos ship on its way to India', 3 January 2006; Knauer, 'Odyssee mit Asbest', *Der Spiegel* (23 January 2006), at 45.

⁴³⁶ BBC News, 'Stay out, India tells toxic ship', 6 January 2006.

⁴³⁷ BBC News, 'Egypt asks toxic ship for proof', 12 January 2006.

⁴³⁸ BBC News, 'Chirac orders "toxic" ship home', 16 February 2006.

facility in Hartlepool, England,⁴³⁹ where asbestos removal operations eventually started in April 2009.⁴⁴⁰

The decisions of the Dutch *Raad van Staten* in the *Sandrien* and *Otapan* cases are also well-known. The *Otapan* case dealt with a claim lodged by *Stichting Greenpeace Nederland*, a Dutch non-governmental organisation, against a decision by the Dutch *State Secretary for Housing, Spatial Planning and the Environment* authorising the transfer of a decommissioned tanker (“*MV Otapan*”) to Turkey for ship recycling operations.⁴⁴¹ The *Sandrien* case, however, is more relevant to the current context for the following reasons: In this case, executive coercion by the *State Secretary for Housing, Spatial Planning and the Environment* prevented the ship “*Sandrien*” from sailing from the Netherlands to India. This decision was based on the fact that preliminary steps to transfer the ship had been initiated without following the procedures stipulated by the European WSR. Central to the decision of the Dutch *Raad van Staten* was the question whether the ship was correctly assumed to be waste pursuant to the definitions given by the WSR at the time. Ultimately, the court upheld the authority’s executive decision on the grounds that the departure of the *Sandrien* would have constituted a first step towards illegal traffic which the authority was both entitled and obliged to prevent pursuant to law enforcement regulation in the field of environmental protection.⁴⁴²

These cases cannot hide the fact that relevant case law is extremely rare. Being aware that their ships may be detained in the ports of EU member states, European shipowners try to avoid or (at least) to reduce this risk as far as possible.⁴⁴³ In so doing, they have three major options: Firstly, they may sell their ships on the second hand market well before they reach recycling age. Secondly, they may arrange for their ships to leave European waters on a cargo trip before the decision to sell them for recycling purposes is announced.⁴⁴⁴ Thirdly, they may simply re-flag their ships to open registries. With regard to the first option, it may be assumed, *a minore ad maius*, that this is a widespread practice, given that (allegedly) 14 % of the world

⁴³⁹ The Times & The Sunday Times, ‘Hartlepool to break up France’s toxic flagship Clemenceau’, 2 July 2008; Spurrier, ‘Bon voyage – Clemenceau leaves France for UK’, Lloyd’s List, 3 February 2009, at 1.

⁴⁴⁰ See the press update on ‘Le Clemenceau’ by ship recycling company Able UK, <<http://www.ableuk.com/ableshiprecycling/q790.shtml>> accessed 31 January 2012; see also BBC News, ‘Praise for “toxic” ship scrapping’, 4 January 2010; eventually, however, the Clemenceau case is a completely different story due to the fact that it was a state-owned, military vessel.

⁴⁴¹ Raad van Staten, case no. 200606331/1, Judgment of 21 February 2007.

⁴⁴² Raad van Staten, case no. 200105168/2, Judgment of 19 June 2002.

⁴⁴³ See European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 2.2; see also European Commission, Green Paper: On better ship dismantling (22 May 2007), EU-doc. COM(2007) 269, para. 2.1.

⁴⁴⁴ Ormond, ‘Enforcing EU environmental law outside Europe?’, ELNI Review 13 (1/2009), at 18; European Commission, ‘An assessment of the link between the IMO Hong Kong Convention for the safe and environmentally sound recycling of ships, the Basel Convention and the EU waste shipment regulation’ (12 March 2010), EU-doc. COM(2010) 88, para. 2.3.5.

merchant fleet was older than 25 years whilst only 9 % of the German merchant fleet was older than 16 years in 2009.⁴⁴⁵ Therefore, approximately 90 % of the German merchant fleet is currently sold and re-flagged to other states at some point in time. The prevalence of the second option is endorsed by information provided by other stakeholders such as non-governmental organisations,⁴⁴⁶ but it also became public for example in the Danish *Kong Frederik IX* case.⁴⁴⁷ The general tendency to re-flag ships prior to commencing recycling operations is further illustrated by the discrepancy between the 25 largest flag states and the 25 largest flag states when it comes to ship recycling.⁴⁴⁸

Ultimately, the present situation cannot be considered a solution to the issue at hand. European shipowners obviously make use of loopholes in order not to face the costs and/or administrative burdens resulting from the application of the WSR.⁴⁴⁹ Even more obviously, individual entrepreneurial decisions such as the sale of ships on the second-hand market are often economically more reasonable than maintaining them until they have reached the end of their life cycle.

As a result, the factual status quo is unsatisfactory: Rather than providing a regulatory reason to foster competition between 'green' ship recycling facilities in OECD countries, the adoption and implementation of provisions attempting to regulate waste shipments within and outside of the European Union provided an economic

⁴⁴⁵ Gramann, 'Changing obligations for the shipping industry – conforming to the environmental and safety standards', Ship Scrapping & Recycling (Lloyd's Maritime Academy seminar, 2009), at 3; see also Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention' (2009), at 23 and 31; see also infra chapter "European Ship Recycling Regulation", B. IV.4.a)bb) (pp. 213 et seq.).

⁴⁴⁶ Puthucherril, *From Shipbreaking to Sustainable Ship Recycling* (2010), at 113; Chowdhury, 'Recycling is a Shore Based Industry', *Recycling of Ships & Other Marine Structures* (2005), at 15.

⁴⁴⁷ COWI/DHI, *Ship Dismantling and Pre-Cleaning of Ships* (June 2007), at 29: "In February 2005 the Danish Ministry of Environment became aware that a 51 year old Danish ferry named *Kong Frederik IX* [...] was to be sold possibly for recycling in India. It also became known that the ship contained asbestos. When the ship was sold it was docked in Denmark, but registered in St. Vincent and the Grenadines. The former owner of the ship, as well as the new owners, claimed that the ship was sold allegedly to be put in service in the Middle East as a cargo ship. The Danish authorities requested the involved parties to produce documentation on this. As declarations and documentation for this activity were produced, the national competent authority classified the ship as a non-waste and the ship left the Danish port on 16 March 2005. However, after having left the Danish port and Danish waters the ship sailed directly for recycling in India".

⁴⁴⁸ The list of the 25 largest flag states comprises nine European Union member states, while the list of the 25 largest flag states in terms of ship recycling only names four; see COWI, 'Study supporting the impact assessment of a new legislative proposal' (2009), at 30–31; according to this comparison, flag states such as Tuvalu, St. Kitts-Nevis, St. Vincent & Grenadines, Mongolia, Comoros, Cambodia and Dominica are particularly attractive for ships prior to recycling; for a newer account, see infra chapter "European Ship Recycling Regulation", note 722 and accompanying text (p. 214).

⁴⁴⁹ See the concern raised *inter alia* by Kummer, *International Management of Hazardous Wastes* (1995), at 81, that the adoption of a complete ban on transboundary movements of hazardous wastes would eventually force the respective hazardous waste trade into illegality.

incentive for shipowners to seek legal loopholes in order to contract with sub-standard Asian ship recycling facilities, as discussed above.⁴⁵⁰ The mainly European request for better enforcement of the European WSR therefore is difficult as EU shipowners are acting outside of the regulations. The following facts can be assumed: Firstly, if ships are sold on the second hand market considerably prior to reaching recycling age, the European WSR does not apply. Secondly, if EU shipowners announce their decision to send a ship for recycling when this particular ship is outside European waters, detention or other enforcement measures become difficult for practical reasons. Thirdly, if a ship is re-flagged to an open registry, in principle, the EU member state has lost its enforcement jurisdiction. For the first and the third ‘option’, there can be no ‘better enforcement’, leaving only the second disposal option for consideration. Accordingly, if European legislation is expected to actually be applied in practice, the regulatory *status quo* has to be re-considered as well.

c) Future Perspectives

Considering the *status quo* of the European WSR and its regulatory deficiencies, focus must shift to the future. Should the economic incentives employed in the Hong Kong Convention ultimately facilitate its entry-into-force, an effective global regulatory regime will finally be implemented in order to tackle a global problem. Until such time, regional solutions may ease the problem, but do not provide a final solution, and should therefore be formulated in a way that ultimately facilitates the entry-into-force of the Hong Kong Convention. Debates surrounding the ‘Waste Shipment Regulation’ and its application⁴⁵¹ should reflect this temporary state: Once the Hong Kong Convention will have entered into force, the issue of ship recycling should and will be governed by the Hong Kong Convention, thus being exempted from the Waste Shipment Regulation.⁴⁵² Failure to provide for this situation may result in a duplication of regulatory regimes with similar objectives,⁴⁵³ thereby leading to confusion, legal uncertainty and, potentially, weakened compliance.

d) Recommendation

Although the Basel Convention is currently understood as encompassing the issue of ship recycling,⁴⁵⁴ it is neither fit for that purpose, nor considered to be so by the

⁴⁵⁰ See supra chapter “European Ship Recycling Regulation”, B.II.1.b) (pp. 172 et seq.).

⁴⁵¹ Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 12.

⁴⁵² See supra chapter “European Ship Recycling Regulation”, A.II.4.e) (p. 146).

⁴⁵³ Decision IX/30: ‘Dismantling of ships’ (27 June 2008), UN-doc. UNEP/CHW.9/39, at 56.

⁴⁵⁴ See supra chapter “European Ship Recycling Regulation”, A.II.2 (pp. 124 et seq.).

majority of stakeholders.⁴⁵⁵ While it is wrong to put the cart before the horse, the current situation provides an opportunity to proceed into the right direction—which, admittedly, the Basel Convention does—using an instrument developed specifically for that purpose—which the Basel Convention definitely is not. Put into different words: The present state of affairs might provide a good opportunity to draw a clear distinction between the Basel Convention and the European WSR on the one side, and the Hong Kong Convention and related efforts on the other. As presented above, this hope primarily lasts upon the shoulders of the states parties to the Basel Convention.⁴⁵⁶

If the request for better enforcement of existing EU legislation is understood in its broader sense and not only as a reference to the WSR, then this might be a good starting point for European efforts. Ultimately, such an understanding would comprise not only provisions addressing flag state jurisdiction and port state control, but also provisions regulating shipowners, ship recycling facilities and classification societies. Although there are no current substantial legal disputes, there may still be some regulatory measures which have been overlooked in the on-going debate.

2. Other Relevant European Union Legislation

a) General Mechanisms

One of the most important legislative instruments in maritime matters is the Port State Control Directive 2009/16/EC⁴⁵⁷ which aims to “help drastically to reduce substandard shipping in the waters under the jurisdiction of Member States”.⁴⁵⁸ There are no direct linkages to ship recycling as such, as the directive has focused on compliance with regard to a number of international conventions or standards which do not currently have any direct relevance in the ship recycling context. However, measures aiming at better enforcement of existing European legislation will have to take the Port State Control Directive into consideration due to its current role as one of the key enforcement instruments in European maritime law. To reduce substandard shipping, the Port State Control Directive obliges member states to set up national maritime administrations to inspect the ships⁴⁵⁹ calling at their ports.⁴⁶⁰ According to the directive, these inspections aim at monitoring certificates and documents, as required,⁴⁶¹ and obtaining a general impression of the overall condition of the ship.⁴⁶²

⁴⁵⁵ See supra chapter “European Ship Recycling Regulation”, A.II.2.b) (pp. 126 et seq.) and B.II.1. b) (pp. 170 et seq.).

⁴⁵⁶ See supra chapter “European Ship Recycling Regulation”, A.II.3–A.II.4 (pp. 132 et seq.).

⁴⁵⁷ Directive 2009/16/EC of 23 April 2009 on port State control.

⁴⁵⁸ Article 1 of Directive 2009/16/EC.

⁴⁵⁹ Article 4.2 of Directive 2009/16/EC.

⁴⁶⁰ Article 3.1 of Directive 2009/16/EC.

⁴⁶¹ Article 13.1(a) of Directive 2009/16/EC and its Annex IV.

⁴⁶² Article 13.1(b) of Directive 2009/16/EC.

Directive 2009/21/EC⁴⁶³ must also be mentioned. It establishes a legal framework aimed at improving the performance of member states as flag states. More precisely, its purpose is “to ensure that member states effectively and consistently discharge their obligations as flag states, and to enhance safety and prevent pollution from ships flying the flag of a member state”.⁴⁶⁴

Moreover, it is also important to note Directive 2009/15/EC⁴⁶⁵ which—whilst addressing both member states and classification societies—establishes measures regarding the development and implementation of certain safety requirements for ships falling under the scope of a specified list of international conventions.⁴⁶⁶

b) Requirements for Ships

First of all, a few provisions in EU legislation stipulate specific requirements for ships relevant to the present context. These provisions primarily aim at reducing, restricting or prohibiting the use and/or installation of certain materials on ships. In so doing, these regulations and directives have to be considered in the context of the Hong Kong Convention provisions on hazardous materials.

Regulation (EC) No 782/2003,⁴⁶⁷ e.g., tries to reduce the adverse effects on the marine environment and/or human health caused by organotin compounds acting as active biocides in anti-fouling systems on ships.⁴⁶⁸ This objective is facilitated by prohibiting their use on ships flying the flag of, or under the authority, of member states, or entering member states’ ports.⁴⁶⁹ The regulation does not, however, address the removal of organotin compounds as such.⁴⁷⁰ Similarly, Directive

⁴⁶³ Directive 2009/21/EC of 23 April 2009 on compliance with flag State requirements; the directive has already entered into force with the period of transposition of its provisions into member states legislation ending on 17 June 2011, pursuant to its Article 11.

⁴⁶⁴ See Article 1.1 of Directive 2009/21/EC.

⁴⁶⁵ Directive 2009/15/EC of 23 April 2009 on common rules and standards for ship inspection and survey organisations and for the relevant activities of maritime administrations.

⁴⁶⁶ Article 1 of Directive 2009/15/EC; according to Article 2(d), the list of international conventions includes, *inter alia*, 1974 SOLAS and MARPOL 73/78.

⁴⁶⁷ Regulation (EC) No 782/2003 of the European Parliament and of the Council of 14 April 2003 on the prohibition of organotin compounds on ships.

⁴⁶⁸ According to Regulation 4 HKC and its Appendix 1, these organotin compounds are considered as hazardous materials the installation or use of which shall be prohibited and/or restricted.

⁴⁶⁹ See Article 1 of Regulation (EC) No 782/2003.

⁴⁷⁰ See Milieu/COWI, ‘Table of correspondence’ (2009), at 32.

76/769/EEC,⁴⁷¹ *inter alia*, classifies asbestos fibre⁴⁷² and polychlorinated biphenyls (PCB)⁴⁷³ as dangerous substances and, in principle, prohibits the use of the former and restricts the use of the latter within the European Union.⁴⁷⁴ Regulation (EC) No 850/2004⁴⁷⁵ subsequently prohibited the use of PCBs, and ozone-depleting substances in general and hydrochlorofluorocarbons (HCFCs) in particular are governed by Regulation (EC) No 2037/2000⁴⁷⁶ which phases-out the former and ultimately prohibits the use of the latter by 1 January 2015.⁴⁷⁷

Taken together, the standard established by EU legislation for hazardous materials covers a great part of what is presently covered by the provisions of the Hong Kong Convention.

c) Requirements for Ship Recycling Facilities

Ship recycling facilities are subjected to even more European legal provisions. For the sake of clarity, these provisions can be grouped into two general categories: the management of waste, and the regulation of occupational health and safety issues.

With regard to waste management, as mentioned above, Regulation (EC) No 2037/2000 phases-out ozone-depleting substances and ultimately prohibits the use of hydrochlorofluorocarbons (HCFCs) by 1 January 2015.⁴⁷⁸ Recovery operations for ozone-depleting substances are still anticipated to be necessary for the next decades, and are required to be undertaken utilising environmentally acceptable technologies, subject to specific approval processes.⁴⁷⁹ With particular regard to adverse effects resulting from waste-related operations, Directive 2008/98/EC⁴⁸⁰ “lays down

⁴⁷¹ Council Directive 76/769/EEC of 27 July 1976 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations.

⁴⁷² Para. 6 of the Annex to Council Directive 76/769/EEC.

⁴⁷³ Para. 1 of the Annex to Council Directive 76/769/EEC.

⁴⁷⁴ According to Regulation 4 HKC and its Appendix 1, both asbestos and PCB are considered to be hazardous materials the installation or use of which shall be prohibited and/or restricted.

⁴⁷⁵ Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC; the regulation contains, however, a ‘grandfather clause’ providing an exemption to articles already in use at the time of entry-into-force of the regulation.

⁴⁷⁶ Regulation (EC) No 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer.

⁴⁷⁷ Article 5.1 of Regulation (EC) No 2037/2000.

⁴⁷⁸ According to Regulation 4 HKC and its Appendix 1, installations containing ozone-depleting substances on-board new ships are prohibited, with new installations containing HCFCs being exempted until 1 January 2020.

⁴⁷⁹ Article 16.1 of Regulation (EC) No 2037/2000; cf. Regulation 20 HKC which obligates ship recycling facilities to ensure the safe and environmentally sound removal of any hazardous material.

⁴⁸⁰ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

measures to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste”.⁴⁸¹ Specifically, member states are required to ensure that their waste is safely deposited of

[...] without harming the environment and, in particular:

- (a) without risk to water, air, soil, plants or animals;
- (b) without causing a nuisance through noise or odours; and
- (c) without adversely affecting the countryside or places of special interest.⁴⁸²

Therefore, the mixing of hazardous waste is prohibited in principle,⁴⁸³ and the treatment of waste oils is prescribed in detail.⁴⁸⁴ Furthermore, member states are required to oblige their respective “establishment[s] or undertaking[s] intending to carry out waste treatment”⁴⁸⁵ to keep chronological records of quantity, nature and origin of the waste they are processing.⁴⁸⁶ With a focus on the environment and with regard to, *inter alia*, activities such as “production and processing of metals”⁴⁸⁷ and “disposal or recovery of hazardous waste”,⁴⁸⁸ Directive 2008/1/EC⁴⁸⁹ “[...] lays down measures designed to prevent or, where that is not practicable, to reduce emissions in the air, water and land from the abovementioned activities, including measures concerning waste, in order to achieve a high level of protection of the environment taken as a whole”.⁴⁹⁰ With a view to preventing and reducing environmental pollution by asbestos, Directive 87/217/EC⁴⁹¹ furthermore requires member states to take the necessary prevention measures to prevent asbestos emissions into the air or its discharge into the aquatic environment.⁴⁹² Similarly, member states are required to take appropriate measures to ensure that “the demolition of buildings, structures and installations containing asbestos and the removal therefrom of asbestos or materials containing asbestos involving the release of asbestos fibres or dust do not cause significant asbestos environmental

⁴⁸¹ Article 1 of Directive 2008/98/EC.

⁴⁸² Article 13 of Directive 2008/98/EC; see Regulation 20.3 HKC stipulating the safe and environmentally sound management of all hazardous materials and wastes.

⁴⁸³ Article 18 of Directive 2008/98/EC; see Regulation 20.4 HKC establishing criteria regarding the wastes generated from the recycling operations.

⁴⁸⁴ Article 21 of Directive 2008/98/EC.

⁴⁸⁵ For further information on the requirements for obtaining a permit authorising such waste treatment operations, see Articles 23–25 of Directive 2008/98/EC; see Regulations 15.2–15.3 and 16 HKC on the authorisation of ship recycling facilities.

⁴⁸⁶ Article 35.1 of Directive 2008/98/EC; see Regulation 20.3 HKC stipulating the safe and environmentally sound management of all hazardous materials and wastes.

⁴⁸⁷ Para. 2 of Annex 1 to Directive 2008/1/EC.

⁴⁸⁸ Para. 5.1 of Annex 1 to Directive 2008/1/EC.

⁴⁸⁹ Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control.

⁴⁹⁰ Article 1 of Directive 2008/1/EC; see Regulation 19.4 HKC which states that ship recycling facilities should take appropriate measures to prevent spills or emissions throughout the ship recycling operations.

⁴⁹¹ Council Directive 87/217/EEC of 19 March 1987 on the prevention and reduction of environmental pollution by asbestos.

⁴⁹² Article 3 of Directive 87/217/EC; see Regulation 20 HKC establishing guidelines for the safe and environmentally sound management of all hazardous materials and wastes.

pollution”.⁴⁹³ More precise requirements for the removal of asbestos and/or asbestos-containing products can be found in Directive 83/477/EEC⁴⁹⁴ which sets thresholds⁴⁹⁵ and other specific requirements such as a ‘plan of work’,⁴⁹⁶ to be drawn up before demolition commences.⁴⁹⁷

In the workplace safety context, Directive 89/654/EEC⁴⁹⁸ states control requirements for the ventilation of enclosed working spaces prior to their first use.⁴⁹⁹ Additionally, it establishes an obligation for the employer to announce and inform about evacuation routes.⁵⁰⁰ Directive 89/391/EEC,⁵⁰¹ provides general requirements for the employer to take appropriate measures to ensure the safety and health protection of workers.⁵⁰² Furthermore, it establishes requirements for employers to provide first aid facilities.⁵⁰³ Additionally, Directive 89/655/EEC⁵⁰⁴ stipulates minimum safety and health requirements, primarily to be undertaken by the employer, for the use of work equipment.⁵⁰⁵ Ship recycling activities are also

⁴⁹³ Article 7 of Directive 87/217/EC.

⁴⁹⁴ Council Directive 83/477/EEC of 19 September 1983 on the protection of workers from the risks related to exposure to asbestos at work.

⁴⁹⁵ Article 8 of Directive 83/477/EEC.

⁴⁹⁶ Article 12 of Directive 83/477/EEC.

⁴⁹⁷ See Regulation 20 HKC which stipulates requirements for the safe and environmentally sound management of hazardous materials and wastes.

⁴⁹⁸ Council Directive 89/654/EEC of 30 November 1989 concerning the minimum safety and health requirements for the workplace.

⁴⁹⁹ Para. 6 of Annex 1 to Directive 89/654/EC; see Regulation 21 HKC on ‘emergency preparedness and response’; see also Regulation 19.2 HKC on measures preventing harm resulting from unsafe conditions such as safe-for-entry conditions and procedures.

⁵⁰⁰ Para. 4 of Annex 1 to Directive 89/654/EEC.

⁵⁰¹ Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work.

⁵⁰² Therefore, Article 6 of Directive 89/391/EEC explicitly refers to a number of “[...] general principles of prevention: (a) avoiding risks; (b) evaluating the risks which cannot be avoided; (c) combating the risks at source; (d) adapting the work to the individual [...]; (e) adapting to technical progress; (f) replacing the dangerous by the non-dangerous or the less dangerous; (g) developing a coherent overall prevention policy which covers technology, organization of work, working conditions, social relationships and the influence of factors related to the working environment; (h) giving collective protective measures priority over individual protective measures; (i) giving appropriate instructions to the workers”; cf. Regulation 21 HKC on ‘emergency preparedness and response’ as well as its Regulation 19 on general prevention of adverse effects.

⁵⁰³ Article 8 of Directive 89/391/EEC.

⁵⁰⁴ Council Directive 89/655/EEC of 30 November 1989 concerning the minimum safety and health requirements for the use of work equipment by workers at work.

⁵⁰⁵ See Articles 1.1, 3 and 4 of Directive 89/655/EEC; see Regulation 22 HKC on ‘worker safety and training’.

governed by Directive 1999/92/EC⁵⁰⁶ which “lays down minimum requirements for the safety and health protection of workers potentially at risk from explosive atmospheres”.⁵⁰⁷ More precisely, individual employers are required to implement technical and/or organisational measures in order to prevent explosions and to assess specific risks arising from explosive atmospheres.⁵⁰⁸ This is complemented by Directive 98/24/EC⁵⁰⁹ which stipulates minimum requirements for the protection of workers from risks resulting from certain ‘hazardous chemical agents’.⁵¹⁰ These provisions are ultimately facilitated by Directive 96/82/EC⁵¹¹ which requires employers to establish accident prevention policies⁵¹² and emergency plans,⁵¹³ and to inform their employees—and the public if necessary—accordingly.⁵¹⁴

Generally, a great many EU provisions currently in force govern issues related to ship recycling. While this assessment initially sounds quite positive, there is a caveat: Flag state jurisdiction and subsidiary port state jurisdiction means the requirements for ships can be implemented and enforced rather easily. However, all the requirements for ship recycling facilities are primarily theoretical in nature, due to the lack of ship recycling capacity available under the authority of EU member states. Accordingly, while better enforcement of the ship-related provisions might be a reasonable approach, at the present time better enforcement provisions relating to ship recycling facilities simply do not make too much sense.

3. Summary

There is a vast array of European Union provisions relevant to ship recycling. These provisions address both ship-related and facility-related requirements in order to protect the safety and health of workers as well as the environment against adverse effects.

The regulatory patchwork of more than a dozen different directives and regulations enacted during the last 30 years that had to be considered to provide this analysis however highlights a serious problem—that of fragmentation.⁵¹⁵ This

⁵⁰⁶ Directive 1999/92/EC of the European Parliament and of the Council of 16 December 1999 on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres.

⁵⁰⁷ Article 1 of Directive 1999/92/EC.

⁵⁰⁸ Articles 3 and 4 of Directive 1999/92/EC; see Regulation 19.1 HKC.

⁵⁰⁹ Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work.

⁵¹⁰ Article 1.1 and Articles 4–8 of Directive 98/24/EC.

⁵¹¹ Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances (*Seveso II*); see in general Regulations 19 and 21 HKC.

⁵¹² Articles 7 and 9 of Directive 96/82/EC.

⁵¹³ Article 11 of Directive 96/82/EC.

⁵¹⁴ Article 13 of Directive 96/82/EC.

⁵¹⁵ See Koskeniemi/Leino, ‘Fragmentation of international law? – Postmodern Anxieties’, 15 L. J. Int’l L. 553–579 (2002); Sand, ‘The evolution of international environmental law’, in Bodansky/

is not a new finding. In 2007, the European Commission published a report with the title “An Integrated Maritime Policy for the European Union”.⁵¹⁶ This report, while emphasising the fundamental importance of Europe’s various interactions with the sea, depicted the *status quo* as critical in terms of conflicts between use and protection of the marine environment. Recognising that all matters relating to Europe’s oceans are interlinked, it proposed a joint, intersectoral approach in order to “enhance Europe’s capacity to face the challenges of globalisation and competitiveness, climate change, degradation of the marine environment, maritime safety and security, and energy security and sustainability”.⁵¹⁷ It is hoped that this approach would put an end to “compartmentalised policy development and decision-making”⁵¹⁸ through a changed understanding of interactions, the development of common tools and improved synergies in identification and utilisation. The report “An EU strategy for better ship dismantling”,⁵¹⁹ issued by the EUROPEAN COMMISSION in 2008 endorsed this proposal. Still, while raising awareness and providing a theoretical framework upon which future measures can be built, these reports have not put an end to fragmentation.

Additionally, and in spite of the fragmented patchwork of relevant provisions, a few essential issues are not yet (completely) governed by European Union legislation. These include the establishment of an inventory of hazardous materials,⁵²⁰ the obligation to conduct a number of surveys during the lifetime of a particular ship,⁵²¹ the issuance and endorsement of certificates,⁵²² the establishment of a ship recycling plan,⁵²³ the prevention of adverse effects on the environment⁵²⁴ and, particularly, the prevention of spills or emissions which may cause harm to the environment,⁵²⁵ the establishment of an emergency preparedness and response plan,⁵²⁶ control mechanisms for ship recycling facilities,⁵²⁷ notification and reporting requirements,⁵²⁸ an obligation

Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 30, at 40; for a consideration of its practical implications, see Bianchi, ‘Looking ahead: international law’s main challenges’, in Armstrong (ed.), *Routledge Handbook of International Law* (2009), 392, at 406–407.

⁵¹⁶ European Commission, ‘An Integrated Maritime Policy for the European Union’, EU-doc. COM(2007) 575.

⁵¹⁷ *Ibidem*, at 2.

⁵¹⁸ *Ibidem*, at 3.

⁵¹⁹ European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767.

⁵²⁰ Regulation 5 HKC.

⁵²¹ Regulation 10 HKC.

⁵²² Regulation 11 HKC.

⁵²³ Regulation 9 HKC.

⁵²⁴ Regulation 19.3 HKC.

⁵²⁵ Regulation 19.4 HKC.

⁵²⁶ Regulation 21 HKC.

⁵²⁷ Regulation 15 HKC.

⁵²⁸ Regulations 24 and 25 HKC.

to communicate specific information to the IMO,⁵²⁹ inspections to determine compliance,⁵³⁰ cooperation procedures for the detection of violations,⁵³¹ and the obligation to sanction violations under national legislation.^{532,533}

This assessment shows the *status quo* to be inadequate, and illustrates the necessity for further legislative efforts of the European Union.

III. Early Transposition

A first suggestion regarding further legislative initiatives therefore concentrates on early transposition. Early transposition of the Hong Kong Convention as adopted or—at least—the transposition of its key mechanisms into binding obligations for the EU member states might even turn the present status to Europe's advantage.⁵³⁴ Furthermore, the European Union could consider augmenting the scope of application of future regulatory instruments in order to also encompass state-owned ships—something the IMO in its drafting efforts has always tried to avoid.⁵³⁵ At the same time, it seems unrealistic that the establishment of EU legislation in this respect would “make ratification [of the Hong Kong Convention] by Member States apparently abundant”⁵³⁶ because compliance with obligations that are already being complied with does not involve future trade-offs which might prevent EU member states from ratifying the Hong Kong Convention. Additionally, as the regulatory measure would rest upon the framework established by the Hong

⁵²⁹ Article 12 HKC.

⁵³⁰ Article 8 HKC.

⁵³¹ Article 9 HKC.

⁵³² Article 10 HKC.

⁵³³ See Milieu/COWI, ‘Table of correspondence’ (2009).

⁵³⁴ European Commission, ‘Report on the public consultation on new initiative regarding dismantling of ships’ (2009), available at <<http://ec.europa.eu/environment/waste/ships/pdf/summary%20of%20contributions.pdf>> accessed 31 January 2012, at 1: “[...] harmonised transposition at EU level will ensure a more level playing field and reduce administrative burdens for ship owners and recycling yards in the EU”.

⁵³⁵ IMO's main reason for usually exempting state-owned ships relates to concerns about national sovereignty; in EU legislation, such an exemption might only be allowed if a member state considers it “necessary for the protection of the essential interests of its security” according to Article 346.1 TFEU, a condition which probably would apply in case of a number of warships; to furthermore extent the scope to ships below 500 GT is not considered necessary due to their insignificance with regard to the crucial matters at hand; see European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 5.2.

⁵³⁶ European Commission, ‘Report on the public consultation on new initiative regarding dismantling of ships’ (2009), at 1.

Kong Convention, there would be no reason to accuse the European Union of taking the path of unilateral action.⁵³⁷

1. Choice of Instrument

As regards the choice of the legislative instrument, Article 288 TFEU (ex-Article 249 EC) provides for two possible instruments, i.e. regulations and directives.⁵³⁸ It *inter alia* states:

A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.

A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods.

Accordingly, a regulation “applies to objectively determined situations and produces legal effects with regard to categories of persons regarded generally and in the abstract.”⁵³⁹ More importantly, it is directly applicable in its entirety within the member states of the European Union, i.e. it does not have to be transposed into national legislation.⁵⁴⁰ Therefore, the choice of a regulation over a directive as the regulatory instrument provides the clear advantage of immediate effect of its provisions.

A directive, on the other hand, while binding as well, leaves both form and methods to the discretion of the national authorities.⁵⁴¹ In contrast to a regulation, a directive thus requires national transposition for its implementation. This not only results in a delay of implementation,⁵⁴² it also leads to a lack of uniformity as

⁵³⁷ In this context, see Angelo, ‘The International Maritime Organization and Protection of the Marine Environment’, in Nordquist/Moore (eds.), *Current Maritime Issues and the International Maritime Organization* (1999), at 110; Tan, *Vessel-Source Marine Pollution* (2005), at 354; see also the report of the Joint Working Group of the International Labour Organization, the International Maritime Organization and the Basel Convention on Ship Scrapping on its third session (31 October 2008), UN-doc. UNEP/CHW/OEWG/7/Inf/17, para. 57.

⁵³⁸ For an empirical analysis in this respect, see von Bogdandy/Bast/Arndt, ‘Handlungsformen im Unionsrecht’, 62 *ZaöRV* 77 (2002), 89–94.

⁵³⁹ ECJ, Case 101/76, *Koninklijke Scholten Honig NV* [5 May 1977], para. 21.

⁵⁴⁰ Bieber/Epiney/Haag, *Die Europäische Union*⁹ (2011), § 6 para. 30; Hobe, *Europarecht*⁵ (2010), § 10 para. 26; Haratsch/Koenig/Pechstein, *Europarecht*⁷ (2010), para. 382.

⁵⁴¹ Bieber/Epiney/Haag, *Die Europäische Union*⁹ (2011), § 6 para. 32; Hobe, *Europarecht*⁵ (2010), § 10 para. 28; Haratsch/Koenig/Pechstein, *Europarecht*⁷ (2010), para. 386.

⁵⁴² Notwithstanding the fact that directives were not considered binding before implementation *ab initio*, the ECJ has developed the doctrine of ‘direct effect’ which allows also directives to have immediate legal effect provided that the time-limit for transposition is exceeded and their wording is sufficiently clear, precise and unconditional; see ECJ, Case C-148/78, *Pubblico Ministero v Tullio Ratti* [5 April 1979], paras. 20–23; ECJ, Case C-8/81, *Ursula Becker v Finanzamt Münster-Innenstadt* [19 January 1982], paras. 21–25; ECJ, Case C-103/88, *Fratelli Costanzo SpA v Comune di Milano* [22 June 1989], paras. 29–31; irrespective of the doctrine of ‘direct effect’ and similarly

regards implementation across the member states of the European Union.⁵⁴³ The directive has been chosen in the past for cases where the European Commission “recognized the need for considerable flexibility of action by the member states” and felt that a regulation would “be inappropriate to address the varied problems in each region.”⁵⁴⁴

The opposite is true, however, with regard to ship recycling measures: While several indents of the European Commission’s ‘Marine Strategy Directive’ emphasize the diversity of conditions, problems and solutions,⁵⁴⁵ the general objective of the ‘EU strategy on better ship dismantling’ is to “ensure that ships [...] are dismantled only in safe and environmentally sound facilities worldwide, in line with the draft Ship Recycling Convention”.⁵⁴⁶ Accordingly, both form and methods of ship recycling procedures will clearly be prescribed by set (international) standards, and they will not be left to the discretion of member states. Similarly, the European Commission has pointed out in a parallel situation that “non-harmonised introduction [...] in the Community would be to the detriment of the shipping industry and easily result in a distortion of competition between Member States.”⁵⁴⁷

to Article 18 VCLT, EU member states however face an obligation not to defeat the object and purpose of a directive by acting contrarily; see ECJ, Case C-129/96, *Inter-Environnement Wallonie ASBL v Région Wallonne* [18 December 1997], paras. 40–45; ECJ, Case C-144/04, *Mangold* [22 November 2005], para. 67.

⁵⁴³ Nonetheless, even where a regulation is chosen as the regulatory instrument, “control measures to ensure compliance with legal requirements remain under the competence of each Member State, which [eventually] constitutes an obstacle to uniformity”; see Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 21.

⁵⁴⁴ Juda, ‘The European Union and Ocean Use Management: The Marine Strategy and the Maritime Strategy’, 38 *Ocean Dev. & Int’l L.* 259 (2007), at 266.

⁵⁴⁵ See, e.g., the tenth and eleventh indent of Directive 2008/56/EC of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive):

(10) The diverse conditions, problems and needs of the various marine regions or subregions making up the marine environment in the Community require different and specific solutions. That diversity should be taken into account at all stages of the preparation of marine strategies, but especially during the preparation, planning and execution of measures to achieve good environmental status in the Community’s marine environment at the level of marine regions or subregions.

(11) Each Member State should therefore develop a marine strategy for its marine waters which, while being specific to its own waters, reflects the overall perspective of the marine region or subregion concerned. [...].

⁵⁴⁶ European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 4.

⁵⁴⁷ European Commission, ‘Proposal for a Regulation of the European Parliament and the Council on the Prohibition of Organotin Compounds on Ships’, EU-doc. COM(2002) 396, at 5.

Finally, it has frequently been purported that, “other things being equal, directives should be preferred to regulations”.⁵⁴⁸ This was suggested with a view to the subsidiarity principle and, more particularly, the proportionality principle, as referred to in Article 5.4 EUV.⁵⁴⁹ In assessing the implications of in particular the latter principle for the choice of the legislative instrument, it has to be put on record first of all that competent European Union bodies have wide discretion in this respect.⁵⁵⁰ Pursuant to the proportionality principle, these legislative bodies have to choose both form and content of their measures in a way which delimits EU member states’ constitutional systems only insofar as is absolutely necessary to successfully implement the regulatory objective.⁵⁵¹ Hence, choosing a directive as legislative instrument is considered to be more appropriate as it is, in principle, more ‘considerate’ of member states’ competencies.⁵⁵² A directive, at least pursuant to the regulatory idea as stated in Article 288 TFEU, is only binding upon each member state “as to the result to be achieved”. The remaining discretion each member state withholds as regards both form and method of transposition therefore is an appropriate but also essential remainder of national sovereignty.⁵⁵³ A regulation, on the other hand, puts in principle the exercise of national competencies much more under constraint.⁵⁵⁴ National legislation is just replaced; member states do not have discretion whatsoever.⁵⁵⁵ This, again, would argue against a regulation as instrument of choice in the present context. Nevertheless, the concept of directives in European Union legislation is much less a concept of

⁵⁴⁸ ‘Protocol on the application of the principles of subsidiarity and proportionality’, OJ C 340, 10 November 1997, 105, para. 6; interestingly, such an explicit statement has been omitted in the newer versions of the protocol; see its current version, OJ C 306, 17 December 2007, pp. 150–153.

⁵⁴⁹ Bast/von Bogdandy, in Grabitz/Hilf/Nettesheim (eds.), *Recht der Europäischen Union*⁴⁴ (2011), Art. 5 EUV para. 55.

⁵⁵⁰ Emmerich-Fritsche, *Der Grundsatz der Verhältnismäßigkeit als Direktive und Schranke der EG-Rechtsetzung* (2000), at 300.

⁵⁵¹ Emmerich-Fritsche, *Der Grundsatz der Verhältnismäßigkeit als Direktive und Schranke der EG-Rechtsetzung* (2000), at 300; Haratsch/Koenig/Pechstein, *Europarecht*⁷ (2010), para. 178; Bast/von Bogdandy, in Grabitz/Hilf/Nettesheim (eds.), *Recht der Europäischen Union*⁴⁴ (2011), Art. 5 EUV paras. 71–72.

⁵⁵² For further references, see Hilf, ‘Die Richtlinie der EG – ohne Richtung, ohne Linie?’, 28 *EuR* 1 (1993), at 5 and 20; cf. von Danwitz, ‘Rechtswirkungen von Richtlinien in der neueren Rechtsprechung des EuGH’, 62 *JZ* 697 (2007), at 698; Bast/von Bogdandy, in Grabitz/Hilf/Nettesheim, *Recht der Europäischen Union*⁴⁴, Art. 5 EUV paras. 55 and 66; Bieber/Epiney/Haag, *Die europäische Union*⁹ (2011), § 6 para. 32; see also the ‘Protocol on the application of the principles of subsidiarity and proportionality’, OJ C 340, 10 November 1997, 105, para. 6.

⁵⁵³ Emmerich-Fritsche, *Der Grundsatz der Verhältnismäßigkeit als Direktive und Schranke der EG-Rechtsetzung* (2000), at 302–303; von Danwitz, ‘Rechtswirkungen von Richtlinien in der neueren Rechtsprechung des EuGH’, 62 *JZ* 697 (2007), at 698; see also Hilf, ‘Die Richtlinie der EG – ohne Richtung, ohne Linie?’, 28 *EuR* 1 (1993), at 7; in this context, see also Article 4.2 EUV requiring the European Union to *inter alia* respect the national identities of its member states.

⁵⁵⁴ Haratsch/Koenig/Pechstein, *Europarecht*⁷ (2010), para. 178.

⁵⁵⁵ Emmerich-Fritsche, *Der Grundsatz der Verhältnismäßigkeit als Direktive und Schranke der EG-Rechtsetzung* (2000), at 301–302.

institutionally showing respect for member states' sovereignty than it is an instrument of legal harmonisation.⁵⁵⁶ Legal harmonisation however requires that a variety of different legally-binding standards already exists which is not the case in European ship recycling regulation. Ship recycling therefore poses more of a challenge for novel legislation and standard-setting. Moreover, some academics even argue that a directive is not necessarily the more autonomy-friendly instrument.⁵⁵⁷ Therefore, the rule that directives should be preferred to regulations does not automatically follow from the proportionality principle. Furthermore, the European Commission aims at establishing uniform ship recycling standards. In doing so, it will attempt to avoid any national deviations because it considers it important not to enact a further 'race to the bottom' – this time within the borders of the European Union – but instead to establish certain unified minimum standards.⁵⁵⁸ This outcome cannot be achieved by simply setting a result to be achieved and leaving both form and methods to the discretion of member states.

Therefore, if the European Commission is aiming to establish a level playing field within the European Union in matters relating to ship recycling, a regulation is the appropriate legal instrument.⁵⁵⁹

2. Transposition of the Hong Kong Convention

The first, and obviously easiest, way of directly regulating the issue at hand would be to adopt a regulation transposing the Hong Kong Convention into European Union legislation⁵⁶⁰ while at the same time recommending member states sign and ratify the Hong Kong Convention at the earliest possible opportunity.

⁵⁵⁶ Nettesheim, 'Rechtsquellen des Europäischen Unionsrechts', in Oppermann/ Classen/ Nettesheim (eds.), *Europarecht*⁵ (2011), 103 paras. 83–84; von Danwitz, 'Rechtswirkungen von Richtlinien in der neueren Rechtsprechung des EuGH', 62 JZ 697 (2007), at 698; for early thoughts in this respect, see von der Groeben, 'Die Politik der Europäischen Kommission auf dem Gebiet der Rechtsangleichung', NJW 359 (1970), at 361; see also Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention' (2009), at 21–22.

⁵⁵⁷ Bast/von Bogdandy, in Grabitz/Hilf/Nettesheim (eds.), *Recht der Europäischen Union*⁴⁴ (2011), Art. 5 EUV para. 72; for further references, see Emmerich-Fritsche, *Der Grundsatz der Verhältnismäßigkeit als Direktive und Schranke der EG-Rechtssetzung* (2000), at 302.

⁵⁵⁸ See, e.g., the European Commission's reasoning when it transposed the 2001 AFS Convention into European legislation: "A Regulation is the appropriate legal instrument as it imposes on shipowners and Member States, directly and within a short time frame, precise requirements to be implemented at the same time and in the same manner throughout the Community. [...]"; Regulation (EC) No 782/2003 of 14 April 2003 on the prohibition of organotin compounds on ships.

⁵⁵⁹ Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention' (2009), at 21–22.

⁵⁶⁰ This approach has also been followed in the case of the International Convention on the Control of Harmful Anti-Fouling Systems on Ships (2001 AFS Convention) which was transposed as a whole into European Union legislation through Regulation (EC) No 782/2003 of 14 April 2003 on the prohibition of organotin compounds on ships; Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention' (2009), at 13.

This approach would have several advantages: Firstly, it would secure a common, harmonised policy throughout the European Union. Secondly, it would make use of the intersectoral drafting efforts of the MEPC as well as the Basel Secretariat and the ILO which could facilitate further development of the text more easily.⁵⁶¹ Thirdly, if transposed properly, it could alleviate and solve the factual problems which the Basel Convention faces with regard to recycling of ships.⁵⁶² Fourthly, by being directly and immediately applicable to almost 20 % of the world's seagoing merchant fleet, it would be a faster means of establishing a standard in the field of ship recycling which could then be raised in the future more easily.⁵⁶³ Fifthly, by stipulating obligations for the interim period until the entry-into-force of the Hong Kong Convention, it would not be a mere duplication of a future instrument.⁵⁶⁴ And finally, if transposed properly, it would also provide an incentive for each member state to advance with its respective ratification of the Hong Kong Convention as this would not create additional administrative and/or financial burdens.⁵⁶⁵

Generally, concerted action by the European Union could have an important overall influence on the ratification progress of international instruments.⁵⁶⁶ Additionally, if the ship-related requirements are made mandatory not only for ships flying the flags of EU member states but also for all the other merchant ships calling at European Union ports, competitive disadvantages for European shipowners could be more easily avoided.⁵⁶⁷ Such extraterritorial implications could, e.g., be justified by the mere fact that "to the extent the early regional implementation of the

⁵⁶¹ In this respect, the history of the Hong Kong Convention is already a 'success story' as its drafting process managed to tackle the fragmentation issue by involving a vast variety of different stakeholders; for further information on 'institutional fragmentation' in this context, see Gehring, 'Treaty-Making and Treaty Evolution', in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 467, at 475–476.

⁵⁶² See *supra* chapter "European Ship Recycling Regulation", B.II.1.b) (pp. 172 et seq.).

⁵⁶³ See European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 5.1; for an ultimately sceptical perspective with regard to the problem of EU regulative action intensifying the flagging-out issue, see *supra* chapter "Entry-Into-Force Provision", note 317 (p. 98).

⁵⁶⁴ European Commission, 'Proposal for a Regulation of the European Parliament and of the Council on the Prohibition of Organotin Compounds on Ships', EU-doc. COM(2002) 396, at 4.

⁵⁶⁵ See European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 5.1; in this context, see also European Commission, 'Proposal for a Regulation of the European Parliament and of the Council on the Prohibition of Organotin Compounds on Ships', EU-doc. COM(2002) 396, at 7–8.

⁵⁶⁶ European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 5.1: "If the EU [...] takes action, in compliance with the provisions of the Ship Recycling Convention, this would carry weight in the international arena and could speed up the entry into force of the Convention. Experience with IMO conventions such as MARPOL and AFS has shown that third countries frequently ratify and implement an international agreement after the EU has made its rules binding for all ships within European waters".

⁵⁶⁷ See European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 5.1.

rules only reiterates what has been agreed at a global level, the measures [...] [are] in line with the global rules and ‘in the spirit of’ the international community”.⁵⁶⁸

3. Transposition of Key Requirements

A less attractive⁵⁶⁹ but nonetheless reasonable option would be to concentrate on the primary mechanisms as established by the Hong Kong Convention, and to create respective regulatory obligations for the member states of the European Union accordingly.⁵⁷⁰ Focussing on these main mechanisms, as adopted at the Diplomatic Conference in Hong Kong in 2009, seems much more reasonable than developing specific European instruments different from the Hong Kong Convention mechanisms as the latter would only be counter-productive and possibly even an obstacle to the ratification of the Hong Kong Convention.⁵⁷¹

To proceed down this path would require a concentration on the key elements of the Hong Kong Convention, particularly the requirements for ships with a focus on the inventory of hazardous materials, the requirements for ship recycling facilities regarding their authorisation and the ship recycling plan, as well as the main survey and reporting obligations established by the Hong Kong Convention.⁵⁷²

The duty to initially establish an inventory of hazardous materials must be enacted, as such an obligation does not exist yet under EU legislation. This obligation could be further complemented by modifications of the Port State Control Directive 2009/16/EC. Additionally, Directive 2009/15/EC⁵⁷³ could be

⁵⁶⁸ Ringbom, *The EU Maritime Safety Policy and International Law* (2008), at 245.

⁵⁶⁹ Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 22: “It is important to note here that if the EU opts for an early transposition of the Convention, it would be preferable to transpose its requirements in their entirety. If only selected key requirements are transposed, there may be inconsistencies between the Member States obligations at EU and international level or incoherent application between those Member States that have ratified the Convention and thus have obligations on the international level and those Member States that have not ratified the Convention and are thus bound only by the key requirements transposed by the EU. Some stakeholders have in fact questioned the merit of implementing only certain elements of the Convention in EU law, stressing the importance of ensuring that the Convention is seen as the key legislative instrument on the safe and environmentally sound recycling of ships. Transposing only certain aspects of the Convention on a regional basis will establish double standards on a global basis and may discourage States from ratifying and implementing the IMO Convention”; for concerns relating to the ‘fragmentation of international law’ in this respect, see, e.g., Lagoni, ‘Umwelt und Schiffssicherheit im Völkerrecht und im Recht der Europäischen Gemeinschaften’, 32 AVR 382 (1994), at 396.

⁵⁷⁰ In this context, see the briefing following the European Commission’s public consultation: ‘Europe’s welcome scrapping action’, Tradewinds, 19 June 2009, at 1.

⁵⁷¹ See European Commission, ‘Proposal for a Regulation of the European Parliament and of the Council on the Prohibition of Organotin Compounds on Ships’, EU-doc. COM(2002) 396, at 6.

⁵⁷² See European Commission, ‘EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 5.1.

⁵⁷³ Directive 2009/15/EC of 23 April 2009 on common rules and standards for ship inspection and survey organisations and for the relevant activities of maritime administrations.

amended to oblige classification societies to verify the existence and content of an inventory of hazardous materials on-board new ships.⁵⁷⁴ The question of whether this provision should be applicable to all ships calling at EU ports should be answered in the affirmative, as this would alleviate concerns regarding the distortion of competition for ships flying the flags of EU member states.⁵⁷⁵

The most important obligations regarding ship recycling facilities relate to their authorisation as well as to the ship recycling plan. Although authorisation is adequately covered by the requirements established through Article 23 of Directive 2008/98/EC,⁵⁷⁶ a reference to the ‘Guidelines for the authorisation of Ship Recycling Facilities’⁵⁷⁷ could be taken into account. The requirement for ship recycling facilities to develop a ship recycling plan⁵⁷⁸ for each ship prior to recycling is not yet covered by European Union legislation at all.⁵⁷⁹ Therefore, provisions should be developed accordingly which also take into account the ‘Guidelines for the development of the Ship Recycling Plan’, which were adopted at MEPC 62.⁵⁸⁰ It should also be kept in mind that these provisions would only apply to those ship recycling facilities which are or will be operated within the territory of member states of the European Union. This might be a reason not to concentrate too much on establishing provisions in this respect, but rather employing appropriate economic incentives through the audit and certification scheme which would be open to all ship recycling facilities worldwide.⁵⁸¹

The main surveying obligations of the Hong Kong Convention aim principally at ensuring compliance with Regulation 5, i.e. the provision on the inventory of hazardous materials.⁵⁸² As there is no requirement under European Union law to establish and maintain such an inventory, this is also not yet covered by European Union legislation⁵⁸³ and would therefore have to be established by future regulation. To ensure compliance with this provision, the definition of ‘international

⁵⁷⁴ Milieu/COWI, ‘Table of correspondence’ (2009), at 17.

⁵⁷⁵ See European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 5.1.

⁵⁷⁶ Directive 2008/98/EC of 19 November 2008 on waste.

⁵⁷⁷ Currently under development; see Conference Resolution 4: ‘Future Work by the Organization Pertaining to the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009’, IMO-doc. SR/CONF/46, at 10.

⁵⁷⁸ The ship recycling plan is considered the “key document in the Convention as it links the authorisation of the recycling facility and the hazardous content of the ship as stated in the IHM”; see Milieu/COWI, ‘Notes on certification of ship recycling facilities’ (2009), at 6.

⁵⁷⁹ Milieu/COWI, ‘Table of correspondence’ (2009), at 22–23.

⁵⁸⁰ MEPC resolution, ‘2011 Guidelines for the Development of the Ship Recycling Plan’ (15 July 2011), Annex 2 to IMO-doc. MEPC 62/24.

⁵⁸¹ See *infra* chapter “European Ship Recycling Regulation”, B.IV.1 (p. 195).

⁵⁸² See *supra* chapter “The Hong Kong Convention”, C.III.1.a) (pp. 35 et seq.).

⁵⁸³ Milieu/COWI, ‘Table of correspondence’ (2009), at 19.

conventions' as contained in Article 2(d) of Directive 2009/15/EC⁵⁸⁴ should be amended to also encompass the Hong Kong Convention.⁵⁸⁵

As regards the key reporting obligations, those aimed at ship recycling facilities have to be mentioned first, i.e. notification prior to recycling and report upon completion. Again, there is currently no relevant European Union legislation available.⁵⁸⁶ Provisions of the European WSR, such as the prior informed consent regime, are not relevant in this context, as the early transposition of the Hong Kong Convention or its key requirements renders the WSR inapplicable to the ship recycling process.⁵⁸⁷ Therefore, appropriate reporting obligations would also have to be established.

4. Criticism

A number of concerns have been put forward regarding potential disadvantages linked to the transposition of the Hong Kong Convention as a whole and/or of its key mechanisms.

As regards transposition measures in general, be it either the Hong Kong Convention as a whole, or its key mechanisms individually, concerns have been raised related to the possible re-flagging of ships as a result from early transposition.⁵⁸⁸ Obviously, this concern is only relevant until the Hong Kong Convention has entered into force. With a view to the lower costs related to the re-flagging of ships and considering the willingness of open registries to accept 'foreign' ships, the scenario of a considerable number of ships being re-flagged after transposition has to be considered a fairly realistic short-term risk.⁵⁸⁹

Other voices argue against transposition measures in general, pointing out that early transposition could also result in the redirection of transportation to non-EU ports.⁵⁹⁰ Bearing in mind the numbers of ships calling at ports of member states of

⁵⁸⁴ Directive 2009/15/EC of 23 April 2009 on common rules and standards for ship inspection and survey organisations and for the relevant activities of maritime administrations.

⁵⁸⁵ Milieu/COWI, 'Table of correspondence' (2009), at 19.

⁵⁸⁶ Ibidem, at 46; in this context however, one has to take into account that the ship recycling capacity currently available within EU member states' territories is not sufficient; see also European Commission, 'Green Paper on better ship dismantling', EU-doc. COM(2007) 269, para. 2.2.

⁵⁸⁷ See supra chapter "European Ship Recycling Regulation", B.II.1.c) (p. 195).

⁵⁸⁸ Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention' (2009), at 23.

⁵⁸⁹ European Commission, 'Impact Assessment for an EU strategy on better ship dismantling', EU-doc. SEC(2008) 2846, at 43; these risks could also have medium-term implications in case the Hong Kong Convention is not ratified in due course – a scenario which presently is not too unrealistic.

⁵⁹⁰ Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention' (2009), at 23.

the European Union every single day and taking into consideration the cargo volumes transported, one must conclude that this concern lacks relevance. Even if the Hong Kong Convention were to enter into force as late as 2025, the additional costs incurred by shipowners resulting from transposed mechanisms of the Hong Kong Convention will never amount to the costs that would arise from shifting European cargo transport from sea routes to road transport from non-European ports.⁵⁹¹

Additionally, general criticism against transposition measures focuses on the fact that the timing is too late considering that the phasing-out period of single hull tankers stipulated by MARPOL 73/78 has allegedly had its peak in 2010.⁵⁹²

There is as yet no clear approach for the transposition of key requirements of the Hong Kong Convention, due to the fact that the Hong Kong Convention is one of the—so far—quite successful examples of intersectoral cooperation between actors from different backgrounds such as IMO, ILO, and the Basel Convention. A transposition of only a reduced number of ‘key’ mechanisms of the Hong Kong Convention could therefore risk destabilising the balance achieved by these different stakeholders.⁵⁹³

With regard to the inventory of hazardous materials, the maritime industry fears that the related obligations may lead to a disclosure of intellectual property.⁵⁹⁴ Furthermore, it is argued that costs resulting from both the establishment and maintenance of the inventory of hazardous materials might influence competition between shipowners,⁵⁹⁵ ultimately amounting to an extra economic burden for the shipping industry within the European Union.⁵⁹⁶ The concerns regarding extra costs cannot be dismissed: There will be additional costs resulting from the inventory of

⁵⁹¹ This becomes even less realistic, if one considers that “[t]here are only few suitable ports connected by land to the EU (for example, Istanbul in Turkey, Durres in Albania and St. Petersburg in Russia), and the investments to both develop the ports and the rail and road links to facilitate large scale cargo transport by land do not seem economically justified”; Milieu/COWI, ‘Note on the ship dismantling fund’ (2009), para. 3.3; Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 23.

⁵⁹² See the submission by India to MEPC 58, ‘Recycling capacity for entry into force criteria for the International Convention for the Safe and Environmentally Sound Recycling of Ships’ (13 August 2008), IMO-doc. MEPC 58/3/14, para. 13: “In 2001 [...] there were many predictions that the rate of demolition of single-hull tankers would skyrocket. Nevertheless, this did not happen due to changed market conditions. We therefore saw single-hull tankers being converted into double hull tankers and then into bulk carriers and FPSOs”.

⁵⁹³ Moreover, if unilateral measures are established with a view to initiating a ‘domino effect’, then it might be particularly worthwhile to consider an extensive catalogue rather than a limited set of respective measures; see, e.g., Gächter, ‘Conditional cooperation: Behavioral regularities from the lab and the field and their policy implications’, in Frey/Stutzer (eds.), *Economics and Psychology* (2007), 19, at 40.

⁵⁹⁴ Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 30.

⁵⁹⁵ *Ibidem*, at 30.

⁵⁹⁶ *Ibidem*, at 30.

hazardous materials, and these costs will have to be borne by the shipowners to which the transposed regulation applies. It is rather difficult, however, to comprehend the first concern. The fear regarding the potential disclosure of intellectual property is unfounded: As the guideline is still being debated under the auspices of the MEPC, thus allowing industry observers to comment and have their concerns noted, a mechanism will be introduced to ensure transparency as far as necessary, while still protecting intellectual property.

5. Summary

Notwithstanding the fact that a few arguments can also be enumerated in favour of adopting a directive to transpose ship recycling measures into binding EU legislation, the appropriate legal instrument, just like in a number of other IMO conventions, is an EU regulation.

Following the example of the transposition of the 2001 AFS Convention *via* Regulation (EC) No 782/2003, it would be most advisable to transpose the whole convention into European Union legislation. Similar to the approach taken by the mentioned regulation, a two-step approach might provide an appropriate technique here as well, thereby taking into account the different regimes applicable to ships flying the flags of EU member states, and others. Such an instrument might also provide a preliminary solution to the current problems in practice, as witnessed with regard to the application of the European WSR/Basel Convention. A less attractive but nonetheless both reasonable and feasible option would include the transposition of only the key requirements of the Hong Kong Convention. Such an approach would set various standards, albeit at a lower level, but it would nonetheless provide a valuable first step in regulating the issue at stake. In selecting these key requirements of the Hong Kong Convention, due respect should in any case be paid to the balance achieved by intersectoral cooperation, primarily between IMO, ILO and the Basel Secretariat, as well as to the package character of the Hong Kong Convention as adopted by the most relevant flag and recycling states at the Diplomatic Conference on Ship Recycling.⁵⁹⁷

Still, one cannot deny the risk that the problem of re-flagging of ships currently flying the flags of EU member states to non-European flags of convenience might intensify as a result of European regulatory measures. This is why the issue of flagging-out should also be explicitly addressed via complementary measures.

In sum, while most criticisms have been resolved, alleviated, or proven insubstantial, the only remaining major issue is the re-flagging problem. This will be addressed at a later point.⁵⁹⁸ Against this background, early transposition of the

⁵⁹⁷ Cf. Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention' (2009), at 32.

⁵⁹⁸ See *infra* chapter "European Ship Recycling Regulation", B.IV.4 (pp. 209 et seq.).

Hong Kong Convention as a whole into a binding EU regulation seems to be the most preferable solution.

IV. Development of Complementary Measures

The overarching objective of these European Union measures “to ensure that ships with a strong link to the EU in terms of flag or ownership are dismantled only in safe and environmentally sound facilities worldwide, in line with the [...] Ship Recycling Convention”.⁵⁹⁹

Although not entitled to become a party to the Hong Kong Convention itself, the European Union is seeking to facilitate its progress. In so doing, the European Union bodies—whilst not being bound by the provisions of the Hong Kong Convention—consider themselves somewhat stuck between Article 1.2 HKC on the one side,⁶⁰⁰ and the individual fears of some stakeholders on the other.⁶⁰¹

Ultimately, this might lead to a compromise which sees the European Union concentrate on measures that focus on the compliance of ships linked to the EU with the transposed provisions of the Hong Kong Convention. This means, *inter alia*, that potential loopholes allowing a circumvention of these obligations need to be reduced as far as practically feasible, with the result that the issue of re-flagging will eventually need to be addressed.⁶⁰²

Furthermore, there currently appears to be a level of consensus that the audit and certification procedures for ship recycling facilities will be established to complement the transposing regulation, along with the obligation for ships under flags or authority of European Union member states to use only these certified facilities. Additionally, a ship dismantling fund is considered an important step in order to close the financial gap between ‘sub-standard’ and ‘green’ ship recycling.

⁵⁹⁹ European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 4.

⁶⁰⁰ Article 1.2 HKC: “No provision of this Convention shall be interpreted as preventing a Party from taking, individually or jointly, more stringent measures consistent with international law, with respect to the safe and environmentally sound recycling of ships, in order to prevent, reduce or minimize any adverse effects on human health and the environment”.

⁶⁰¹ Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 32: “Some stakeholders have stressed that the EU should not impose additional requirements which could upset the delicate balance reached by the IMO between improving environmental and health and safety standards with the need to ensure adequate recycling capacity”; for further information on this dilemma in general, see, e.g., Gaskell, ‘Decision Making and the Legal Committee of the International Maritime Organization’, 18 Int’l J. Marine & Coastal L. 155 (2003), at 161; Graf Vitzthum, ‘Schiffssicherheit: Die EG als potentieller Durchsetzungsdegen der IMO’, 62 ZsöRV 163 (2002), at 172.

⁶⁰² Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 32.

Taken together, a mix of measures initiated by the European Union promises to be particularly useful.⁶⁰³ An extensive OECD study in 2007 on general environmental policy agreed, summarising the arguments in favour of implementing a mix of instruments:

First and foremost, many environmental problems are of a ‘multiaspect’ nature – in addition to the total amounts of releases of a certain pollutant, it can, for example, also matter where emissions take place, when they occur, how a polluting product is applied, etc. Secondly, certain instruments can mutually underpin each other [...] Often, a mix of instruments is required in order to address non-environmental “failures” in the markets in which environmental policy instruments operate [...] Sometimes such mixes can also limit compliance-cost uncertainty, enhance enforcement possibilities and reduce administrative costs.⁶⁰⁴

Therefore, the following suggestions for measures complementing direct ship recycling initiatives by and within the European Union include a variety of means and instruments that facilitate the implementation of a transposing regulation. These measures include a scheme for the audit and certification of ship recycling facilities, an obligation for ships flying the flags of European Union member states to only use certified facilities, and a ship dismantling fund. Moreover, complementary indirect approaches will first of all concentrate on instances of re-flagging and selling ships prior to recycling before finally highlighting a number of non-binding initiatives.

1. Audit and Certification of Ship Recycling Facilities

A *Study on the Certification of Ship Recycling Facilities* conducted for the European Maritime Safety Agency (EMSA) developed a model of an integrated management system (IMS) specifically for ship recycling facilities within and outside the European Union.⁶⁰⁵ This system was considered an instrument “to promote and strengthen implementation”⁶⁰⁶ of the Hong Kong Convention once it was adopted and to “ensure [...] a more level playing field worldwide”.^{607,608} At the same time, it was explicitly noted that certification under this system would “only require

⁶⁰³ European Commission, ‘Summary Impact Assessment for an EU strategy for better ship dismantling’, EU-doc. SEC(2008) 2847, at 10; see the opinion of the European Economic and Social Committee on the European Commission’s ‘An EU strategy for better ship dismantling’, EU-doc. C 277/67, para. 3.3.

⁶⁰⁴ OECD, *Instrument Mixes for Environmental Policy – Executive Summary* (2007), at 1.

⁶⁰⁵ EMSA, *Study on the Certification of Ship Recycling Facilities* (2008).

⁶⁰⁶ *Ibidem*, at 3.

⁶⁰⁷ European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 5.5.

⁶⁰⁸ In this context, see Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 33: “Already today, certifications by the international and voluntary ISO and OHSAS standards are popular in ship recycling and a number of facilities in Europe, China, Turkey and India all boast ISO 14001 or OHSAS 18001 certificates although differing significantly in their approach to safety, health and environmental issues. On that account, the shipowner organisations and a number of flag states have maintained that the market

marginal additional effort for a facility already pursuing appropriate authorisation under IMO and/or certification from ISO 30000”.⁶⁰⁹ Accordingly, the adoption of the IMS as proposed in the study strives to achieve a balance between EU efforts regarding the adoption of slightly stringent measures on the one hand, and the economic anxieties of shipowners.

More precisely, the study suggested that the European IMS should include the following main elements: procedural compliance with ISO 30000 or the relevant IMO Guideline,⁶¹⁰ explicit inclusion of a number of international conventions and regulations as the regulatory base of the IMS, measurement, documentation and publication of health, safety and environmental (HSE) performance⁶¹¹ against a minimum benchmark, and the required performance of a risk assessment for each ship prior to recycling.⁶¹²

The level of compliance with these elements would subsequently be evaluated as either compliant with the requirements resulting in a rating from ‘AAA’ to ‘A’, or as non-compliant.⁶¹³ The reasons for having more than one level of compliance is justified as follows:

It is believed to be of value in particular to the better qualified entrants that more than one level exists and also for the end users, i.e. the ship owners, it may be important to be able to differentiate the yards and still maintain a large pool of compliant facilities.⁶¹⁴

Of particular importance in the EU context, the ship recycling procedure known as ‘beaching’ could either be qualified as non-compliant⁶¹⁵ or as roughly equivalent to

for safe and environmentally sound ship recycling lacks transparency with respect to standards and applicable rules”.

⁶⁰⁹ EMSA, Study on the Certification of Ship Recycling Facilities (2008), at 4; for further information on the ISO 30000 standard, see *supra* chapter “European Ship Recycling Regulation”, A.III.4 (pp. 152 et seq.).

⁶¹⁰ IMO guidelines for the authorization of Ship Recycling Facilities; see Conference Resolution 4: ‘Future Work by the Organization Pertaining to the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009’, IMO-doc. SR/CONF/46, at 10.

⁶¹¹ For a description of the ten IMS indicators for health, safety and environmental performance at ship recycling facilities, see EMSA, Study on the Certification of Ship Recycling Facilities (2008), at 6.

⁶¹² *Ibidem*, at 4–5.

⁶¹³ ‘AAA’ referring to high safety levels and extensive use of state-of-the-art disposal and elimination, i.e. typically a dry dock facility; ‘AA’ meaning a high safety level and proper disposal and incineration facilities with the ship’s hull being used as containment and a double containment for breaking the keel which may include pier breaking, slipways and redesigned beaching and landing; ‘A’ referring to adequate levels of worker’s safety, no incineration of hazardous waste, secondary bunds and containment in a not impermeable primary cutting zone for keel which might include improved beaching and landing facilities; non-compliant facilities lack disposal facilities and/or environmental management or proper safety equipment; see the table presented by EMSA, Study on the Certification of Ship Recycling Facilities (2008), at 5.

⁶¹⁴ *Ibidem*, at 64.

⁶¹⁵ In a non-legislative resolution, the European Parliament called for “an explicit prohibition on ‘beaching’ of end-of-life ships” which it considered a “grossly unsustainable and seriously flawed

an ‘A’-rating.⁶¹⁶ As indicated above,⁶¹⁷ the adoption of an ‘A’-rating would provide a more consistent approach that allowed these critical procedures to also be regulated.⁶¹⁸

Altogether, the audit and certification scheme as suggested by EMSA is not considered to be a mere repetition of the IMO guidelines or the relevant ISO 30000 standards⁶¹⁹; the European IMS is even more comprehensive, insofar as it takes these existing standards as a basement framework with the additional requirement of monitoring of a list of performance indicators.⁶²⁰

The question however arises whether this development is actually necessary.⁶²¹ The ISO 30000 series has established a comprehensive standard that includes a number of complementary guidelines and supporting information explicitly addressing ship recycling. Additionally, the ship-recycling related guidelines currently being developed by IMO with the participation of various stakeholders (including environmental non-governmental organisations) are broader and more up-to-date. As some key recycling states appeared very determined not to accept such an audit and certification scheme during the Hong Kong Convention deliberations,⁶²² support for the IMS as suggested seems improbable.⁶²³ This

breaking method”; European Parliament, ‘Resolution on an EU strategy for better ship dismantling’, EU-doc. RSP/2009/2571.

⁶¹⁶ In this regard, see European Commission, ‘Impact Assessment for an EU strategy on better ship dismantling’, EU-doc. SEC(2008) 2846, at 21–22.

⁶¹⁷ See *supra* chapter “Entry-Into-Force Provision”, note 302 and accompanying text (p. 96).

⁶¹⁸ A compromise in this regard could, e.g., stipulate that minimum recycling standards be raised according to a specified time schedule, with beaching (initially equivalent to a minimum ‘A’ level) being admissible until 2020 or 2025; see COWI, ‘Study supporting the impact assessment of a new legislative proposal’ (2009), at 8.

⁶¹⁹ Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 33.

⁶²⁰ With regard to HSE issues, these performance indicators include: Frequent causes of accidents, hazardous substances and wastes, physical hazards, mechanical hazards, biological hazards, ergonomic and psychosocial hazards, general concerns including training, work organisation, housing and sanitation, accident prevention and emergency, first aid, rescue and medical facilities as well as procedures for handling and disposal of hazardous substances; see EMSA, *Study on the Certification of Ship Recycling Facilities* (2008), at 71.

⁶²¹ According to Ormond, ‘Enforcing EU environmental law outside Europe?’, *ELNI Review* 13 (1/2009), at 21, this idea has also been rejected by the majority of shipping states within the EU.

⁶²² See European Commission, ‘Report on the public consultation on new initiative regarding dismantling of ships’ (2009), at 3; Matz-Lück, ‘Safe and Sound Scrapping of “Rusty Buckets”? The 2009 Hong Kong Ship Recycling Convention’, 19 *RECIEL* 95 (2010), at 101; this may also be the reason why the Hong Kong Convention requires that the authorisation of the ship recycling facility be conducted by individual governments, i.e. domestic, ‘competent authorities’.

⁶²³ Nevertheless, it is not up to the major South Asian recycling states to ‘support’ or ‘approve of’ a European Union audit and certification scheme. Still, establishing this kind of scheme merely for the sake of establishing something particularly European may not be unusual in the EU context, but it would even more raise questions of legitimacy and efficiency.

further highlights concerns that the theoretical value to be derived from a new scheme largely based upon the existing framework may not be worth the actual cost.⁶²⁴

While “guarantee[ing] full and acceptable coverage of HSE issues in the system”,⁶²⁵ the value of adding another instrument to the range of existing voluntary business-to-business systems may be more symbolic than substantial in nature.⁶²⁶ Even more so, if one looks at existing ‘facilities’ in key ship recycling states such as India, Bangladesh and Pakistan, it becomes more than apparent that a “full and acceptable coverage of HSE issues” is not a realistic objective in the short or medium term. Given the current time constraint for European Union measures,⁶²⁷ the need for regulatory efforts to be directed towards matters other than the establishment of an additional European audit and certification scheme of ship recycling facilities becomes even more clear.

Nevertheless, and in spite of current criticism, for the longer term, the establishment of a European Union scheme with a clear-cut differentiation between differently rated ship recycling facilities might provide some incentives for shipowners and ship recycling companies alike⁶²⁸ to encourage the development of individual ‘Corporate Social Responsibility’ policies.⁶²⁹

⁶²⁴ Typically, the major share of auditing organisations’ budgets is paid by their customers, i.e. – in the present context – the ship recycling facilities, which will pass a considerable part of these costs to the shipowners; see Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 34; as the IMS will not substitute the existing ISO 30000 standard but will be complementary, the overall costs will simply increase; accordingly, to declare certification costs “in line with the polluter pays-principle”, as stated by EMSA, Study on the Certification of Ship Recycling Facilities (2008), at 105, may be correct as regards the internalisation of externalities in general, but the same would apply to every other additional certification scheme as well.

⁶²⁵ EMSA, Study on the Certification of Ship Recycling Facilities (2008), at 71.

⁶²⁶ HSE issues typically are vastly governed by European Union legislation; for further information, see, e.g., Directive 1999/92/EC (ATEX) stipulating minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres or Council Directive 96/82/EC (*Seveso II*) on the control of major-accident hazards involving dangerous substances.

⁶²⁷ See European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 5.5.

⁶²⁸ See European Commission, ‘Impact Assessment for an EU strategy on better ship dismantling’, EU-doc. SEC(2008) 2846, at 35, 38.

⁶²⁹ For CSR efforts in the field of ship recycling, see, e.g., the article by Maersk, ‘Maersk wants to end “beachings”’, <<http://www.maersk.com/AboutMaersk/News/Pages/20100701-145601.aspx>> accessed 31 January 2012; see also the opinion of the European Economic and Social Committee on the European Commission’s ‘An EU strategy for better ship dismantling’, EU-doc. C 277/67, paras. 1.9 and 5.3.2; with a view to a future CSR framework, see Ebbesson, ‘Transboundary corporate responsibility in environmental matters: fragments and foundations for a future framework’, in Winter (ed.), *Multilevel Governance of Global Environmental Change* (2006), 200, at 218–224.

2. Obligation for EU-Flagged Ships to Use Certified Facilities

Obviously, the objective “to ensure that ships with a strong link to the EU are dismantled only in safe and environmentally sound facilities worldwide”⁶³⁰ cannot be realised by only regulating ship recycling facilities, irrespective of whether this is achieved by an EU audit and certification scheme or by reliance on existing standards such as the ISO 30000 series and/or IMO guidelines. Quite clearly, the European Union has to introduce an obligation for ships under the flags of EU member states that only allows them to resort to certified ship recycling facilities.⁶³¹

However, such a regulatory measure would result in a considerable distortion of the shipping market by imposing an additional economic burden on European shipowners.⁶³² It would also quite probably lead to a number of ships currently under the flags of EU member states being re-flagged to non-European flags.⁶³³ This, however, might be an acceptable trade-off regarding the main aim of EU measures. When the overall volume of merchant tonnage under flags of European Union member states is considered, even the loss of a small fraction of ships to non-European flags would still leave a considerable number of ships to which the EU measures would apply—at least as long as these are not sold on the ‘second hand’ market.

Possibly the most realistic chance of reducing the risk that shipowners make use of regulatory loopholes such as re-flagging would require economic incentives for shipowners, which could, e.g., be derived from a ship dismantling fund.

3. Ship Dismantling Fund

Currently, safe and environmentally sound ship recycling procedures generally incur substantially higher costs.⁶³⁴ For this reason, the proposed ship dismantling fund should bridge the gap between recycling prices offered by traditional ‘sub-standard’ ship recycling facilities, and the prices of environmentally sound ship recycling facilities.⁶³⁵ Such a funding mechanism could “potentially play a vital

⁶³⁰ European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 4.

⁶³¹ Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 44.

⁶³² Ibidem, at 34.

⁶³³ Ibidem, at 23, 34.

⁶³⁴ Milieu/COWI, ‘Note on the ship dismantling fund’ (2009), para. 1.2; Harjono, ‘Environmental Perspective’, Ship Recycling Conference 2005; for further details on the cost discrepancy between waste disposal in, e.g., Africa and in industrialised nations, see Kummer, *International Management of Hazardous Wastes* (1995), at 6.

⁶³⁵ Milieu/COWI, ‘Note on the ship dismantling fund’ (2009), para. 1.3; for further information, see Romanin Jacur, ‘Controlling and Assisting Compliance: Financial Aspects’, in Treves et al. (eds.), *Non-Compliance Procedures and Mechanisms and the Effectiveness of International Environmental Agreements* (2009), pp. 419–437.

role in providing proper incentive for the stakeholders”.⁶³⁶ Additionally, this approach would also reflect a contemporary understanding of the Polluter Pays Principle because it would hold a group of actors responsible, essentially due to their abstract proximity to occurrences of environmental pollution.⁶³⁷

a) Suggested Funding Mechanism

A study prepared by *Milieu/COWI* for DG Environment of the European Commission concluded that the most feasible option was to establish a funding mechanism.⁶³⁸ According to this study, it was proposed that the mechanism be based on recurrent charges for ships calling at European Union ports,⁶³⁹ and provide compensation for European shipowners upon provision of proof of recycling conducted by a certified ship recycling facility.⁶⁴⁰

b) Remaining Issues

While aiming at addressing and answering the related questions, the study still leaves a few issues unresolved.

aa) *Source of Funding*

The study clearly states that European Union waste policy is based on the ‘Polluter Pays Principle’.⁶⁴¹ Accordingly, it seems to be both reasonable and appropriate to

⁶³⁶ Milieu/COWI, ‘Note on the ship dismantling fund’ (2009), para. 1.3; see also European Commission, ‘Impact Assessment for an EU strategy on better ship dismantling’, EU-doc. SEC (2008) 2846, at 22.

⁶³⁷ Calliess, in Calliess/Ruffert, EUV/AEUV⁴ (2011), Article 191 AEUV para. 36; see also Krämer, ‘Die Integration umweltpolitischer Erfordernisse in die gemeinschaftliche Wettbewerbspolitik’, in Rengeling (ed.), Umweltschutz und andere Politiken der Europäischen Gemeinschaft (1993), 47, at 76–77 and 82.

⁶³⁸ A different suggestion called for a funding scheme along the lines of the car scrapping scheme introduced by some EU member states during the economic crisis in 2008/2009, but was however blocked due to alleged violations of state aid provisions; see Stares, ‘Ship scrap scheme would be illegal in EU’, Lloyd’s List, 29 June 2010, at 2; for earlier notes in this respect, see Stares, ‘Brussels considers ship scrap scheme to ease fleet’, Lloyd’s List, 7 July 2009, at 5; Stares, ‘Owners voice doubts over Brussels’ scrapping plan’, Lloyd’s List, 10 July 2009, at 2; Stares, ‘Brussels “has no plans” for ship scrapping subsidies’, Lloyd’s List, 22 July 2009, at 1; Stares, ‘EU yards’ subsidy plea wins support in Brussels’, Lloyd’s List, 15 September 2009, at 1.

⁶³⁹ For an assessment of the negative implications for EU shipowners, see Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 23.

⁶⁴⁰ Milieu/COWI, ‘Note on the ship dismantling fund’ (2009), para. 3.6.

⁶⁴¹ Ibidem, para. 1.4; see also the ‘user charge’ proposed by the German Advisory Council on Global Change, Charging the Use of Global Commons (2002), at 25.

only source the relevant funding from shipowners. This proposed solution however does not take into account the fact that European Union measures are also expected to be 'in line' with the Hong Kong Convention,⁶⁴² which would require a 'cradle-to-grave' approach as established by the Hong Kong Convention.⁶⁴³ Directing financial obligations only at shipowners and not at other important stakeholders such as ship-builders does not reflect this approach, and is thus not 'in line' with the Hong Kong Convention,⁶⁴⁴ therefore failing to facilitate the complete internalisation of externalities.

bb) Disbursement of Compensation

The disbursement process also leaves some concerns unresolved.

(1) General Discrepancy The first concern touches upon the discrepancy between those entities financing the fund and those eligible for disbursement.

According to the proposal, every ship calling at a European port would be obliged to pay the recurrent charge, whereas only ships under flags of member states of the European Union might be awarded compensation for choosing a 'green' ship recycling facility. While this may provide an incentive for shipowners to register their merchant fleet under the flags of these states,⁶⁴⁵ this discrepancy sends out the wrong signal: If ships of foreign flags were also eligible, it would not only be proof of the progressive nature of the measure, but also alleviate the principal disadvantage of European regulatory measures, i.e. their regional distinction. This wrong signal is not mitigated by the fact that the objective of the European Union strategy is predominantly focussed on the appropriate recycling of vessels with a strong link to the European Union. A mechanism that also ensured the appropriate recycling of foreign ships would not weaken this objective in any way.⁶⁴⁶ Furthermore, recent scholarly recommendations emphasised the importance of incentives particularly with regard to ships flying flags of convenience.⁶⁴⁷

⁶⁴² European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 4.

⁶⁴³ Consequently, this would result in also addressing the ship-building companies, thus additionally emphasising the 'producer responsibility principle' as suggested by the European Parliament, 'Resolution on an EU strategy for better ship dismantling', EU-doc. RSP/2009/2571; see also Harjono, 'Environmental Perspective', Ship Recycling Conference 2005.

⁶⁴⁴ See the opinion of the European Economic and Social Committee on the European Commission's 'An EU strategy for better ship dismantling', EU-doc. C 277/67, paras. 4.10 and 5.6.2.

⁶⁴⁵ Milieu/COWI, 'Note on the ship dismantling fund' (2009), para. 3.3; it might, however, also induce these shipowners to "behave ex ante as if they are insured against the [additional] costs" incurred through green ship recycling; for further references, see Wiener, 'Global Environmental Regulation: Instrument Choice in Legal Context', 108 Yale L. J. 677 (1999), at 726–727.

⁶⁴⁶ For obvious reasons, such an implementation would however necessarily involve higher financial means.

⁶⁴⁷ DeSombre, 'Globalization, Competition, and Convergence: Shipping and the Race to the Middle', 14 Global Gov. 179 (2008), at 195: "Most frequently, [...] international pressure has

It is not only the symbolism that is a concern in this instance; additionally, it gives rise to a few legal questions. The legal relevance of this discrepancy in compensation as regards both European Union legislation as well as WTO law is addressed in the following paragraphs.

(2) An EU Perspective According to information received from DG MOVE of the European Commission with a view to the ship dismantling fund, there are “clearly no EC State aid rules that allow State aid to be granted for ship dismantling of commercial vessels”.⁶⁴⁸

In this context, Article 107.1 TFEU (ex-Art. 87 EC) prohibits aid granted by a member state or through state resources that results in an economic advantage for a private beneficiary, provided that competition is distorted and trade between member states adversely affected.⁶⁴⁹ For Article 107.1 TFEU to apply, every single requirement must be met.⁶⁵⁰ While the fact that the proposed ship dismantling fund would be financed by recurrent charges paid by private ship-owning companies does not *eo ipso* prevent application,⁶⁵¹ the fact that the ship dismantling fund, as suggested, would be established pursuant to European Union legislation clearly does. This is due to the consideration that Article 107.1 TFEU requires that the aid be imputed to a member state. If however a state measure is based on European Union law which has been implemented in national law, then Article 107.1 TFEU does not apply, “since the measure cannot be considered a measure of the Member State”.⁶⁵² Measures initiated by the European Commission and funded by means

led to increased standards when actors have been able to create some way to deny access to a benefit to those who do not accept the standards in question. [...] Because there may still be advantages to continuing to fly a flag of convenience, ships that do so may want to reform their behavior sufficiently that they will not have to abandon those flags. [...] A combination of international pressure and individual incentives may therefore be what is needed to hold ships to international standards”.

⁶⁴⁸ Email from Jean-Louis Colson, Head of the Maritime Transport Policy Unit of DG MOVE of the European Commission, 16 July 2010; for a statement in a similar context, see Stares, ‘Future of EU innovation aid to shipyards in question’, *Lloyd’s List*, 11 October 2010, at 1.

⁶⁴⁹ For further information in this respect, see, e.g., Quigley, *European State Aid Law and Policy*² (2009), at 32–60; Schweda, ‘§ 14 General Principles’, in Heidenhain (ed.), *European State Aid Law* (2010).

⁶⁵⁰ ECJ, Case C-142/87, *Kingdom of Belgium v Commission* (‘*Tubemeuse*’) [21 March 1990], para. 25; ECJ, Joined Cases C-278/92 to C-280/92, *Spain v Commission* [14 September 1994], para. 20; ECJ, Case C-482/99, *France v Commission* [16 May 2002], para. 68; ECJ, Case C-280/00, *Altmark Trans and Regierungspräsidium Magdeburg* [24 July 2003], para. 74; ECJ, Case C-237/04, *Enirisorse* [23 March 2006], para. 38.

⁶⁵¹ ECJ, Case C-72/92, *Scharbatke* [27 October 1993], para. 10; CFI, Case T-358/94, *Air France* [12 December 1996], paras. 55–59; ECJ, Case C-384/07, *Wienstrom* [18 December 2008], para. 20; see the corresponding decision NN 162/B/2003 by the European Commission of 4 July 2006, EU-doc. C(2006) 2964; see also Haratsch/Koenig/Pechstein, *Europarecht*⁷ (2010), para. 1148.

⁶⁵² Heidenhain, ‘§ 4 The Concept of State Aid’, in *ibidem* (ed.), *European State Aid Law* (2010), para. 35; CFI, Case T-351/02, *Deutsche Bahn v Commission* [5 April 2006], paras. 99–102.

other than member states' contributions⁶⁵³ are not subject to the requirements as stipulated by Article 107.1 TFEU.⁶⁵⁴

Notwithstanding this restriction in direct applicability, rules such as the 'Community guidelines on State aid' are yet of indirect relevance as they are *de facto* binding for the European Commission for both the initiation of legislation, and for the allocation of European Union aid.⁶⁵⁵ One of the principal reasons for their importance relates to them substantiating what the European Commission considers its 'principes de bonne administration'.⁶⁵⁶ Central to these types of guidelines is the attempt to facilitate an institutional balance between overall policy objectives such as environmental protection on the one side, and the protection of competition and trade between member states on the other.⁶⁵⁷ The 'Community guidelines on State aid for environmental protection'⁶⁵⁸ are particularly relevant in the context of a future ship dismantling fund. These guidelines principally aim at ensuring that individual measures

⁶⁵³ See Cichy, Wettbewerbsverfälschungen durch Gemeinschaftsbeihilfen (2002), at 155.

⁶⁵⁴ Ehricke, in Immenga/Mestmäcker (eds.), Wettbewerbsrecht EG/I⁴ (2007), Art. 87.1 EGV para. 32; Koenig/Kühling, in Streinz (ed.), EUV/EGV (2003), Art. 87 EGV para. 16; Cichy, Wettbewerbsverfälschungen durch Gemeinschaftsbeihilfen (2002), at 157; Müller-Graff, 'Die Erscheinungsformen der Leistungssubventionstatbestände aus wirtschaftlicher Sicht', 152 ZHR 403 (1988), at 410; cf. Caspari, 'Die Beihilferegeln des EWG-Vertrags und ihre Anwendung', in FS von der Groeben (1987), 69, at 79: "Nicht unter den Begriff 'staatliche Beihilfe' fallen dagegen Finanzhilfen, die von Gemeinschaftsinstitutionen gewährt werden. Bei ihnen handelt es sich eben nicht um (national-)staatliche Hilfen."; Mederer/Triantafyllou, in von der Groeben/Schwarze (eds.), EU-/EG-Vertrag⁶ (2003), Art. 87 EG para. 29; Schwintowski, 'Staatlich veranlaßte Wettbewerbsbeschränkungen auf europäischen und internationalen Märkten', 58 RabelsZ 232 (1994), at 245; cf. Calliess, in Calliess/Ruffert, EUV/AEUV⁴ (2011), Article 191 AEUV para. 37.

⁶⁵⁵ Bär-Bouyssière, in Schwarze, EU, Art. 87 EGV para. 6; Caspari, 'Die Beihilferegeln des EWG-Vertrags und ihre Anwendung', in FS von der Groeben (1987), 69, at 79–80: "Beihilfegewährende Gemeinschaftsinstitutionen müssen sich aber – und es ist die Aufgabe der Kommission, dafür zu sorgen – von den gleichen Kriterien leiten lassen, die in vergleichbaren Fällen die Kommission gegenüber Vorhaben der Mitgliedstaaten anwendet."; Mederer/Triantafyllou, in von der Groeben/Schwarze (eds.), EU-/EG-Vertrag⁶ (2003), Art. 87 EG para. 29; Mestmäcker/Schweitzer, Europäisches Wettbewerbsrecht² (2004), § 46 para. 7; Schröter, in von der Groeben/Schwarze (eds.), EU-/EG-Vertrag⁶ (2003), Vorbem. Art. 81–85 EG para. 37; Meßerschmidt, Europäisches Umweltrecht (2011), § 5 para. 140; in this context, see also Article 12 of Council Regulation (EC) No 1260/1999 of 21 June 1999 laying down general provisions on the Structural Funds.

⁶⁵⁶ Ehricke, in Immenga/Mestmäcker (eds.), Wettbewerbsrecht EG/I⁴ (2007), Art. 87.1 EGV para. 11.

⁶⁵⁷ See, e.g., Mestmäcker/Schweitzer, Europäisches Wettbewerbsrecht² (2004), § 46 para. 7.

⁶⁵⁸ European Commission, 'Community guidelines on State aid for environmental protection', OJ C 82, 1 April 2008, pp. 1–33; see also Articles 17–25 of Regulation (EC) No 800/2008 'declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty', OJ L 214, 9 August 2008, pp. 3–47.

will result in a higher level of environmental protection than would occur without the aid and that the positive effects of the aid outweigh its negative effects in terms of distortions of competition, taking account of the polluter pays principle.⁶⁵⁹

Assessing whether an aid measure is compatible with the common market has been formalised in what has been labelled a three-fold ‘balancing test’: Firstly, the objective of the aid measure is analysed as to whether it constitutes a well-defined objective of common interest. Secondly, it is assessed whether the measure is well-designed with a view to its objective. Thirdly, the extent of potential limitations to trade or distortions of competition are examined.⁶⁶⁰

The ship dismantling fund, as suggested, aims at bridging the price gap between ‘traditional’ and ‘green’ ship recycling procedures. It therefore provides a market-based instrument to promote environmental protection. As this is one of the fundamental overall objectives in the TFEU,⁶⁶¹ it qualifies as a ‘well-defined objective of common interest’.

The mere fact that market failures relating to negative externalities exist does not automatically justify aid measures.⁶⁶² Additionally, full application of the Polluter Pays Principle would result in the polluter bearing all pollution related costs, making further aid measures redundant.⁶⁶³ However, due to uncertainty in the precise calculation of the costs of ‘pollution’, the Polluter Pays Principle usually is implemented incompletely.⁶⁶⁴ Additionally, a moderate internalisation of negative externalities may be reasonable, so as not to overstrain market forces.⁶⁶⁵ Aid measures may complement and facilitate this process. This consideration applies *mutatis mutandis* to the ship dismantling fund as it would provide a voluntary incentive mechanism for shipowners to choose ‘green’ ship recycling facilities. Additionally, the higher level of internalised negative externalities for shipowners resulting from the entry-into-force of the Hong Kong Convention could be mitigated by the proposed ship dismantling fund to prevent an abrupt increase in prices. The aid measure is, in principle, also appropriate, as a change in shipowner behaviour to provide a higher level of environmental protection cannot be seriously expected without any financial assistance.⁶⁶⁶ This question of appropriateness

⁶⁵⁹ European Commission, ‘Community guidelines on State aid for environmental protection’, OJ C 82, 1 April 2008, para. 6.

⁶⁶⁰ *Ibidem*, para. 16.

⁶⁶¹ See, e.g., Article 11 TFEU: “Environmental protection requirements must be integrated into the definition and implementation of the Union policies and activities [...]”.

⁶⁶² European Commission, ‘Community guidelines on State aid for environmental protection’, OJ C 82, 1 April 2008, para. 23.

⁶⁶³ *Ibidem*, para. 24.

⁶⁶⁴ *Ibidem*, para. 25.

⁶⁶⁵ *Ibidem*, para. 25.

⁶⁶⁶ *Ibidem*, paras. 28–30; a problem could however result from the stipulation that state aid to meet mandatory European Union standards which are already in force cannot be justified. Therefore, a combination of an obligation for EU-flagged ships to only use certified ‘green’ facilities on the one hand, and the ship dismantling fund, as suggested, on the other hand would not be admissible. This

depends however on the—yet to be determined—financial mechanisms and the exact amounts to be disbursed.⁶⁶⁷ One further restriction is that the ship dismantling fund must only operate for an interim period, a stipulation endorsed by the Milieu/COWI study.⁶⁶⁸ For these reasons, the ship dismantling fund can also be—in principle—considered ‘well-designed’, as stipulated by the balancing test.

Finally, possible distortions of competition and effect on trade are limited, and the overall balance is positive. This is particularly true as there are no foreseeable distortions within the common European market, as every European shipowner would be formally entitled to claim compensation from the fund, and only non-Europeans will be excluded *ratione personae*. As the requirement to keep distortions of competition and effect on trade limited only refers to competition and trade within the European Union,⁶⁶⁹ the last requirement of the balancing test also is fulfilled.

This assessment, while contradicting the information obtained from DG MOVE of the European Commission, also is in line with the Sixth Community Environment Action Programme⁶⁷⁰ which identified waste management as one of its top four priorities.⁶⁷¹ Nevertheless, the funding mechanism as suggested must also comply with pertinent WTO rules.⁶⁷²

(3) A WTO Perspective The discrepancy between the source of funding and the disbursement process may have additional ramifications in the WTO context,⁶⁷³ particularly with regard to the discriminatory disbursement of compensation as suggested by the Milieu/COWI study.

problem could however be solved by exclusively funding ship recycling by ship recycling facilities with relatively higher standards than those at which the general obligation points at. The degree of selectivity also is another means of ensuring proportionality of the aid measure in question.

⁶⁶⁷ For further information on the calculation of the minimum aid needed to ensure an appropriate level of environmental protection, see European Commission, ‘Community guidelines on State aid for environmental protection’, OJ C 82, 1 April 2008, paras. 31–34.

⁶⁶⁸ Milieu/COWI, ‘Note on the ship dismantling fund’ (2009), para. 5.

⁶⁶⁹ See ECJ, Joined Cases C-64/96 and C-65/96, *Uecker und Jacquet* [5 June 1997], para. 21.

⁶⁷⁰ Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme, OJ L 242, 10 September 2002, p. 1.

⁶⁷¹ Article 2.2 of Decision No 1600/2002/EC.

⁶⁷² Koenig/Kühling, in Streinz (ed.), EUV/EGV (2003), Art. 87 EGV paras. 9 and 16.

⁶⁷³ In this context, see, e.g., Herdegen, ‘Informalisierung und Entparlamentarisierung politischer Entscheidungen als Gefährdungen der Verfassung’, 62 VVDStRL 7 (2003), at 24: “[D]as Vertragswerk der Welthandelsorganisation (WTO) [hat sich] zu einem recht engen Korsett für handelsbeschränkende Maßnahmen aller Art entwickelt”; see also Ishibashi, ‘Environmental Measures Restricting the Waste Trade’, in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), 59, at 68–74.

First and foremost, the European Union as well as its member states are WTO members.⁶⁷⁴ Therefore, WTO legislation binds EU bodies and EU member states alike.⁶⁷⁵ However, the disbursement procedure does not fall within the scope of application of the *Agreement on Subsidies and Countervailing Measures* (SCM Agreement)⁶⁷⁶ as this agreement requires the subsidisation of a product or good as contained in Article VI of the *General Agreement on Tariffs and Trade*⁶⁷⁷ (GATT 1994).^{678,679}

The disbursement method, however, aims to provide economic incentives for shipowners to choose ‘green’ ship recycling facilities, thereby subsidising services instead of trade.⁶⁸⁰ Subsidies for services are covered by the *General Agreement on Trade in Services* (GATS)⁶⁸¹ where Article XV “recognize[s] that, in certain circumstances, subsidies may have distortive effects on trade in services” and therefore invites members to “enter into negotiations with a view to developing the necessary multilateral disciplines to avoid such trade-distortive effects”. However, although the ‘Working Party on GATS Rules’ was established in 1995, it has not made significant progress with regard to subsidies in the GATS context so far.⁶⁸² There is still no agreed definition of ‘subsidy’, nor has the question been

⁶⁷⁴ Council Decision 94/800/EC of 22 December 1994 concerning the conclusion on behalf of the European Community, as regards matters within its competence, of the agreements reached in the Uruguay Round multilateral negotiations (1986–1994).

⁶⁷⁵ Article 216.2 TFEU; see also ECJ, Case 104/81, *Kupferberg* [26 October 1982], para. 12; however, cf. ECJ, Case C-149/96, *Portuguese Republic v Council of the European Union* [23 November 1999], para. 47: “It follows from all those considerations that, having regard to their nature and structure, the WTO agreements are not in principle among the rules in the light of which the Court is to review the legality of measures adopted by the Community institutions”.

⁶⁷⁶ Agreement on Subsidies and Countervailing Measures (adopted 15 April 1994).

⁶⁷⁷ General Agreement on Tariffs and Trade (15 April 1994).

⁶⁷⁸ See WTO Panel Report, Brazil – Desiccated Coconut, WTO-doc. WT/DS22, paras. 238–246; WTO Appellate Body Report, Brazil – Desiccated Coconut, WTO-doc. WT/DS22, p. 16–17.

⁶⁷⁹ See Adamantopoulos, ‘Agreement on Subsidies and Countervailing Measures (SCMA)’, in Wolfrum/Stoll/Koebele (eds.), *WTO – Trade Remedies* (2008), 423, para. 4; WTO Panel Report, Brazil – Aircraft, WTO-doc. WT/DS46, para. 7.26; WTO Panel Report, Canada – Aircraft, WTO-doc. WT/DS70, para. 9.119; the same result follows from the fact that the SCM Agreement is contained in Annex 1A to the GATT 1994 which contains a number of ‘goods agreements’; for further information on the relationship between GATT 1994 and the SCM Agreement, see, e.g., WTO Appellate Body Report, Brazil – Desiccated Coconut, WTO-doc. WT/DS22, p. 15; Nowak, ‘Subventionen’, in Hilf/Oeter (eds.), *WTO-Recht – Rechtsordnung des Welthandels*² (2010), § 13 para. 4.

⁶⁸⁰ Matz-Lück, ‘Safe and Sound Scrapping of “Rusty Buckets”? The 2009 Hong Kong Ship Recycling Convention’, 19 *RECIEL* 95 (2010), at 101.

⁶⁸¹ General Agreement on Trade in Services (15 April 1994).

⁶⁸² World Trade Organization, *WTO Analytical Index*² (2007), at 986; Poretti, ‘Article XV GATS – Subsidies’, in Wolfrum/Stoll/Feinäugle (eds.), *WTO – Trade in Services* (2008), 349, para. 2.

answered as to whether the concept as contained in the SCM Agreement “fits the services context”.⁶⁸³

Consensus on the regulation of this category of services subsidies requires “a delicate balance between legitimate policy objectives and distortion of international trade”,⁶⁸⁴ and needs a considerable amount of time to progress.⁶⁸⁵ Therefore, although subsidies in the services’ context may actually have distortive effects, they are not—*de lege lata*—prohibited or regulated by GATS.⁶⁸⁶ It should furthermore be noted that, in principle, neither individuals nor EU member states are entitled to base a claim on WTO provisions,⁶⁸⁷ therefore rendering the question regarding the validity of EU legislation with a view to WTO rules even more irrelevant.⁶⁸⁸

cc) Object of Subsidisation

Ultimately, the third question relates to the fact that shipowners are concerned about the availability of ‘green’ ship recycling capacity.⁶⁸⁹ Subsidising shipowners for contracting with certified, green ship recycling facilities in this context is somewhat inappropriate, as it would make more sense to attribute funds from the ship dismantling fund to ship recycling facilities in order to both raise the standard

⁶⁸³ Poretti, ‘Article XV GATS – Subsidies’, in Wolfrum/Stoll/Feinäugle (eds.), *WTO – Trade in Services* (2008), 349, para. 7.

⁶⁸⁴ *Ibidem*, paras. 11, 39.

⁶⁸⁵ The lack of political will is additionally illustrated by the limited number of member submissions answering a questionnaire prepared by the WTO Secretariat in 1997 following the information exchange request pursuant to the fifth sentence of Article XV.1 GATS: as of now, five submissions have been received: Norway (23 June 1997), WTO-doc. S/WPGR/W/16/Add.1; New Zealand (23 June 1997), WTO-doc. S/WPGR/W/16/Add.2; Hong Kong, China (23 July 1999), WTO-doc. S/WPGR/W/16/Add.3; Poland (20 September 2000), WTO-doc. S/WPGR/W/16/Add.4; Switzerland (22 December 2005), WTO-doc. S/WPGR/W/16/Add.5.

⁶⁸⁶ Michaelis, ‘Dienstleistungshandel (GATS)’, in Hilf/Oeter, *WTO-Recht – Rechtsordnung des Welthandels*² (2010), § 20 para. 107; irrespective of future deliberations in this regard, some authors nonetheless seem to favour a broad interpretation of “measures affecting trade in services” as stipulated by Article I.1 GATS in order to also have the most-favoured nation provision (Article II GATS) and the anti-discriminatory concept of the national treatment provision (Article XVII GATS) apply; see Poretti, ‘Article XV GATS – Subsidies’, in Wolfrum/Stoll/Feinäugle (eds.), *WTO – Trade in Services* (2008), 349, paras. 28–30, 34–35; the present attitude of states on the international stage as well as in the ‘Working Party on GATS Rules’, as mentioned above, opposes this understanding. While possibly providing an interesting field of further analysis, a discussion of questions such as the sectoral commitments of the EU member states in this regard goes beyond the scope of this thesis.

⁶⁸⁷ See ECJ, Case C-280/93, *Germany v Council* [5 October 1994], paras. 103–112; ECJ, Case C-149/96, *Portugal v Council* [23 November 1999], paras. 48–49.

⁶⁸⁸ For further references, see Meßerschmidt, *Europäisches Umweltrecht* (2011), § 4 para. 41.

⁶⁸⁹ See the opinion of the European Economic and Social Committee on the European Commission’s ‘An EU strategy for better ship dismantling’, EU-doc. C 277/67, para. 5.2.2.

of existing facilities⁶⁹⁰ and increase the overall ‘green’ capacity available.⁶⁹¹ This would enable them to better compete with ‘traditional’ facilities and would provide a much more sustainable solution.⁶⁹² This solution is even more appropriate given the time pressure regarding the establishment of a funding mechanism as it is supposed to cover the whole interim period until the entry-into-force of the Hong Kong Convention.⁶⁹³ Furthermore, should the entry into force requirements not be fulfilled, the steady building of capacity resulting from financial disbursements to ship recycling facilities might provide additional incentives for some states to ratify the Hong Kong Convention. The suggested method will not result in such an outcome.

Disbursement could also be linked to bilateral agreements between the European Union and individual states⁶⁹⁴; for example, the disbursement of funds from the ship dismantling fund to specific facilities in a ship recycling state could be made contingent upon early ratification of the Hong Kong Convention. This suggestion has however not been made so far.

c) Summary

According to the proposal, it is not unrealistic that the ship dismantling fund as suggested by the Milieu/COWI study is actually capable of bridging the price gap between ‘sub-standard’ and ‘green’ ship recycling. However, while raising a few questions regarding its political and symbolic implications, the disbursement process suggested does actually hold up to legal scrutiny. Of course, disbursement is ultimately also a financial decision, as an increase in numbers of potential applicants for compensation will be accompanied by an increase in compensation eventually disbursed.⁶⁹⁵ Ultimately, it is worth noting that the European

⁶⁹⁰ In this context, see EMSA, *Study on the Certification of Ship Recycling Facilities* (2008), at 65: “Globally, the facilities currently in non-compliance with the future Convention [i.e. the Hong Kong Convention] are by and large considered to be the beaching facilities operating in India, Pakistan and Bangladesh. It should not, however, be ignored that around the world a number of non-compliant yards amongst landing, slipway and pier breaking facilities will also be in need of costly and comprehensive upgrading”; see also Harjono, ‘Environmental Perspective’, *Ship Recycling Conference* 2005.

⁶⁹¹ It is correct that the existence of respective market demand is the biggest incentive to build ship recycling capacity; however, the market situation is currently affected by market failure, and a functioning ‘green’ ship recycling market does not yet exist. For this reason it is suggested to initially supply and build capacity in order to provide a solution to the fears of the demand side.

⁶⁹² The study by Milieu/COWI also addresses the possibility of subsidising environmentally sound recycling facilities within and outside the European Union, but comes, for rather incomprehensible reasons, to the conclusion that such a “disbursement mechanism is considered to be less relevant for the ship dismantling fund”; see Milieu/COWI, ‘Note on the ship dismantling fund’ (2009), para. 2.3.2; this conclusion however seems to be politically biased.

⁶⁹³ See Milieu/COWI, ‘Note on the ship dismantling fund’ (2009), para. 1.4.

⁶⁹⁴ See *infra* chapter “European Ship Recycling Regulation”, B.IV.5.b) (pp. 222 et seq.).

⁶⁹⁵ See Wiener, ‘Global Environmental Regulation: Instrument Choice in Legal Context’, 108 *Yale L. J.* 677 (1999), at 727: “International ‘carrots’ subsidizing global environmental protection

Commission's insistence on further reflection prior to a further detailed assessment⁶⁹⁶ seems to show a level of discontent with the proposal.

4. Indirect Regulation

In addition to early transposition and complementary steps, measures which facilitate and ensure the implementation of the primary objective of EU initiatives in a more indirect manner have to be taken into consideration.⁶⁹⁷ The overall objective remains the appropriate recycling of ships with a strong link to the EU. This does not mean regulating South Asian ship recycling facilities; on the contrary, indirect regulation as understood here aims at ensuring that acceptable ship recycling facilities are supplied with as many EU-linked ships as feasible.

As mentioned above, ships linked to the EU are currently either sold and/or re-flagged as a result of the provisions of the Basel Convention, related costs and legal uncertainty.⁶⁹⁸ There is no indication whatsoever that this practice will change after the future entry-into-force of the Hong Kong Convention or—more relevant in this context—after the enactment of relevant EU measures. In transposing and creating complementary measures, this practice must be addressed in order not to leave EU measures to the current fate of the Basel Convention. Therefore, the following sections address the problem of re-flagging of ships⁶⁹⁹ as well as the sale of ships prior to recycling.

a) Issues Under Scrutiny

aa) Re-Flagging of Ships Prior to Recycling

Whereas the need for a 'genuine link' to register a ship in a state other than that of the beneficial owner has practically ceased to exist,⁷⁰⁰ the ship must be registered in the shipping register of an individual state.⁷⁰¹ While in former times, the merchant fleet of a particular company had typically been registered in the shipping register

may likewise invite perverse behavior by sources and investors that increases global environmental harm".

⁶⁹⁶ Communication with Jean-Louis Colson, Head of the Maritime Transport Policy Unit of DG MOVE of the European Commission, 16 July 2010.

⁶⁹⁷ For a similarly indirect approach in a slightly different context, see Shaffer, 'The Power of EU Collective Action: The Impact of EU Data Privacy Regulation on US Business Practice', 5 Eur. L. J. 419 (1999), at 426–434.

⁶⁹⁸ See supra chapter "European Ship Recycling Regulation", B.II.1.b) (pp. 172 et seq.).

⁶⁹⁹ See European Commission, 'Report on the public consultation on new initiative regarding dismantling of ships' (2009), at 1: "The most significant negative consequence of early transposition [...] is that EU unilateral measures could lead to the reflagging of ships during their operational life to a flag of convenience, or the reflagging of ships nearing the end of their life to non-EU countries in order to avoid complying with regional measures".

⁷⁰⁰ See supra chapter "European Ship Recycling Regulation", A.I.2 (pp. 104 et seq.).

⁷⁰¹ See Article 91 UNCLOS.

of the same state,⁷⁰² this practice has changed over the last century.⁷⁰³ Concerted efforts “to combat and eliminate FOCs have failed, mainly for economic reasons” and are not considered promising at present.⁷⁰⁴ Incentives not to re-flag include harmonised safety standards and compliance with environmental and health standards,⁷⁰⁵ thus providing political and social, rather than economic arguments. Commercial sense however must consider that re-flagging enables a significant reduction in operating costs, i.e. particularly labour costs⁷⁰⁶ and taxes.⁷⁰⁷ Furthermore, the fact that re-flagging ships is both easy⁷⁰⁸ and cheap⁷⁰⁹ only adds to the convincing list of economic incentives.

Whilst being economically reasonable, there is, of course, another side of the coin: Unfortunately, it is not a coincidence that the “detention and casualty rate of the FOCs fleet has been and still is considerably higher than that of ships registered in States requiring closer links between ship and flag”.⁷¹⁰ Reasons include the lack of willingness and/or capacity of many open registry states to conduct proper

⁷⁰² For further references to similar practices in imperial Rome, see Ready, *Ship Registration*³ (1998), at 2–3.

⁷⁰³ According to Hill, this practice started on a large scale with US and Greek shipowners transferring their ships to open registries for tax reasons after World War II; the latter also sought to avoid inconvenient regulation; see Hill, *Maritime Law*⁴ (1995), at 19; Ready *inter alia* refers to the use of the Spanish flag by English merchants in order to avoid Spanish monopolist trade restrictions and the transfer of U.S.-flagged ships to the Panamanian flag in order to avoid liquor-related regulation during the ‘prohibition’ period; Ready, *Ship Registration*³ (1998), at 20–21.

⁷⁰⁴ König, ‘Flags of Convenience’, in Wolfrum (ed.), *M.P.E.P.I.L.* (November 2008, online), para. 24.

⁷⁰⁵ See Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 23.

⁷⁰⁶ See Hill, *Maritime Law*⁴ (1995), at 19: “The cost of crewing, always a major expense for owners, could cripple the financial capabilities of an average shipowner if he were forced, by the domestic law of his own country of residence, to crew his ship exclusively with seafarers of his own nationality”.

⁷⁰⁷ König, ‘Flags of Convenience’, in Wolfrum (ed.), *M.P.E.P.I.L.* (November 2008, online), para. 4; Matlin, ‘Re-evaluating the Status of Flags of Convenience Under International Law’, 23 *Vand. J. Transnat’l L.* 1017 (1991), at 1044–1045.

⁷⁰⁸ Open registries such as Liberia or Panama are well-known for their relatively relaxed criteria as regards the admission of ships to their registries; see Anderson, ‘The Nationality of Ships and Flags of Convenience: Economics, Politics, and Alternatives’, 21 *Tul. Mar. L. J.* 139 (1996), at 140; Hill, *Maritime Law*⁴ (1995), at 20.

⁷⁰⁹ Finn, ‘The Role of the Shipbroker’, *Ship Recycling Conference* 2005.

⁷¹⁰ König, ‘Flags of Convenience’, in Wolfrum (ed.), *M.P.E.P.I.L.* (November 2008, online), para. 2; König, *Durchsetzung internationaler Bestands- und Umweltschutzvorschriften auf Hoher See im Interesse der Staatengemeinschaft* (1990), at 78; Behnam, ‘Ending Flag State Control?’, in Kirchner (ed.), *International Marine Environmental Law* (2003), 123, at 127–129; for further information on environmental and other problems associated with open registries, see Anderson, ‘The Nationality of Ships and Flags of Convenience: Economics, Politics, and Alternatives’, 21 *Tul. Mar. L. J.* 139 (1996), at 160; Ready, *Ship Registration*³ (1998), at 22–29; still, nowadays it is acknowledged that the problem of ‘sub-standard’ shipping is not restricted to open registry states but that it has to be regarded in the wider context of non-compliant flag state control.

controls of ships flying their flags,⁷¹¹ and the numbers of ‘sub-standard’ ships registered in these states.⁷¹² As early as 1981, the UNCTAD Secretariat listed ten reasons why compliance with safety standards was likely to be less pronounced under open-registry flags than under flags of states genuinely linked to the ship in question, pointing out aspects such as the following:

- (1) Real owners are not readily identifiable (partly because of difficulties in identifying, partly because of lack of incentive to identify) and are therefore in a good position to take risks by comparison with owners in normal registries who are living under the eyes of a maritime administration;
[...]
- (3) Since the master and other key shipboard personnel are not nationals of the flag State, they have no need or incentive to visit the flag State and can avoid legal action;
[...]
- (8) Port State control is weaker because the port State can only report substandard vessels and practice to a flag State which has no real control over the owner; [...]⁷¹³

While some of these assessments may be incorrect today, others are still valid. It is true, however, that a number of open registries have started to exclude old ships and some have established inspection systems in order to ensure compliance with major maritime conventions such as MARPOL 73/78 and 1974 SOLAS.⁷¹⁴ Despite this, shipowners are presented with economic incentives to generally register their merchant fleet in FOC shipping registers, and are particularly compelled to do so for older ships prior to disposal.⁷¹⁵ Put into different words: Even if a European shipowner usually registers his ships in his domestic shipping register, there are strong commercial arguments to re-consider this decision prior to the ships’ final life cycle or ultimate voyage.⁷¹⁶

⁷¹¹ Delbrück/Dahm/Wolfrum, *Völkerrecht*², vol. I/2 (2002), at 361.

⁷¹² Obviously, these two elements have been facilitating one another in the past; however, with increasing emphasis being placed upon port state control, the major flags of convenience nowadays attempt to comply with international regulations particularly in the maritime safety context; see Ready, *Ship Registration*³ (1998), at 18; see also Behnam, ‘Ending Flag State Control?’, in Kirchner (ed.), *International Marine Environmental Law* (2003), 123, at 133: “To [...] pretend that flag-of-convenience States can abide by voluntary guidelines from intergovernmental international organizations or by self-imposed rules is tantamount to placing arsonists in charge of the fire brigade”.

⁷¹³ UNCTAD Secretariat, ‘Action on the Question of Open Registries’, UN-doc. TD/B/C.4/220, as cited by Ready, *Ship Registration*³ (1998), at 22–23.

⁷¹⁴ Ready, *Ship Registration*³ (1998), at 23–24.

⁷¹⁵ See Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 23: “The extent of reflagging of EU-owned vessels to evade a future EU legal recycling regime will depend primarily on the eventual loss in net revenue from scrapping the ships in environmentally sound dismantling facilities in accordance with the Convention requirements compared to traditional scrapping”.

⁷¹⁶ Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 23.

Table 1 Ratio between ownership and flag registration in 2010

Beneficial owner	Tonnage (GT)	% of World merchant fleet	Tonnage reg. (GT)	% of World merchant fleet
Japan	131,955,001	14.06	16,857,860	1.80
Greece	118,089,051	12.58	40,795,358	4.35
Germany	85,371,604	9.09	15,282,545	1.62
China	67,156,101	7.15	34,705,141	3.70
USA	42,982,683	4.58	11,941,087	1.27
Norway ^a	33,794,824	3.60	16,528,688	1.76
South Korea	29,547,097	3.15	12,512,549	1.33
Denmark ^b	26,435,410	2.82	11,719,106	1.25
Hong Kong	23,427,839	2.50	55,543,246	5.92
Chinese Taipei	20,917,259	2.23	2,869,019	0.31

^aFor the sake of clarity, ships registered with Norway (NIS) are included here

^bFor the sake of clarity, ships registered with Denmark (DIS) are included here

The preceding table (*see* Table 1)⁷¹⁷ illustrates this argument, providing the current ratio between beneficial ownership and flag registration in 2010. This demonstrates the overall discrepancy between these two instances, and may serve as an indication of economic tensions in this respect.

The most remarkable finding from this table confirms and empirically proves the wide discrepancy between beneficial ownership and ship registration. While the top ten states in terms of beneficial ownership amount to almost 62 % of the world merchant fleet, only about 23 % of the world merchant fleet is actually registered in these states. This means that virtually two out of three ships owned by shipowners with headquarters in the major shipping states such as Japan, Greece and Germany are registered in open registries.

For the sake of clarity and in order to conduct a direct comparison, the second table (*see* Table 2)⁷¹⁸ illustrates the same ratio of beneficial ownership and flag registration at the time of disposal in 2010:

The rationale behind the second table is effectively the same as the first, with the one peculiarity that the focus is shifted from the world's total merchant fleet to the share of the world's merchant fleet which was disposed of in 2010. Therefore, a *caveat*: Minor modifications in relative and absolute figures may result from seasonal and/or cyclical variations in conjunction with completely unrelated reasons; what is important in this context is the question whether this empirical spotlight on the 2010 situation shows general tendencies. The second table emphasises the increase in the discrepancy between beneficial ownership and flag registration at the time of disposal. While the general share of the world merchant fleet of roughly 60 % owned by the top ten states has changed only slightly,

⁷¹⁷Compiled on the basis of statistical data provided by Lloyd's Register Fairplay, World Fleet Statistics 2010 (2011).

⁷¹⁸Compiled on the basis of statistical data as provided by Lloyd's Register Fairplay, World Casualty Statistics 2010 (2011).

Table 2 Ratio between ownership and flag registration prior to ship disposal in 2010

Beneficial owner (disp.)	Tonnage (GT)	% of World merchant fleet	Tonnage reg. (GT)	% of World merchant fleet
Greece	3,273,927	17.53	209,381	1.12
Japan	1,338,836	7.17	46,405	0.25
China	1,081,166	5.79	452,500	2.42
Norway	1,178,000	6.31	480,874	2.58
UK	966,950	5.18	228,851	1.23
UAE	800,333	4.29	11,308	0.06
Hong Kong	755,683	4.05	n/a	n/a
USA	606,849	3.25	211,489	1.13
Panama	599,082	3.21	4,207,951	22.53
India	574,131	3.07	351,697	1.88

their respective share of registered ships has decreased dramatically. Were Panama not to have bucked the trend, with a slight increase in relative numbers,⁷¹⁹ the share in terms of flag registration would have dropped from about 23 % to approx. 10 %. Panama as the obvious exception only serves to prove the overall tendency of shipowners re-registering their ships in an FOC prior to disposal.⁷²⁰ Obviously, there is a considerable urge for EU shipowners to not only register their merchant ships with flags of convenience *viz* open registry states, but also to strive for the re-flagging of their ‘properly’ registered ships prior to recycling.

bb) Sale of Ships Prior to Recycling

The sale of ships prior to recycling is the next issue under scrutiny. As with the issue of re-flagging, statistical data will first of all help not only to get an idea of the problem but also expose the practical relevance of this issue. The following table (see Table 3)⁷²¹ therefore provides current data on the ratio between beneficial ownership in general and ownership at the time of disposal:

⁷¹⁹ According to data provided by Lloyd’s Register Fairplay, World Fleet Statistics 2010 (2011), 21 % (i.e. 201,264,453 GT) of the merchant fleets of the world (i.e. 957,982,304 GT) were registered with the flag register of Panama in 2010.

⁷²⁰ In 2010, particularly attractive flag states at the point of time of disposal were the following states, sorted in hierarchical order: Panama (4,207,951 GT), Liberia (1,988,020 GT), Comoros (1,761,968 GT), St. Kitt & Nevis (1,140,090 GT), Singapore (1,124,018 GT), Tuvalu (872,639 GT), Bahamas (537,547 GT), Norway (480,874 GT), Marshall Islands (469,818 GT), St. Vincent & The Grenadines (454,895 GT), and Malta (449,161 GT); see Lloyd’s Register Fairplay, World Casualty Statistics 2010 (2011).

⁷²¹ Compiled on the basis of statistical data as provided by Lloyd’s Register Fairplay, World Casualty Statistics 2010 (2011), and Lloyd’s Register Fairplay, World Fleet Statistics 2010 (2011).

Table 3 Ratio between ownership in general and ownership prior to ship disposal in 2010

Beneficial owner	Tonnage (GT)	% of World merchant fleet	Tonnage disp. (GT)	% of World merchant fleet
Japan	131,955,001	14.06	1,338,836	7.17
Greece	118,089,051	12.58	3,273,927	17.53
Germany	85,371,604	9.09	251,155	1.34
China	67,156,101	7.15	1,081,166	5.79
USA	42,982,683	4.58	606,849	3.25
UK	40,700,626	4.34	966,950	5.18
Norway	33,794,824	3.60	1,178,000	6.31
South Korea	29,547,097	3.15	127,763	0.68
Denmark	26,445,159	2.82	254,747	1.36
Hong Kong	23,427,839	2.50	755,683	4.05

According to this data, the following assessment can be made: The sale of ships prior to recycling is common in practice, but not the rule. Of those top ten states in terms of beneficial ownership, eight are still in the top ten list when it comes to the time of disposal.⁷²² For absolute and relative figures, only a few modifications can be assessed: For example, the relative size of the Japanese-owned merchant fleet is effectively divided in half while the merchant fleet owned by Greek companies has grown considerably in relative terms. While indicating a certain tendency of Greek shipowners to purchase older ships on the second-hand market, this however does not give any explanations as to why. The same tendency, i.e. an increase in relative terms, can be assessed with regard to the merchant fleet owned by Norwegian companies. The merchant fleet owned by German companies, however, vanishes almost completely. It is worth noting, though, that this assessment does not imply that the German-owned merchant fleet declines in absolute terms; it simply illustrates the fact that at the time of disposal, the relative share of the merchant fleet owned by German shipowners is much smaller than the respective relative share of the world's merchant fleet in total. This again implies that there is a certain tendency – contrary to the one observed with regard to Greek shipowners – for German shipowners to get rid of most of their ‘rusty buckets’.⁷²³ A similar finding can be seen with regard to the merchant fleet owned by South Korean companies, which decreases by more than 50 %.⁷²⁴

⁷²² A list of the top ten nationalities in terms of beneficial ownership at disposal in 2010 includes the following states in hierarchic order: Greece (3,273,927 GT), Japan (1,338,836 GT), Norway (1,178,000 GT), China (1,081,166 GT), United Kingdom (966,950 GT), Singapore (965,731 GT), United Arab Emirates (800,333 GT), Hong Kong (755,683 GT), United States of America (606,849 GT); and Panama (599,082 GT); see Lloyd's Register Fairplay, World Casualty Statistics 2010 (2011).

⁷²³ This term was introduced by Matz-Lück, ‘Safe and Sound Scrapping of “Rusty Buckets”? The 2009 Hong Kong Ship Recycling Convention’, 19 RECIEL 95–103 (2010).

⁷²⁴ A potentially surprising finding relates to the fact that Panama as one of the major flag states is obviously trying to strengthen its position also with regard to beneficial ownership prior to disposal.

cc) Interim Findings

In a nutshell, five findings result from this analysis: Firstly, re-flagging an individual ship is an easy and cheap undertaking; secondly, while a number of FOCs have improved in terms of compliance with certain standards and inspection systems, the overall “casualty and detention rate [...] still is considerably higher” compared to states genuinely linked to their ships; thirdly, the general discrepancy between beneficial ownership and flag registration shows an overall tendency of shipowners to register their fleet in FOCs; fourthly, when it comes to the disposal of ships, this discrepancy is even bigger indicating that there is an additional tendency to re-register ships prior to recycling; and fifthly, the sale of ships prior to recycling is indeed not uncommon, but this trend cannot be quantified exactly.

b) Indirect Regulatory Approaches

The following indirect regulatory approaches to re-flagging have been considered so far: Firstly, the regulation of the re-registration and re-flagging procedure. Secondly, a list of ships ready for recycling could raise ship-specific awareness and might facilitate appropriate action by courts as well as other local authorities. Thirdly, the sale of ships for recycling purposes could also be made subject to further requirements.

aa) Regulation of Re-Flagging of Ships

Article 92.1 UNCLOS stipulates that a “ship may not change its flag during a voyage or while in a port of call, save in the case of a real transfer of ownership or change of registry”.⁷²⁵ Therefore, the shipowner does not have complete discretion in changing the flag of an individual ship⁷²⁶: The ship either has to be in its home port, or port of destination, or a real transfer of ownership or change of registry is required.⁷²⁷

As the ship is, in principle, subject to the exclusive jurisdiction of its flag state, domestic legislation may go even further than the conditions as required by Article 92.1 UNCLOS.⁷²⁸ Until the late 1980s, it was quite common to require permission

⁷²⁵ See Article 4.5 of the United Nations Convention on Conditions for Registration of Ships (signed 7 February 1986, not entered into force).

⁷²⁶ Ormond, ‘Enforcing EU environmental law outside Europe?’, *ELNI Review* 13 (1/2009), at 15.

⁷²⁷ Caron, ‘Flags of Vessels’, in Bernhardt (ed.), *E.P.I.L. – Volume II* (1999), 405, at 406; for an overview on the widespread practice of bareboat chartering or ‘dual registration’ being an exception to this rule, see König, ‘Flag of Ships’, in Wolfrum (ed.), *M.P.E.P.I.L.* (April 2009, online), para. 22; see also Ready, *Ship Registration*³ (1998), at 39–48.

⁷²⁸ See König, ‘Flag of Ships’, in Wolfrum (ed.), *M.P.E.P.I.L.* (April 2009, online), para. 18; *ITLOS, M/V ‘Saiga’ (No. 2) Case*, Judgment of 1 July 1999 (Separate Opinion of Vice-President Wolfrum), 38 I.L.M. 1372 (1999), at 1375 para. 23.

from a domestic public authority prior to changing the flag of a ship.⁷²⁹ The considerable discretion states still have in this regard is considered by some authors as a serious threat to flag state compliance.⁷³⁰ This is why it is suggested to interpret the current, rather shallow, ‘genuine link’ requirement in terms of whether the flag state is lacking the capacity and/or determination to effectively take the responsibility for flag state duties.⁷³¹ In practice, this proposal however has not resulted in any changes whatsoever.

Nonetheless, in order to combat illegal, unreported and unregulated (IUU) fishing, a number of states have enacted legislation imposing additional obligations prior to changing the flag of a fishing ship to a foreign registry, such as requiring government permission.⁷³² To generally require permission or to establish regulatory impediments prior to a change of flag from a flag of an EU member state to an open registry could therefore provide a possible solution, allowing a public authority distinguish between legitimate entrepreneurial decisions and the circumvention of applicable regulations.⁷³³ However, the regulatory tendency in the longer term points more in the opposite direction because these procedures—except for the regulation of IUU fishing—have been liberalised in recent decades,⁷³⁴ leaving no scope for additional regulation in this respect.⁷³⁵

bb) List of Ships Ready for Recycling

Where regulation for re-flagging as such turns out to be practically infeasible, a list of European ships ready for recycling could provide a first step towards a regulatory

⁷²⁹ See Caron, ‘Flags of Vessels’, in Bernhardt (ed.), E.P.I.L. – Volume II (1999), 405, at 406; Ormond, ‘Enforcing EU environmental law outside Europe?’, ELNI Review 13 (1/2009), at 15.

⁷³⁰ Molenaar, ‘The Concept of “Real Interest” and Other Aspects of Co-operation through Regional Fisheries Management Mechanisms’, 15 Int’l J. Marine & Coastal L. 475 (2000), at 502.

⁷³¹ Ibidem, at 502–503; de la Fayette, ‘The Marine Environment Protection Committee: The Conjunction of the Law of the Sea and International Environmental Law’, 16 Int’l J. Marine & Coastal L. 155 (2001), at 215–216; in this respect, see also ITLOS, *M/V ‘Saiga’ (No. 2) Case*, Judgment of 1 July 1999, 38 I.L.M. 1323 (1999), at 1343 para. 83; for a different concept, see Articles 8–9 of the United Nations Convention on Conditions for Registration of Ships (not entered into force); see Wolfrum, ‘Reflagging and Escort Operation in the Persian Gulf: An International Law Perspective’, 29 Va. J. Int’l L. 387 (1989), at 392; Behnam, ‘Ending Flag State Control?’, in Kirchner (ed.), *International Marine Environmental Law* (2003), 123, at 129–132.

⁷³² See Ormond, ‘Enforcing EU environmental law outside Europe?’, ELNI Review 13 (1/2009), at 15; for a perspective emphasising the responsibility of flag states in this respect, see Yankov, ‘Reflagging of Fishing Vessels: Critical Assessment of its Impact on the Enforcement of Fishing Regulations and the Responses Thereto’, in Ehlers/Mann-Borgese/Wolfrum (eds.), *Marine Issues* (2002), at 195–202.

⁷³³ The difficulties of such a distinction with particular regard to European corporate law have been analysed by von Lackum, *Die Gesetzesumgehung im Europarecht* (2009).

⁷³⁴ See Ormond, ‘Enforcing EU environmental law outside Europe?’, ELNI Review 13 (1/2009), at 15 and note 17.

⁷³⁵ In this respect, see also *supra* chapter “Entry-Into-Force Provision”, note 88.

answer to the problems related to re-flagging. While the establishment and maintenance of such a list should not become an end in itself, it might serve as a basis for subsequent regulation and enforcement. Furthermore, such a list would result in increased transparency, which would facilitate a level playing field for EU shipowners, avoiding distortion of competition within the EU.⁷³⁶

In 2008, the European Parliament suggested the European Commission compile a list of ships likely to be recycled within a foreseeable period.⁷³⁷ The European Commission then conducted an impact assessment⁷³⁸ coming to the preliminary conclusion that both the technical and legal feasibility of such a list was uncertain,⁷³⁹ resulting in the launch of another study.⁷⁴⁰ Currently, a list of potential criteria⁷⁴¹ is being prepared, taking account of legal and technical issues regarding the accessibility and exchange of the relevant data.⁷⁴²

A public consultation held in 2009 in this context showed that the majority of stakeholders were rather hesitant regarding the establishment of such a list, for reasons including, *inter alia*, the difficulty of establishing decisive criteria.⁷⁴³ More precisely, it was contended, *inter alia*, that age of a ship alone did not, in principle, provide a valid criterion.⁷⁴⁴ Similarly, the number of previous detentions was not considered sufficient *eo ipso* as a change of ownership might result in an upgrade of

⁷³⁶ See Ardia, 'Does the Emperor Have No Clothes? Enforcement of International Laws Protecting the Marine Environment', 19 Mich. J. Int'l L. 497 (1998), at 517–522.

⁷³⁷ European Parliament, non-legislative resolution of 21 May 2008 on the 'Green Paper on better ship dismantling', EU-doc. T6-0222/2008.

⁷³⁸ European Commission, 'Impact Assessment for an EU strategy on better ship dismantling', EU-doc. SEC(2008) 2846.

⁷³⁹ *Ibidem*, at 49.

⁷⁴⁰ See Bio Intelligence Service, 'Preliminary analysis on the feasibility of a list likely to go for dismantling' (2009).

⁷⁴¹ Allegedly, these criteria encompass legal obligations such as the phasing-out of single-hull tankers and the accelerated phasing-in of double hulls, special risk factors such as previous accidents, age, condition, owner/flag, previous detentions, current market prices as regards freight rates, ships for recycling and scrap metal; see Bio Intelligence Service, 'Preliminary analysis on the feasibility of a list likely to go for dismantling' (2009), at 7–15; furthermore, the classification society engaged could also signal whether or not the particular ship is being surveyed by a high-performing organisation or by an organisation with a history of low performance which, in turn, could also indicate the condition of the ship; the supervision, ranking, and possibly the subsequent regulation of classification societies could accordingly provide additional valuable input; see European Commission, 'Third package of legislative measures on maritime safety in the European Union', EU-doc. COM(2005) 585, at 2, 5, 7.

⁷⁴² See Milieu/COWI, 'List of ships ready for recycling' (2009), at 4.

⁷⁴³ European Commission, 'Report on the public consultation on new initiative regarding dismantling of ships' (2009), at 3.

⁷⁴⁴ See Milieu/COWI, 'List of ships ready for recycling' (2009), at 8; however, with age typically resulting in increased repair costs and declining earning potential, a shipowner is of course highly influenced by the age of a particular ship in determining the time of her final voyage; Bio Intelligence Service, 'Preliminary analysis on the feasibility of a list likely to go for dismantling' (2009), at 8.

a ship's condition.⁷⁴⁵ Eventually, it became obvious that industry stakeholders were principally afraid of negative economic implications for ship market prices that may result from inclusion in such a list.⁷⁴⁶

Nevertheless, the European Commission consciously accepted these negative implications as, in their perspective, the European shipping industry has been circumventing the relevant EU legislation for the last decade. Put differently: The establishment of a list of ships ready for recycling is merely the logical consequence of the lack of significant improvement in the attitude of the European shipping industry towards the issue of ship recycling.⁷⁴⁷ Clean ship recycling, after all, is considered an issue which should be approached pursuant to the Polluter Pays Principle.⁷⁴⁸

However, while negative economic implications are accepted in principle, the European Commission still has to take the possibility of distorted competition resulting from the inclusion in such a list into account. It might also consider that the establishment of such a list leads to sales of ships to non-European companies at an even earlier stage, which could eventually weaken the EU position in maritime affairs due to a dramatically reduced EU shipping fleet. This development might have further implications than just weakening the influence of the EU voice in international fora such as the IMO, it might also dramatically impede the on-going process of harmonisation and streamlining of European Union member states' efforts within similar international bodies.⁷⁴⁹

cc) Regulation of the Sale of Ships for Recycling

To render these measures more efficient and to tackle the wide-spread problem of ships being sold prior to recycling, a number of conditions could be additionally imposed on the sale of listed ships.⁷⁵⁰ This would also put pressure on the beneficial

⁷⁴⁵ See Milieu/COWI, 'List of ships ready for recycling' (2009), at 8; while the number of previous detentions might still indicate a certain lack of maintenance, it could be reasonable in this context to apply the same method of assessing a particular ship's risk profile as the new inspection regime adopted by the Paris MoU at its 42nd Committee meeting; see Bio Intelligence Service, 'Preliminary analysis on the feasibility of a list likely to go for dismantling' (2009), at 11.

⁷⁴⁶ European Commission, 'Report on the public consultation on new initiative regarding dismantling of ships' (2009), at 3; see also Bio Intelligence Service, 'Preliminary analysis on the feasibility of a list likely to go for dismantling' (2009), at 24; Stares, 'Pre-waste ship list could distort charter rates', *Lloyd's List*, 2 November 2009, at 2.

⁷⁴⁷ See European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 5.4.

⁷⁴⁸ Communication with Jean-Louis Colson, Head of the Maritime Transport Policy Unit of DG MOVE of the European Commission, 16 July 2010.

⁷⁴⁹ For an overview of EU member states' coordination at IMO, see Schult, *Das völkerrechtliche Schiffssicherheitsregime* (2005), at 365–367.

⁷⁵⁰ European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM(2008) 767, para. 5.2; COWI/DHI, *Ship Dismantling and Pre-Cleaning of Ships* (June 2007), at 130; cf. Puthucherril, *From Shipbreaking to Sustainable Ship Recycling* (2010), at 197–198.

owners of the ships,⁷⁵¹ thus taking account of the principle of producer's responsibility and accordingly being more 'in line' with the Hong Kong Convention. The frequency of these sales has been illustrated above.⁷⁵²

Conditions which may regulate individual sales contracts could address the seller as well as the buyer of the ship. These stipulations could go as far as including supervisory obligations for the seller⁷⁵³ regarding appropriate recycling conditions⁷⁵⁴ if and when the particular ship is sent for recycling within a certain time period after the sale in question.⁷⁵⁵ A simpler alternative could be a general restriction on the seller not to sell the ship until assurance has been obtained that the ship will be registered in a state listed as a flag of registry complying with a particular set of recycling standards.⁷⁵⁶ Contracts of sale could also be drawn up to incorporate clauses prescribing particular standards with regard to ship recycling, e.g., by reference to the Hong Kong Convention in its entirety⁷⁵⁷ and/or related guidelines.⁷⁵⁸ This could also be done by explicitly obligating the buyer to "take appropriate steps to ensure the facility where the recycling is to take place abides by acceptable

⁷⁵¹ European Union companies own approximately 33 % of the world's gross tonnage; see Milieu/COWI, 'Note on pros and cons of early transposition of the Ship Recycling Convention' (2009), at 9; see Tan, Vessel-Source Marine Pollution (2005), at 354–355: "[...] efforts should be directed more at the beneficial owners of vessels registered in the open registries and the developing states. In the first place, many of these owners are nationals of the developed states such as Greece, Norway, Japan, the US and the UK".

⁷⁵² See supra chapter "European Ship Recycling Regulation", B.IV.4.a)bb) (pp. 213 et seq.).

⁷⁵³ See Art. 15.3 of Directive 2008/98/EC which leaves it to the discretion of each member state whether "the responsibility for arranging waste management is to be borne partly or wholly by the producer of the product from which the waste came and that distributors of such product may share this responsibility".

⁷⁵⁴ With 'appropriateness' referring to an equivalent standard as established by the Hong Kong Convention.

⁷⁵⁵ Another option would be to include the obligation of the seller to agree to a condition to ship back all the toxic components and residues once the ship recycling process has been completed; see, e.g., Eason, 'DFDS acts on waste disposal rules', Lloyd's List, 15 March 2010, at 9.

⁷⁵⁶ Similarly European Commission, 'An EU strategy for better ship dismantling', EU-doc. COM (2008) 767, para. 5.2.

⁷⁵⁷ This would, *inter alia*, also include the obligation to maintain and update the inventory of hazardous materials which would eventually facilitate the ship recycling operations; with regard to government-owned ships and the 'Green Passport', see UK DEFRA, UK Ship Recycling Strategy (2007), at 4.

⁷⁵⁸ It is however not advisable to include reference to the Basel Convention in this context because this might create additional confusion in the mid-term and long-term, particularly after the entry-into-force of the Hong Kong Convention; on the other hand, it may still be reasonable to make reference to the Basel Convention's 'Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships' (UN-doc. UNEP/CHW.6/23) as suggested by the UK DEFRA, UK Ship Recycling Strategy (2007), at 4; a valuable alternative would comprise a reference to some or all IMO guidelines which are currently developed; see supra chapter "European Ship Recycling Regulation", note 335 and accompanying text (p. 153).

environmental, health and safety standards”.⁷⁵⁹ Still other clauses could require the buyer to obtain permission from the seller or, even stronger, prior written consent, with regard to recycling operations.⁷⁶⁰ Less extensive conditions could involve notification and reporting obligations for the buyer when the ship is sent for recycling; these obligations could be additionally supplemented by liability provisions should certain guidelines be neglected.

Altogether, the regulation of the sale of ships prior to recycling could provide an effective indirect tool to ensure *ex ante* compliance with appropriate ship recycling standards. In view of the vast variety of options available, the most reasonable EU approach appears to be the establishment of a standard contract of sale applicable to ships. Currently, no such contract exists, with the exception of the ‘Demolishcon’ standard contract developed by BIMCO, which is hardly ever used in practice. The use of a European standard sales contract could be made mandatory for all sales of ships included on the above-mentioned list. As regards content, the standard contract should attempt to find an appropriate balance between obligations to the seller on the one hand, and those addressing the buyer on the other hand, taking the Polluter Pays Principle into account.

c) Summary

As has been shown, the re-flagging of ships prior to ‘disposal’ and—to a lesser extent—the sale of ships at the same point in time provide two major impediments to the objective of European complementary measures, i.e. “to ensure that ships with a strong link to the EU in terms of flag or ownership are dismantled only in safe and environmentally sound facilities worldwide, in line with the [...] Ship Recycling Convention”.⁷⁶¹

The fact that re-flagging as such has been the subject of a concerted control effort for quite some time, with limited results, makes it necessary to develop a different approach to the issues at stake. The establishment of a list of ships ready for recycling could provide a possible solution by monitoring the European merchant fleet more closely, thus facilitating transparency and providing a basis for further regulation. This list could be complemented by a European standard sales contract applicable to all ships listed in a certain category, incorporating a number of obligations and responsibilities with respect to disposal and recycling operations. Of course, these suggestions do not affect the simple re-flagging ships from an EU member state to an FOC. Unfortunately, instances of re-flagging clearly outnumber the cases of ships being sold prior to disposal. This may be one of the explanations why the struggle against FOCs has not achieved much progress in the past. There have however been some minor developments and the indirect measures discussed above provide another step into this direction.

⁷⁵⁹ UK DEFRA, UK Ship Recycling Strategy (2007), at 4.

⁷⁶⁰ With regard to the latter in the particular context of government-owned ships, see *ibidem*, at 4.

⁷⁶¹ See *supra* chapter “European Ship Recycling Regulation”, B.IV (p. 194).

5. Additional Measures

Additional measures refer to means of a political rather than legal nature and include encouraging voluntary action, bilateral agreements and capacity-building initiatives. To complement legislative action by other non-binding instruments has long been identified as one key factor facilitating higher effectiveness of European Union action.⁷⁶²

a) Encouragement of Voluntary Action

The European Commission has already started its campaign to promote voluntary action in the shipping industry:

The shipping industry has the means and – in view of the ‘polluter pays’ principle – also the responsibility to improve ship dismantling practices in the interim period, until the new international regime takes effect.⁷⁶³

In its proposal regarding the interim period and interim measures, Japan suggested the guidelines referred to in the Hong Kong Convention should be voluntarily implemented, as far as is reasonable and practicable.⁷⁶⁴ This method of implementation would constitute a major part of the reasonably expected interim measures, and it would also facilitate the future management of practical constraints such as capacity allocation in relevant industries and authorities.⁷⁶⁵ Viewed from this perspective, the implementation of these guidelines is closely connected to more general capacity-building initiatives, including technical co-operation efforts and bilateral agreements.

⁷⁶² European Commission, ‘European Governance – A White Paper’, EU-doc. COM(2001) 428, para. 3.2.

⁷⁶³ European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 6; see also the opinion of the European Economic and Social Committee on the European Commission’s ‘An EU strategy for better ship dismantling’, EU-doc. C 277/67, para. 5.3.

⁷⁶⁴ Submission by Japan to MEPC 57, ‘Progress report on the work related to the requirements for ship recycling facilities including the trial ship recycling project and the proposal for future work plan’ (25 January 2008), IMO-doc. MEPC 57/3/6, paras. 14–15; see also European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 5.3; for information on voluntary commitments already undertaken by some industry stakeholders, see European Commission, ‘Green Paper on better ship dismantling’, EU-doc. COM(2007) 269, para. 3.5; for a first example of voluntary action in this respect, see Lewis, ‘Thomas Schulte to voluntarily issue recycling certificates’, Tradewinds, 19 February 2010, at 12.

⁷⁶⁵ In this context, see, e.g., the ethical scrapping guide drafted by industry stakeholders such as ICS, Intercargo, Intertanko, BIMCO and IACS, as reported by Browne, ‘Unethical scrapping sanctions mooted’, Fairplay, 17 September 2009, at 7; see also Spurrier, ‘Scrap ships to avoid capacity “bloodbath”’, Lloyd’s List, 30 June 2009, at 16.

b) Bilateral Agreements

Whereas the encouragement of voluntary action addresses industry stakeholders and is therefore primarily restricted to companies within the EU, bilateral agreements aim at influencing the behaviour of third states, i.e. states outside the territory of the EU. Although these agreements are sometimes pejoratively labelled as persuasive control⁷⁶⁶ or categorised as coming under the wider framework of the EU's development aid policy,⁷⁶⁷ dialogue with other states has long been an essential foreign policy instrument for the EU. Although other instruments such as policy recommendations, programs of action and declarations of principles have become more and more influential,⁷⁶⁸ their non-binding nature and open wording render them similar to present impacts of the not (yet) binding Hong Kong Convention on current ship recycling practice in South Asian states.

The EU signed bilateral agreements specific to the field of ship-building with Korea in 2000.⁷⁶⁹ After the *Prestige* accident, the EU strove to exert political pressure in order to improve regional maritime safety by ending the use of single hull oil tankers.⁷⁷⁰ With particular regard to maritime safety considerations, the economic implications of EU measures for third states were—in principle—considered insignificant.⁷⁷¹ In the context of ship recycling, a current suggestion

⁷⁶⁶ See the twelfth indent to Regulation (EC) No 1726/2003 of the European Parliament and of the Council of 22 July 2003 amending Regulation (EC) No 417/2002 on the accelerated phasing-in of double-hull or equivalent design requirements for single-hull oil tankers which emphasises the urgency to persuade third countries in this respect.

⁷⁶⁷ European Parliament, 'Resolution on an EU strategy for better ship dismantling' (26 March 2009), EU-doc. RSP/2009/2571.

⁷⁶⁸ See generally Kiss/Shelton, *International Environmental Law*² (2000), at 48–52. Directive or policy recommendations are typically issued by international organisations to their respective state members, thus being only of limited relevance in the context of addressing third countries. Programs of action, on the other hand, set forth and announce the activities of the drafting organisation for the future which might be interesting as a tool of information and transparency; the overall objectives of the European Union with regard to ship recycling are quite obvious in view of the European Commission's 'EU strategy on better ship dismantling', EU-doc. COM (2008) 767. Besides, a program of action similar to the 'Action Plan for the Human Environment', adopted at the 1972 United Nations Conference on the Human Environment in Stockholm, will not be issued in the field of ship recycling by the European Union in the foreseeable future. This applies *mutatis mutandis* to declarations of principles which have also been explained at length in the mentioned strategy.

⁷⁶⁹ Council Decision 2000/409/EC of 19 June 2000 on the signing and conclusion of Agreed Minutes between the European Community and the Government of the Republic of Korea relating to the world shipbuilding market; European Commission, 'Proposal for a Council Decision on the signing and conclusion of an international agreement between the European Community and the Republic of Korea in the form of Agreed Minutes relating to the world shipbuilding markets', EU-doc. COM(2000) 326.

⁷⁷⁰ Twelfth and fourteenth indent to Regulation (EC) No 1726/2003 of the European Parliament and of the Council of 22 July 2003.

⁷⁷¹ See the fourteenth indent to Regulation (EC) No 1726/2003 of the European Parliament and of the Council of 22 July 2003.

includes the transfer of know-how and technology to South Asian ship recycling facilities to facilitate future compliance with standards established by the Hong Kong Convention and accompanying guidelines.⁷⁷² A more lenient proposal refers to the present EU/India maritime agreement⁷⁷³ and requests ship recycling-related provisions be included.⁷⁷⁴ A third proposal suggests to “develop, together with the administration of one (or more) interested recycling State(s), an effective and commercially sustainable package of interim measures”.⁷⁷⁵ All proposals agree insofar as these issues should be raised at the political level.⁷⁷⁶

These bilateral agreements could plausibly be drawn up in the wider context of European capacity-building initiatives which would make it easier to link specific issues such as child labour,⁷⁷⁷ trade unions, environmental awareness, and human rights.⁷⁷⁸ Strategic initiatives like these have been categorised as instances of ‘tactical’⁷⁷⁹ or ‘strategic’⁷⁸⁰ issue-linkage. In spite of greater complexity and related risks,⁷⁸¹ they generally facilitate cooperation and eventually lead to win-

⁷⁷² European Parliament, ‘Resolution on an EU strategy for better ship dismantling’ (26 March 2009), EU-doc. RSP/2009/2571.

⁷⁷³ A new maritime agreement between the EU and India is currently under negotiation; see the general background note on EU-India relations of 21 June 2010, EU-doc. MEMO/10/265, para. 4; see European Commission, ‘Green Paper on better ship dismantling’, EU-doc. COM(2007) 269, at 13–14.

⁷⁷⁴ See the opinion of the European Economic and Social Committee on the European Commission’s ‘An EU strategy for better ship dismantling’, EU-doc. C 277/67, para. 1.8.

⁷⁷⁵ Mikelis, ‘The Hong Kong Convention on Ship Recycling’, European Maritime Safety Agency Ship Recycling Workshop 2011, at 15.

⁷⁷⁶ European Commission, ‘Developing the international dimension of the Integrated Maritime Policy of the European Union’, EU-doc. COM(2009) 536, para. 4; COWI/DHI, *Ship Dismantling and Pre-Cleaning of Ships* (June 2007), at 135–136; see also the opinion of the European Economic and Social Committee on the European Commission’s ‘An EU strategy for better ship dismantling’, EU-doc. C 277/67, para. 1.8.

⁷⁷⁷ See the opinion of the European Economic and Social Committee on the European Commission’s ‘An EU strategy for better ship dismantling’, EU-doc. C 277/67, para. 4.6.

⁷⁷⁸ European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 6: “Technical assistance to developing countries for the upgrading of their relevant infrastructure can also play a role but will depend on cooperation by recycling states”; for general information on issue linkage, see Sebenius, ‘Negotiation arithmetic: adding and subtracting issues and parties’, 37 *Int’l Org.* 281–316 (1983); Tollison/Willett, ‘Economic Theory of Mutually Advantageous Issue Linkages in International Negotiations’, 33 *International Organization* 425–449 (1979); see also Barry/Reddy, ‘International Trade and Labor Standards: A Proposal for Linkage’, 39 *Cornell Int’l L. J.* 545–639 (2006); Leebron, ‘Linkages’, 96 *A.J.I.L.* 5–27 (2002).

⁷⁷⁹ Haas, ‘Why Collaborate? Issue-Linkage and International Regimes’, 32 *World Politics* 357 (1980), at 373: “Tactical issue-linkage [...] is simply a way of maximizing the separate gains of the parties [...]”.

⁷⁸⁰ Wagner, ‘The Design of Stable International Environmental Agreements: Economic Theory and Political Economy’, 15 *J. Econ. Surveys* 377 (2001), at 398–401.

⁷⁸¹ See Ayling, ‘Serving Many Voices: Progressing Calls for an International Environmental Organisation’, 9 *J. Env’tl. L.* 243 (1997), at 266; one particularly relevant risk is related to the

win-situations,⁷⁸² provided that institutional frameworks exist demonstrating potential joint gains.⁷⁸³ With regard to ship recycling regulation, this strategy might further accelerate the entry-into-force of the Hong Kong Convention.⁷⁸⁴

c) Capacity-Building

Capacity-building could provide an opportunity to govern and guide the progress of raising standards for ship recycling procedures on South Asian ship recycling beaches. However, capacity-building does not necessarily presuppose development aid. In general, the term capacity-building refers to assistance given to achieve certain standards, understood both in terms of technological capacity and related know-how.⁷⁸⁵ Therefore, besides technical cooperation and knowledge transfer to South Asian ship recycling facilities, capacity-building measures also include initiatives aimed at strengthening EU ship recycling capacity.

aa) Strengthening EU Ship Recycling Capacity

The attitude towards strengthening ship recycling capacity within the European Union has changed slightly over the last decade. Whereas originally the EU had

fact that issue linkage first of all requires two or more issues to be linked for a reason which is not self-explanatory. In a second step, this has implications for national bureaucratic structures insofar as different domestic bodies have to deal with an artificially composed subject. As true as this is for states, it applies even more to the European Commission whose DG Environment and DG MOVE occasionally are particularly antagonistic towards each other; see Tollison/Willet, 'Economic Theory of Mutually Advantageous Issue Linkages in International Negotiations', 33 *International Organization* 425 (1979), at 445; in a more general context, see Leebron, 'Linkages', 96 *A.J.I.L.* 5 (2002), at 8; for a – to some extent – sceptical assessment, see Sebenius, 'Negotiation arithmetic: adding and subtracting issues and parties', 37 *International Organization* 281 (1983), at 300–303.

⁷⁸² See Keohane, *After Hegemony* (1984), at 97; Shelton, 'The Impact of Economic Globalization on Compliance', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), 35, at 40–41; Wiener, 'Global Environmental Regulation: Instrument Choice in Legal Context', 108 *Yale L. J.* 677 (1999), at 750.

⁷⁸³ European Commission, 'Developing the international dimension of the Integrated Maritime Policy of the European Union', EU-doc. COM(2009) 536, para. 4; see also Haas, 'Why Collaborate? Issue-Linkage and International Regimes', 32 *World Politics* 357 (1980), at 374: "Knowledge can legitimate collaborative behavior only when the possibility of joint gains from the collaboration exists and is recognized" (*italics omitted*); Aceves, 'Institutionalist Theory and International Legal Scholarship', 12 *Am. U. J. Int'l L. & Pol'y* 227 (1997), at 248; Mearsheimer, 'The False Promise of International Institutions', 19:3 *Int'l Sec.* 5 (1994/1995), at 18.

⁷⁸⁴ For issue linkage in the context of the IMO, see IMO Assembly resolution, 'Technical Co-operation as a Means of Promoting the Acceptance and Implementation of IMO Instruments' (27 November 1997), IMO-doc. A.873(20).

⁷⁸⁵ See Stoll, 'Transfer of Technology', in Wolfrum (ed.), *United Nations: Law, Policies and Practice* (1995), at 1229.

a clear policy objective not to rebuild inefficient European capacity in this respect,⁷⁸⁶ today, the approach is anything but clear.⁷⁸⁷

The European Commission recognised early on that the under-use of existing ‘green’ ship recycling facilities within the EU, Turkey and China resulted from a lack in demand and not from a lack in supply.⁷⁸⁸ After all, the global ship recycling market—mainly due to overall interdependency⁷⁸⁹—is considered flexible enough to quickly respond to modified market demands.⁷⁹⁰ Despite this, the Council of the European Union issued a statement on 17 May 2006 requesting European Union member states to endeavour to increase ship dismantling capacity within the EU. On 20 November of that same year, it adopted a conclusion inviting the European Commission to assess the need for building up sufficient ship dismantling capacity in the EU.⁷⁹¹ The assessment showed that the reason for the lack of demand is primarily due to the fact that there is currently no level playing-field in terms of standards, ultimately making it impossible for EU ship recycling facilities to compete with their South Asian colleagues.⁷⁹² This reasoning however does not take into account the fact that even if South Asian ship recycling facilities did provide ‘green’ and high-standard ship recycling, their European competitors would still not be able to compete with them due to their dramatically reduced (labour) costs. In light of this, the demand for a “level playing-field in the form of effective and sound mandatory standards for ship dismantling worldwide” sounds a little naïve.⁷⁹³

Currently it would appear that strengthening European ship recycling capacity has risen on the agenda as a result of the financial crisis. However, recent statements made on behalf of the European Commission in the European Parliament make it unclear at the moment whether the European Commission itself supports this tendency, whether its directorates represent incoherent views⁷⁹⁴ or whether the question is still lost in moral rhetoric.⁷⁹⁵

⁷⁸⁶ European Commission DG TREN, *Oil Tanker Phase Out and the Ship Scrapping Industry* (2004), at 128 and 132.

⁷⁸⁷ Robinson, ‘Scrap in Europe’, *Shipping World and Shipbuilder*, December/January 2010, at 30–31; COWI/DHI, *Ship Dismantling and Pre-Cleaning of Ships* (June 2007), at 131–135.

⁷⁸⁸ European Commission, ‘Green Paper on better ship dismantling’, EU-doc. COM(2007) 269, at 12.

⁷⁸⁹ See *supra* chapter “Entry-Into-Force Provision”, D.I.1.c) (pp. 72 et seq.).

⁷⁹⁰ See, e.g., Milieu/COWI, ‘Note on pros and cons of early transposition of the Ship Recycling Convention’ (2009), at 24.

⁷⁹¹ See European Commission, ‘Green Paper on better ship dismantling’, EU-doc. COM(2007) 269, at 12.

⁷⁹² *Ibidem*, at 12.

⁷⁹³ *Ibidem*.

⁷⁹⁴ As shown above, successful preference aggregation of unitary actors which themselves consist of groups of individuals is only a simplification of reality; see *supra* chapter “Entry-Into-Force Provision”, D.II.1 (pp. 76 et seq.).

⁷⁹⁵ Parliamentary questions, 17 May 2010, answer given by Mr Potočnik on behalf of the European Commission, EU-doc. E-1895/2010: “[...] the objective of an EU policy should not be to artificially bring back ship recycling business volumes to the EU, thus depriving countries in South Asia or elsewhere of a major source of revenue”; see also the opinion of the European

bb) 'Capacity-Building' in Its Stricter Sense

Capacity-building, understood in its strictest sense, is more closely connected to bilateral agreements than to ship recycling capacity within the EU. The term refers to the transfer of both technology and know-how⁷⁹⁶ as "[...] an *ex ante* means for inducing compliance".⁷⁹⁷ Its significance has long been recognised within the United Nations' system⁷⁹⁸ and the European Union.^{799,800}

From the perspective of developing countries, three achievements are linked to the term 'capacity-building': Firstly, increased awareness leads to knowledge, thus literally building cognitive capacity. Secondly, technical assistance and cooperation may facilitate the implementation of environmental strategies. Thirdly, standards achieved through these means facilitate future increases of these established standards.⁸⁰¹

In this context, it is worth noting that the secretariat of the Basel Convention received a request for technical capacity assistance for ship recycling from the government of Pakistan. For this reason, the secretariat organised a "technology and knowledge transfer workshop".⁸⁰² It is also worth noting that international cooperation established the 'Global Programme for Sustainable Ship Recycling' with a view to facilitating the implementation of the Hong Kong Convention and related guidelines.⁸⁰³

In a nutshell, more and more international environmental cooperation initiatives with European Union participation are in one way or another linked to joint programmes focussing on assistance as well as research and development which,

Economic and Social Committee on the European Commission's 'An EU strategy for better ship dismantling', EU-doc. C 277/67, paras. 1.5 and 4.8.

⁷⁹⁶ See Stoll, 'Transfer of Technology', in Wolfrum (ed.), *United Nations: Law, Policies and Practice* (1995), at 1229.

⁷⁹⁷ Boisson de Chazournes, 'Technical and Financial Assistance and Compliance: the Interplay', in Beyerlin/Stoll/Wolfrum (eds.), *Ensuring Compliance with Multilateral Environmental Agreements* (2006), 273, at 277.

⁷⁹⁸ See, e.g., UN GA Resolution 522 (VI) on 'Methods to increase world productivity' of 12 January 1952 and UN GA Resolution 200 (III) on 'Technical Assistance for Economic Development' of 4 December 1948; Stoll, 'Transfer of Technology', in Wolfrum (ed.), *United Nations: Law, Policies and Practice* (1995), at 1229.

⁷⁹⁹ See, e.g., European Parliament, 'Resolution on capacity-building in the developing countries', EU-doc. 2002/2157(INI).

⁸⁰⁰ Chayes/Chayes, *The New Sovereignty* (1995), at 197–201, 227–228; in this context, see also Articles 202–203 UNCLOS and Article 13 HKC.

⁸⁰¹ See Fakhry, 'Capacity-Building in International Marine Environmental Law: Perspectives of Developing Countries', in Kirchner (ed.), *International Marine Environmental Law* (2003), 93, at 94–95.

⁸⁰² See the note by the Basel Secretariat, 'Legal and compliance matters: environmentally sound dismantling of ships', UN-doc. UNEP/CHW/OEWG/7/11, para. 13.

⁸⁰³ Report of the Joint Working Group of the International Labour Organization, the International Maritime Organization and the Basel Convention on Ship Scrapping on its third session (1 March 2010), UN-doc. UNEP/CHW/OEWG/7/Inf/17, paras. 48–50.

institutionally and/or effectively, employ incentives that usually exceed the gains possibly resulting from following a ‘wait and see’-approach.

V. Summary

A number of measures and instruments have been analysed and evaluated against the overall objective of European ship recycling initiatives, i.e. to “contribute to safer and more environmentally sound treatment of end-of-life ships worldwide”.⁸⁰⁴ As a starting point, the competencies of European Union efforts have been highlighted, taking into account fundamental principles. Better enforcement of existing EU legislation has been considered, just as transposition measures for the Hong Kong Convention have been examined. Moreover, the development of complementary measures was brought into focus in order to emphasise the mix of instruments being utilised with increasing frequency to tackle specific environmental issues.

The findings are almost exactly what one would expect: From what has been published so far, the European Union seems to not only want to actually achieve progress with regard to ship recycling regulation but also to furnish it in a specifically European way. The best indication for this latter statement is that the European Union still speaks about ‘ship dismantling’ while the rest of the world has agreed on the term ‘ship recycling’. It may also not come as a total surprise if, in the aftermath of the global economic crisis, joint European efforts were concentrated on the re-establishment of an internationally significant ship recycling industry within the European Union, as a matter of course primarily for environmental reasons.

The second result is a (generally) positive finding: The current efforts being conducted by the European Commission with regard to ship recycling regulation and associated measures provide, in principle, a positive example of how “institutional fragmentation of international environmental governance [has lead] to increasing interaction”⁸⁰⁵ between various stakeholders such as IMO, ILO, the Basel Convention and, eventually, the European Union.⁸⁰⁶ Normative

⁸⁰⁴ See European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 1.

⁸⁰⁵ See Gehring, ‘Treaty-Making and Treaty Evolution’, in Bodansky/Brunnée/Hey (eds.), *The Oxford Handbook of International Environmental Law* (2007), 467, at 475.

⁸⁰⁶ In this context, see von Moltke, ‘Clustering International Environmental Agreements as an Alternative to World Environment Organization’, in Biermann/Bauer (eds.), *A World Environment Organization* (2005), 175, at 177, 193; Timoshenko, ‘UNEP Initiatives to Promote Compliance with Multilateral Environmental Agreements’, in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), 125, at 137; see also *supra* chapter “The Hong Kong Convention”, B.III.2 (pp. 29 et seq.).

developments within the IMO sphere have prompted European Union bodies to plan the adoption of relevant legislation as well, and European Union efforts will—ultimately, after adoption—have greatly benefited from the previous work undertaken by IMO bodies such as the MEPC. The main disadvantage, however, is that the European Commission itself is still too fragmented to be able to tackle the relevant problems in a uniform and effective way.⁸⁰⁷

Ultimately, it seems inevitable that, in light of the deadlock situation surrounding the Hong Kong Convention, unilateral approaches such as European Union initiatives might provide the only legally binding instruments for the next 10 to 15 years to come. Even if current ship recycling practices and standards are improved due to measures of a protectionist nature, which then raises questions regarding financial and/or sustainable ambiguity, the question remains whether these aspects of criticism can be overlooked in light of the actual improvements achieved.

⁸⁰⁷ For eventually sceptical notes in this context, see Stares, ‘Brussel denies ditching shipbreaking measures’, *Lloyd’s List*, 7 April 2010, at 2; idem, ‘Shipbreaking policy disappears from political radar’, *Lloyd’s List*, 9 July 2010, at 4.

Conclusions and Perspectives

A. Findings

1. The dismantling and recycling of end-of-life ships is carried out primarily in India, Bangladesh, Pakistan, China and Turkey, with only the latter two providing—relatively—reliable standards in terms of safety measures and/or environmental protection. Therefore, although the ship recycling industry offers jobs to thousands of the poorest labourers and constitutes a major source of second-hand resources such as recycled steel, this does not mitigate the damage it causes. The detriment encompasses, *inter alia*, illnesses such as particular forms of lung cancer, damage to human health resulting from high accident rates and irreparable devastation of South Asian beaches.
2. As a regulatory solution to this situation, the *2009 Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships* aims at preventing, reducing, minimising and, to the extent practicable, eliminating accidents, injuries and other adverse effects on human health and the environment caused by ship recycling. Its articles and regulations, developed under the auspices of IMO and jointly patronised by the Basel Convention Secretariat and the ILO, stipulate obligations for both ships and ship recycling facilities. Of these, the inventory of hazardous materials and the ship recycling plan are particularly worth noting.
3. Entry-into-force provisions for multilateral environmental agreements are not merely formal requirements which simply have to be ticked off in order for the agreement to enter into force. In fact, compared to more substantial issues, debates on entry-into-force provisions have risen to an almost equally important significance. This is reflected in the fact that, just like all the other politically crucial issues, the entry-into-force requirements for the Hong Kong Convention were left open for discussion at the Diplomatic Conference.
4. Not too surprisingly, these discussions turned out to be among the most controversial debates of the Diplomatic Conference on Ship Recycling. They proved to be very helpful in terms of revealing the structure and delimitation

of the individual power blocs in international maritime affairs. Therefore, the conclusion that the debates on the entry-into-force provision mirrored the substance of the Hong Kong Convention would not be entirely misplaced.

5. The final formula, requiring not only a certain number of states and a specific percentage of the world merchant tonnage, but also a certain ship recycling capacity to be represented prior to entry-into-force, is an attempt at institutionally ensuring the participation of the most essential players in the game, i.e. the major flag states as well as the key ship recycling states. Comparing these requirements to entry-into-force provisions of other IMO conventions shows that this approach poses the risk of making “entry into force hostage to the decision of just one or two states”,¹ although this has not been demonstrated yet.
6. While the entry-into-force provision seems to be reasonably balanced from a constructive perspective, critical evaluation brings to light a number of negative aspects: Firstly, the inclusion of an additional condition institutionally sends out a signal of overall scepticism; secondly, the procedure of calculating the necessary ship recycling capacity neglects both the fact that previously existent capacity might not be available in the future, and the problem that the existing capacity does not necessarily equal to ‘green’ capacity. It is, however, green capacity that States Parties are obliged to resort to under the Hong Kong Convention.
7. Economic considerations also support this finding: Considering the fundamental importance of the price mechanism in shipping markets and the interdependency of the different sub-markets, the structure of economic incentives employed in the Hong Kong Convention seems to be ineffective. Specifically considering this issue, it is highly probable that both major groups of states in terms of relevance regarding the Hong Kong Convention, i.e. the key ship recycling states on the one hand and the major flag states on the other, prefer to follow a ‘wait and see’-approach instead of proceeding unilaterally or collectively. From a collective action perspective, taking into account aggregated preferences of the individual states’ groups, the economic incentives employed seem to impose a structural imbalance by disadvantaging flag states even more than recycling states. This strategic setting may only be positively modified by the implementation of a value-oriented approach by one of the major actors at the international level.
8. Therefore, a unilateral approach on the part of the European Union with a view to contributing “to safer and more environmentally sound treatment of end-of-life ships worldwide”,² might induce key recycling states to implement some of these standards, particularly when several of the major flag states are involved. This pressure, and subsequent adoption of higher standards may

¹ Sands, *Principles of International Environmental Law*² (2003), at 133.

² European Commission, ‘An EU strategy for better ship dismantling’, EU-doc. COM(2008) 767, para. 1.

lead to an improvement in the current practices of ship recycling and induce other flag states to follow the European Union's lead. Regulation by and within the European Union therefore might eventually result in indirect repercussions on states that are generally rather hesitant as regards further regulation in maritime affairs.

9. For European Union initiatives in this respect, better enforcement of existing European legislation has often been announced as some kind of *panacea* which often does not live up to its promise. This is particularly true with regard to the Waste Shipment Regulation, now to a certain extent an obsolescent model, which will almost certainly be restricted in scope so as not to render irrelevant the joint (drafting) efforts for the Hong Kong Convention. A more reasonable approach might therefore involve better enforcement of other provisions of EU legislation although this would only further the fragmented patchwork already in existence. Ultimately, this assessment can be understood as a plea for an integrated approach in this matter, as promoted by the European Commission in its 'Integrated Maritime Policy for the European Union'.³
10. Early transposition of the Hong Kong Convention as a whole by a regulation as used for the AFS Convention would be a preferable first step in contributing to the realisation of its objectives and would dilute the criticism generally associated with unilateral approaches in international law. A transposition of the key requirements only should be regarded as a second choice, as this would lead to further fragmentation, despite possibly functionally complementing other, already existing, provisions under EU legislation.
11. Whilst it may perhaps provide an institutional solution to the crucial issue of 'beaching', whether a European scheme for audit and certification of ship recycling facilities is worth the effort and cost in the short or medium term is not clear. It seems that the current focus on the establishment of such a scheme is due to a specific political mindset rather than to a rational consideration of the issues at stake.
12. The establishment of a ship dismantling fund raises the most complex issues. While its purpose is clear and reasonable, a number of flaws or, alternatively, sources of conflict appear to result from the proposed mechanism: Firstly, the source of funding is questionable as it does not reflect the comprehensive 'cradle-to-grave' approach that is one of the most fundamental rationales of the Hong Kong Convention. In the European context, this aspect may meet with significant disapproval due to its 'producer responsibility' approach. Secondly, the discrepancy between those obliged to pay the recurrent charge, thus funding the instrument, and those entitled to apply for compensation from the fund is more than problematic and may even lead to WTO disputes in the future. Finally, as the ship dismantling fund shall provide a means of funding shipowners instead of ship recycling facilities, this might additionally raise questions as to the overall sustainability of the system.

³ EU-doc. COM(2007) 575.

13. An examination of complementary indirect measures, focussing on re-flagging and selling end-of-life ships to FOCs, has initially demonstrated the overall tendency of re-flagging ships in general and those due for disposal in particular. The same analysis has however also shown that there is no general tendency to sell end-of-life ships, although this is not completely uncommon. Therefore, regulation of re-flagging as such does not currently promise an effective solution; however, a list of ships ready for recycling might provide a reasonable starting point for further regulatory action. Yet, it should be noted that such a list may risk distorting competition to the disadvantage of European shipowners. Moreover, this instrument should not be utilised in order to enforce the provisions of the WSR, as this would simply increase the legal uncertainty of shipowners, thus inducing them further to register their merchant fleet in FOCs. Finally, while regulation of the sale of end-of-life ships through established standard sales contracts initially sounds promising, the rarity of these sales would render this initiative a toothless tiger.
14. Ultimately, there is consensus to the extent that further additional measures such as the encouragement of voluntary action by the industry, bilateral agreements and capacity-building initiatives should be raised at the political level. This may also facilitate issue linkage, thereby increasing awareness and supporting regional political action on related issues including child labour, trade unions, environmental protection, and human rights.

B. Implications

The first implication of these findings is a sceptical assessment of the immediate future of international ship recycling regulation: Both the structure of the entry-into-force provision of the Hong Kong Convention and its overall content are not particularly conducive to states taking appropriate measures immediately. This fostering of a 'wait and see' approach will almost certainly not see the Hong Kong Convention entering into force in due course, although five ratifications had been received by end-2010. It is expected that the ratification requirements will not be met before 2020, thus almost doubling the present average entry-into-force period of international agreements developed under the auspices of IMO.

Secondly, the fact that the provisions of the Hong Kong Convention will not become legally binding for a considerable period of time renders interim initiatives even more important. This is also why a clear-cut distinction between the Basel Convention and the Hong Kong Convention should be put on top of the agenda instead of further postponing this issue which may result in the maritime industry avoiding related intervention by resorting to institutional alternatives.

Finally, individual actors focussing on initiatives with a restricted, regional scope should be reminded that while unilateral approaches might provide the only legally binding possibility of achieving progress, these initiatives should be based on the existing framework of jointly established concepts and principles

with a view to ensuring sustainability,⁴ to avoid not putting the cart before the horse but also to ensure that the cart is eventually pulled in the right direction.

C. Perspectives

Future perspectives in the field of ship recycling regulation primarily relate to the entry-into-force of the Hong Kong Convention, and the development of global scale technical cooperation programmes.⁵ Additionally, and almost equally important in the context of European initiatives in this respect, the development of related IMO guidelines is particularly worth noting. These documents will not only provide internationally accepted interpretative guidance on the convention, thus facilitating both its understanding and its implementation, but also form a basis for potential complementary European measures.

Therefore, the ease in governing the process of adoption of these guidelines, and whether MEPC meets scheduled deadlines are of key interest in this process.⁶ Deviances in this regard might facilitate a deeper understanding of the underlying dynamics of this matter, and could also indicate whether the predicted entry into force of the Hong Kong Convention comes to pass.

With particular regard to European Union efforts in this field, a key matter of interest and concern are the specific regulatory aspects to be included in the first European Commission legislative proposals, scheduled for adoption in early 2012.⁷ Furthermore, in the European context, some significance is also attached to the allocation of responsibility for ship recycling, namely whether it will continue to fall under the responsibility of the European Commission's DG Environment in the future, as it does today due to the institutional link to the European Waste Shipment Regulation, or whether it is shifted to the (formerly responsible) DG MOVE.⁸

⁴ See Shelton, 'The Utility and Limits of Codes of Conduct for the Protection of the Environment', in Kiss/Shelton/Ishibashi (eds.), *Economic Globalization and Compliance with International Environmental Agreements* (2003), 211, at 217–218.

⁵ See Oftedal, 'The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009', *Ship Scrapping & Recycling* (Lloyd's Maritime Academy seminar, 2009), at 35.

⁶ Guidelines for the development of the Inventory of Hazardous Materials: adopted at MEPC 59 (17 July 2009), advanced version adopted at MEPC 62 (15 July 2011); Guidelines for safe and environmentally sound ship recycling; Guidelines for the development of the Ship Recycling Plan: adopted at MEPC 62 (15 July 2011); Guidelines for the authorization of Ship Recycling Facilities; Guidelines for survey and certification: to be adopted at MEPC 64 (October 2012); Guidelines for inspection of ships: to be adopted at MEPC 64 (October 2012); cf. Mikelis, 'The Hong Kong Convention and the ongoing work of IMO', *International Ship Recycling Symposium 2010*, at 22.

⁷ Communication with Julio García Burgués, Head of the Waste Management Unit of DG Environment of the European Commission, 12 December 2011.

⁸ The European Commission's DG MOVE currently only participates in an inter-service group on ship recycling, very much to industry stakeholders' chagrin.

Ultimately, this will also indicate which particular interests prevail in the end, and whether ship recycling regulation will eventually be enacted and implemented from an integrated and transport-related perspective or from an external point of view.

Nevertheless, it is highly questionable whether the institutional possibility of granting particular importance to environmental issues by integrating environmental protection requirements into the definition and implementation of other EU policies and activities pursuant to Article 11 TFEU is considered sufficient or whether more extensive views prevail in the end. Still, whereas it may be opportune to display a certain degree of scepticism in the view of several ideas mentioned, it is more than evident that European measures currently provide the only realistic option to achieve progress in the regulation of ship recycling. Hence, these final considerations underline the analysis' overall message as one of cautious optimism.

Annex

A. Text of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009

THE PARTIES TO THIS CONVENTION

NOTING the growing concerns about safety, health, the environment and welfare matters in the ship recycling industry,

RECOGNIZING that recycling of ships contributes to sustainable development and, as such, is the best option for ships that have reached the end of their operating life,

RECALLING resolution A.962(23), adopted by the Assembly of the International Maritime Organization (Guidelines on Ship Recycling); amendments to the Guidelines adopted by resolution A.980(24); Decision VI/24 of the Sixth Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, which adopted Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships; and the Guidelines approved by the 289th session of the Governing Body of the International Labour Office (Safety and Health in Shipbreaking: Guidelines for Asian countries and Turkey),

RECALLING ALSO resolution A.981(24), by which the Assembly of the International Maritime Organization requested the Organization's Marine Environment Protection Committee to develop a legally-binding instrument on ship recycling,

NOTING ALSO the role of the International Labour Organization in protecting the occupational safety and health of workers involved in ship recycling,

NOTING FURTHER the role of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal in protecting human health and the environment against the adverse effects which may result from such wastes,

MINDFUL of the precautionary approach set out in Principle 15 of the Rio Declaration on Environment and Development and referred to in resolution MEPC.67(37), adopted by the Organization's Marine Environment Protection Committee on 15 September 1995,

MINDFUL ALSO of the need to promote the substitution of hazardous materials in the construction and maintenance of ships by less hazardous, or

preferably, non-hazardous materials, without compromising the ships' safety, the safety and health of seafarers and the ships' operational efficiency,

RESOLVED to effectively address, in a legally-binding instrument, the environmental, occupational health and safety risks related to ship recycling, taking into account the particular characteristics of maritime transport and the need to secure the smooth withdrawal of ships that have reached the end of their operating lives,

CONSIDERING that these objectives may best be achieved by the conclusion of an International Convention for the Safe and Environmentally Sound Recycling of Ships,

HAVE AGREED as follows:

ARTICLE 1

General Obligations

1. Each Party to this Convention undertakes to give full and complete effect to its provisions in order to prevent, reduce, minimize and, to the extent practicable, eliminate accidents, injuries and other adverse effects on human health and the environment caused by Ship Recycling, and enhance ship safety, protection of human health and the environment throughout a ship's operating life.
2. No provision of this Convention shall be interpreted as preventing a Party from taking, individually or jointly, more stringent measures consistent with international law, with respect to the safe and environmentally sound recycling of ships, in order to prevent, reduce or minimize any adverse effects on human health and the environment.
3. Parties shall endeavour to co-operate for the purpose of effective implementation of, compliance with and enforcement of this Convention.
4. The Parties undertake to encourage the continued development of technologies and practices which contribute to safe and environmentally sound Ship Recycling.
5. The Annex to this Convention forms an integral part of it. Unless expressly provided for otherwise, a reference to this Convention constitutes at the same time a reference to its Annex.

ARTICLE 2

Definitions

For the purposes of this Convention, unless expressly provided otherwise:

1. "Convention" means the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009.

2. “Administration” means the Government of the State whose flag the ship is entitled to fly, or under whose authority it is operating.
3. “Competent Authority(ies)” means a governmental authority or authorities designated by a Party as responsible, within specified geographical area(s) or area(s) of expertise, for duties related to Ship Recycling Facilities operating within the jurisdiction of that Party as specified in this Convention.
4. “Organization” means the International Maritime Organization.
5. “Secretary-General” means the Secretary-General of the Organization.
6. “Committee” means the Marine Environment Protection Committee of the Organization.
7. “Ship” means a vessel of any type whatsoever operating or having operated in the marine environment and includes submersibles, floating craft, floating platforms, self elevating platforms, Floating Storage Units (FSUs), and Floating Production Storage and Offloading Units (FPSOs), including a vessel stripped of equipment or being towed.
8. “Gross tonnage” means the gross tonnage (GT) calculated in accordance with the tonnage measurement regulations contained in Annex I to the International Convention on Tonnage Measurement of Ships, 1969, or any successor convention.
9. “Hazardous Material” means any material or substance which is liable to create hazards to human health and/or the environment.
10. “Ship Recycling” means the activity of complete or partial dismantling of a ship at a Ship Recycling Facility in order to recover components and materials for reprocessing and re-use, whilst taking care of hazardous and other materials, and includes associated operations such as storage and treatment of components and materials on site, but not their further processing or disposal in separate facilities.
11. “Ship Recycling Facility” means a defined area that is a site, yard or facility used for the recycling of ships.
12. “Recycling Company” means the owner of the Ship Recycling Facility or any other organization or person who has assumed the responsibility for operation of the Ship Recycling activity from the owner of the Ship Recycling Facility and who on assuming such responsibility has agreed to take over all duties and responsibilities imposed by this Convention.

ARTICLE 3

Application

1. Unless expressly provided otherwise in this Convention, this Convention shall apply to:
 - .1 Ships entitled to fly the flag of a Party or operating under its authority;
 - .2 Ship Recycling Facilities operating under the jurisdiction of a Party.

2. This Convention shall not apply to any warships, naval auxiliary, or other ships owned or operated by a Party and used, for the time being, only on government non-commercial service. However, each Party shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities of such ships owned or operated by it, that such ships act in a manner consistent with this Convention, so far as is reasonable and practicable.
3. This Convention shall not apply to ships of less than 500 GT or to ships operating throughout their life only in waters subject to the sovereignty or jurisdiction of the State whose flag the ship is entitled to fly. However, each Party shall ensure, by the adoption of appropriate measures, that such ships act in a manner consistent with this Convention, so far as is reasonable and practicable.
4. With respect to ships entitled to fly the flag of non-Parties to this Convention, Parties shall apply the requirements of this Convention as may be necessary to ensure that no more favourable treatment is given to such ships.

ARTICLE 4

Controls Related to Ship Recycling

1. Each Party shall require that ships entitled to fly its flag or operating under its authority comply with the requirements set forth in this Convention and shall take effective measures to ensure such compliance.
2. Each Party shall require that Ship Recycling Facilities under its jurisdiction comply with the requirements set forth in this Convention and shall take effective measures to ensure such compliance.

ARTICLE 5

Survey and Certification of Ships

Each Party shall ensure that ships flying its flag or operating under its authority and subject to survey and certification are surveyed and certified in accordance with the regulations in the Annex.

ARTICLE 6

Authorization of Ship Recycling Facilities

Each Party shall ensure that Ship Recycling Facilities that operate under its jurisdiction and that recycle ships to which this Convention applies, or ships treated similarly pursuant to Article 3.4 of this Convention, are authorized in accordance with the regulations in the Annex.

ARTICLE 7

Exchange of Information

For the Ship Recycling Facilities authorized by a Party, such Party shall provide to the Organization, if requested, and to those Parties which request it, relevant information, in regard to this Convention, on which its decision for authorization was based. The information shall be exchanged in a swift and timely manner.

ARTICLE 8

Inspection of Ships

1. A ship to which this Convention applies may, in any port or offshore terminal of another Party, be subject to inspection by officers duly authorized by that Party for the purpose of determining whether the ship is in compliance with this Convention. Except as provided in paragraph 2, any such inspection is limited to verifying that there is on board either an International Certificate on Inventory of Hazardous Materials or an International Ready for Recycling Certificate, which, if valid, shall be accepted.
2. Where a ship does not carry a valid certificate or there are clear grounds for believing that:
 - .1 The condition of the ship or its equipment does not correspond substantially with the particulars of the certificate, and/or Part I of the Inventory of Hazardous Materials; or
 - .2 There is no procedure implemented on board the ship for the maintenance of Part I of the Inventory of Hazardous Materials;

A detailed inspection may be carried out taking into account guidelines developed by the Organization.

ARTICLE 9

Detection of Violations

1. Parties shall co-operate in the detection of violations and the enforcement of the provisions of this Convention.
2. When there is sufficient evidence that a ship is operating, has operated or is about to operate in violation of any provision in this Convention, a Party holding the evidence may request an investigation of this ship when it enters the ports or offshore terminals under the jurisdiction of another Party. The report of such an investigation shall be sent to the Party requesting it, to the Administration of the ship concerned and to the Organization, so that action may be taken as appropriate.

3. If the ship is detected to be in violation of this Convention, the Party carrying out the inspection may take steps to warn, detain, dismiss, or exclude the ship from its ports. A Party taking such action shall immediately inform the Administration of the ship concerned and the Organization.
4. If a request for an investigation is received from any Party, together with sufficient evidence that a Ship Recycling Facility is operating, has operated or is about to operate in violation of any provision of this Convention, a Party should investigate this Ship Recycling Facility operating under its jurisdiction and make a report. The report of any such investigation shall be sent to the Party requesting it, including information on action taken or to be taken, if any, and to the Organization for appropriate action.

ARTICLE 10

Violations

1. Any violation of the requirements of this Convention shall be prohibited by national laws and:
 - .1 In the case of a ship, sanctions shall be established under the law of the Administration, wherever the violation occurs. If the Administration is informed of such a violation by a Party, it shall investigate the matter and may request the reporting Party to furnish additional evidence of the alleged violation. If the Administration is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken as soon as possible, in accordance with its law. The Administration shall promptly inform the Party that reported the alleged violation, as well as the Organization, of any action taken. If the Administration has not taken any action within 1 year after receiving the information, it shall inform the Party which reported the alleged violation, and the Organization, of the reasons why no action has been taken;
 - .2 In the case of a Ship Recycling Facility, sanctions shall be established under the law of the Party having jurisdiction over the Ship Recycling Facility. If the Party is informed of such a violation by another Party, it shall investigate the matter and may request the reporting Party to furnish additional evidence of the alleged violation. If the Party is satisfied that sufficient evidence is available to enable proceedings to be brought in respect of the alleged violation, it shall cause such proceedings to be taken as soon as possible, in accordance with its law. The Party shall promptly inform the Party that reported the alleged violation, as well as the Organization, of any action taken. If the Party has not taken any action within 1 year after receiving the information, it shall inform the Party which reported the alleged violation, and the Organization, of the reasons why no action has been taken.

2. Any violation of the requirements of this Convention within the jurisdiction of any Party shall be prohibited and sanctions shall be established under the law of that Party. Whenever such a violation occurs, that Party shall either:
 - .1 Cause proceedings to be taken in accordance with its law; or
 - .2 Furnish to the Administration of the ship such information and evidence as may be in its possession that a violation has occurred.
3. The sanctions provided for by the laws of a Party pursuant to this Article shall be adequate in severity to discourage violations of this Convention wherever they occur.

ARTICLE 11

Undue Delay or Detention of Ships

1. All possible efforts shall be made to avoid a ship being unduly detained or delayed under Article 8, 9 or 10 of this Convention.
2. When a ship is unduly detained or delayed under Article 8, 9 or 10 of this Convention, it shall be entitled to compensation for any loss or damage suffered.

ARTICLE 12

Communication of Information

Each Party shall report to the Organization and the Organization shall disseminate, as appropriate, the following information:

- .1 A list of Ship Recycling Facilities authorized in accordance with this Convention and operating under the jurisdiction of that Party;
- .2 Contact details for the Competent Authority(ies), including a single contact point, for that Party;
- .3 A list of the recognized organizations and nominated surveyors which are authorized to act on behalf of that Party in the administration of matters relating to the control of Ship Recycling in accordance with this Convention, and the specific responsibilities and conditions of the authority delegated to the recognized organizations or nominated surveyors;
- .4 An annual list of ships flying the flag of that Party to which an International Ready for Recycling Certificate has been issued, including the name of the Recycling Company and location of the Ship Recycling Facility as shown on the certificate;
- .5 An annual list of ships recycled within the jurisdiction of that Party;
- .6 Information concerning violations of this Convention; and
- .7 Actions taken towards ships and Ship Recycling Facilities under the jurisdiction of that Party.

ARTICLE 13

Technical Assistance and Co-Operation

1. Parties undertake, directly or through the Organization and other international bodies, as appropriate, in respect of the safe and environmentally sound recycling of ships, to provide support for those Parties which request technical assistance:
 - .1 To train personnel;
 - .2 To ensure the availability of relevant technology, equipment and facilities;
 - .3 To initiate joint research and development programmes; and
 - .4 To undertake other actions aimed at the effective implementation of this Convention and of guidelines developed by the Organization related thereto.
2. Parties undertake to co-operate actively, subject to their national laws, regulations and policies, in the transfer of management systems and technology in respect of the safe and environmentally sound recycling of ships.

ARTICLE 14

Dispute Settlement

Parties shall settle any dispute between them concerning the interpretation or application of this Convention by negotiation or any other peaceful means agreed upon by them, which may include enquiry, mediation, conciliation, arbitration, judicial settlement, or resort to regional agencies or arrangements.

ARTICLE 15

Relationship with International Law and Other International Agreements

1. Nothing in this Convention shall prejudice the rights and obligations of any State under the United Nations Convention on the Law of the Sea, 1982, and under the customary international law of the sea.
2. Nothing in this Convention shall prejudice the rights and obligations of Parties under other relevant and applicable international agreements.

ARTICLE 16

Signature, Ratification, Acceptance, Approval and Accession

1. This Convention shall be open for signature by any State at the Headquarters of the Organization from 1 September 2009 to 31 August 2010 and shall thereafter remain open for accession by any State.
2. States may become Parties to this Convention by:
 - .1 Signature not subject to ratification, acceptance, or approval; or
 - .2 Signature subject to ratification, acceptance, or approval, followed by ratification, acceptance or approval; or
 - .3 Accession.
3. Ratification, acceptance, approval or accession shall be effected by the deposit of an instrument to that effect with the Secretary-General.
4. If a State comprises two or more territorial units in which different systems of law are applicable in relation to matters dealt with in this Convention, it may at the time of signature, ratification, acceptance, approval, or accession declare that this Convention shall extend to all its territorial units or only to one or more of them and may modify this declaration by submitting another declaration at any time.
5. A declaration under paragraph 4 shall be notified to the Secretary-General in writing and shall state expressly the territorial unit or units to which this Convention applies.
6. A State at the time it expresses its consent to be bound by this Convention shall declare whether it requires explicit or tacit approval of the Ship Recycling Plan before a ship may be recycled in its authorized Ship Recycling Facility(ies). This declaration may be revised thereafter by notification to the Secretary-General. Such revision shall specify the effective date of the revision.

ARTICLE 17

Entry into Force

1. This Convention shall enter into force 24 months after the date on which the following conditions are met:
 - .1 Not less than 15 States have either signed it without reservation as to ratification, acceptance or approval, or have deposited the requisite instrument of ratification, acceptance, approval or accession in accordance with Article 16;
 - .2 The combined merchant fleets of the States mentioned in paragraph 1.1 constitute not less than 40 % of the gross tonnage of the world's merchant shipping; and
 - .3 The combined maximum annual ship recycling volume of the States mentioned in paragraph 1.1 during the preceding 10 years constitutes not less than 3 % of the gross tonnage of the combined merchant shipping of the same States.

2. For States which have deposited an instrument of ratification, acceptance, approval or accession in respect of this Convention after the requirements for entry into force thereof have been met, but prior to the date of entry into force, the ratification, acceptance, approval or accession shall take effect on the date of entry into force of this Convention, or 3 months after the date of deposit of the instrument, whichever is the later date.
3. Any instrument of ratification, acceptance, approval or accession deposited after the date on which this Convention enters into force shall take effect 3 months after the date of deposit.
4. After the date on which an amendment to this Convention is deemed to have been accepted under Article 18, any instrument of ratification, acceptance, approval or accession deposited shall apply to the Convention, as amended.

ARTICLE 18

Amendments

1. This Convention may be amended by either of the procedures specified in the following paragraphs.
2. Amendments after consideration within the Organization:
 - .1 Any Party may propose an amendment to this Convention. A proposed amendment shall be submitted to the Secretary-General, who shall then circulate it to the Parties and Members of the Organization at least 6 months prior to its consideration.
 - .2 An amendment proposed and circulated as above shall be referred to the Committee for consideration. Parties, whether or not Members of the Organization, shall be entitled to participate in the proceedings of the Committee for consideration and adoption of the amendment.
 - .3 Amendments shall be adopted by a two-thirds majority of the Parties present and voting in the Committee, on condition that at least one-third of the Parties shall be present at the time of voting.
 - .4 Amendments adopted in accordance with subparagraph 3 shall be communicated by the Secretary-General to the Parties for acceptance.
 - .5 An amendment shall be deemed to have been accepted in the following circumstances:
 - .5.1 An amendment to an article of this Convention shall be deemed to have been accepted on the date on which two-thirds of the Parties have notified the Secretary-General of their acceptance of it.
 - .5.2 An amendment to the Annex shall be deemed to have been accepted at the end of a period to be determined by the Committee at the time of its adoption, which period shall not be less than 10 months after the date of adoption. However, if by that date more than one-third of the Parties

notify the Secretary-General that they object to the amendment, it shall be deemed not to have been accepted.

.6 An amendment shall enter into force under the following conditions:

- .6.1 An amendment to an article of this Convention shall enter into force, for those Parties that have declared that they have accepted it, 6 months after the date on which it is deemed to have been accepted in accordance with subparagraph .5.1.
- .6.2 An amendment to the Annex shall enter into force with respect to all Parties 6 months after the date on which it is deemed to have been accepted, except for any Party that has:
 - .6.2.1 Notified its objection to the amendment in accordance with subparagraph .5.2 and that has not withdrawn such objection; or
 - .6.2.2 Notified the Secretary-General, prior to the entry into force of such amendment, that the amendment shall enter into force for it only after a subsequent notification of its acceptance.
- .6.3 A Party that has notified an objection under subparagraph .6.2.1 may subsequently notify the Secretary-General that it accepts the amendment. Such amendment shall enter into force for such Party 6 months after the date of its notification of acceptance, or the date on which the amendment enters into force, whichever is the later date.
- .6.4 If a Party that has made a notification referred to in subparagraph .6.2.2 notifies the Secretary-General of its acceptance with respect to an amendment, such amendment shall enter into force for such Party 6 months after the date of its notification of acceptance, or the date on which the amendment enters into force, whichever is the later date.

3. Amendment by a Conference:

- .1 Upon the request of a Party concurred in by at least one-third of the Parties, the Organization shall convene a Conference of Parties to consider amendments to this Convention.
- .2 An amendment adopted by such a Conference by a two-thirds majority of the Parties present and voting shall be communicated by the Secretary-General to all Parties for acceptance.
- .3 Unless the Conference decides otherwise, the amendment shall be deemed to have been accepted and shall enter into force in accordance with the procedures specified in paragraphs 2.5 and 2.6 respectively.
- 4. Any Party that has declined to accept an amendment to the Annex shall be treated as a non-Party only for the purpose of application of that amendment.
- 5. Any notification under this Article shall be made in writing to the Secretary-General.
- 6. The Secretary-General shall inform the Parties and Members of the Organization of:

- .1 Any amendment that enters into force and the date of its entry into force generally and for each Party; and
- .2 Any notification made under this Article.

ARTICLE 19

Denunciation

1. This Convention may be denounced by any Party at any time after the expiry of 2 years from the date on which this Convention enters into force for that Party.
2. Denunciation shall be effected by written notification to the Secretary-General, to take effect 1 year after receipt or such longer period as may be specified in that notification.

ARTICLE 20

Depositary

1. This Convention shall be deposited with the Secretary-General, who shall transmit certified copies of this Convention to all States which have signed this Convention or acceded thereto.
2. In addition to the functions specified elsewhere in this Convention, the Secretary-General shall:
 - .1 Inform all States that have signed this Convention, or acceded thereto, of:
 - .1.1 Each new signature or deposit of an instrument of ratification, acceptance, approval or accession, together with the date thereof;
 - .1.2 The date of entry into force of this Convention;
 - .1.3 The deposit of any instrument of denunciation from this Convention, together with the date on which it was received and the date on which the denunciation takes effect; and
 - .1.4 Other declarations and notifications received pursuant to this Convention; and
 - .2 As soon as this Convention enters into force, transmit the text thereof to the Secretariat of the United Nations, for registration and publication in accordance with Article 102 of the Charter of the United Nations.

ARTICLE 21

Languages

This Convention is established in a single original in the Arabic, Chinese, English, French, Russian and Spanish languages, each text being equally authentic.

DONE AT HONG KONG, CHINA, this fifteenth day of May, two thousand and nine.
IN WITNESS WHEREOF the undersigned, being duly authorized by their
respective Governments for that purpose, have signed this Convention.

* * *

ANNEX

REGULATIONS FOR SAFE AND ENVIRONMENTALLY SOUND RECYCLING OF SHIPS

CHAPTER 1: GENERAL PROVISIONS

Regulation 1: Definitions

For the purposes of this Annex:

1. “Competent person” means a person with suitable qualifications, training, and sufficient knowledge, experience and skill, for the performance of the specific work. Specifically, a Competent person may be a trained worker or a managerial employee capable of recognizing and evaluating occupational hazards, risks, and employee exposure to potentially Hazardous Materials or unsafe conditions in a Ship Recycling Facility, and who is capable of specifying the necessary protection and precautions to be taken to eliminate or reduce those hazards, risks, or exposures. The Competent Authority may define appropriate criteria for the designation of such persons and may determine the duties to be assigned to them.
2. “Employer” means a natural or legal person that employs one or more workers engaged in Ship Recycling.
3. “Existing ship” means a ship which is not a new ship.
4. “New ship” means a ship:
 - .1 For which the building contract is placed on or after the entry into force of this Convention; or
 - .2 In the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 6 months after the entry into force of this Convention; or
 - .3 The delivery of which is on or after 30 months after the entry into force of this Convention.
5. “New installation” means the installation of systems, equipment, insulation, or other material on a ship after the date on which this Convention enters into force.
6. “Safe-for-entry” means a space that meets the following criteria:
 - .1 The oxygen content of the atmosphere and the concentration of flammable vapours are within safe limits;
 - .2 Any toxic materials in the atmosphere are within permissible concentrations; and
 - .3 Any residues or materials associated with the work authorized by the Competent person will not produce uncontrolled release of toxic materials

or an unsafe concentration of flammable vapours under existing atmospheric conditions while maintained as directed.

7. Safe-for-hot work means a space that meets the following criteria:

- .1 A safe, non-explosive condition, including gas-free status, exists for the use of electric arc or gas welding equipment, cutting or burning equipment or other forms of naked flame, as well as heating, grinding, or spark generating operations;
- .2 Safe-for-entry requirements of regulation 1.6 are met;
- .3 Existing atmospheric conditions will not change as a result of the hot work; and
- .4 All adjacent spaces have been cleaned, or inserted, or treated sufficiently to prevent the start or spread of fire.

8. “Shipowner” means the person or persons or company registered as the owner of the ship or, in the absence of registration, the person or persons or company owning the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the owner of the ship. However, in the case of a ship owned by a State and operated by a company which in that State is registered as the ship’s operator, “owner” shall mean such company. This term also includes those who have ownership of the ship for a limited period pending its sale or handing over to a Ship Recycling Facility.

9. “Site inspection” means an inspection of the Ship Recycling Facility confirming the condition described by the verified documentation.

10. “Statement of Completion” means a confirmatory statement issued by the Ship Recycling Facility that the Ship Recycling has been completed in accordance with this Convention.

11. “Tanker” means an oil tanker as defined in MARPOL Annex I or an NLS tanker as defined in MARPOL Annex II.

12. “Worker” means any person who performs work, either regularly or temporarily, in the context of an employment relationship including contractor personnel.

Regulation 2: General Applicability

Unless expressly provided otherwise, the design, construction, survey, certification, operation and recycling of ships shall be conducted in accordance with the provisions of this Annex.

Regulation 3: Relationship with Other Standards, Recommendations and Guidance

Parties shall take measures to implement the requirements of the regulations of this Annex, taking into account relevant and applicable standards, recommendations

and guidance developed by the International Labour Organization and the relevant and applicable technical standards, recommendations and guidance developed under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

CHAPTER 2: REQUIREMENTS FOR SHIPS

Part A: Design, Construction, Operation and Maintenance of Ships

Regulation 4: Controls of Ships' Hazardous Materials

In accordance with the requirements specified in Appendix 1 to this Convention each Party:

- .1 Shall prohibit and/or restrict the installation or use of Hazardous Materials listed in Appendix 1 on ships entitled to fly its flag or operating under its authority; and
- .2 Shall prohibit and/or restrict the installation or use of such materials on ships, whilst in its ports, shipyards, ship repair yards, or offshore terminals, and shall take effective measures to ensure that such ships comply with those requirements.

Regulation 5: Inventory of Hazardous Materials

1. Each new ship shall have on board an Inventory of Hazardous Materials. The Inventory shall be verified either by the Administration or by any person or organization authorized by it taking into account guidelines, including any threshold values and exemptions contained in those guidelines, developed by the Organization. The Inventory of Hazardous Materials shall be specific to each ship and shall at least:
 - .1 Identify as Part I, Hazardous Materials listed in Appendices 1 and 2 to this Convention and contained in ship's structure or equipment, their location and approximate quantities; and
 - .2 Clarify that the ship complies with regulation 4.
2. Existing ships shall comply as far as practicable with paragraph 1 not later than 5 years after the entry into force of this Convention, or before going for recycling if this is earlier, taking into account the guidelines developed by the Organization and the Organization's Harmonized System of Survey and Certification. The Hazardous Materials listed in Appendix 1, at least, shall be identified when the Inventory is developed. For existing ships a plan shall be prepared describing the visual/sampling check by which the Inventory of Hazardous Materials is developed, taking into account the guidelines developed by the Organization.

3. Part I of the Inventory of Hazardous Materials shall be properly maintained and updated throughout the operational life of the ship, reflecting new installations containing Hazardous Materials listed in Appendix 2 and relevant changes in ship structure and equipment, taking into account the guidelines developed by the Organization.
4. Prior to recycling the Inventory shall, in addition to the properly maintained and updated Part I, incorporate Part II for operationally generated wastes and Part III for stores, and be verified either by the Administration or by any person or organization authorized by it, taking into account the guidelines developed by the Organization.

Regulation 6: Procedure for Proposing Amendments to Appendices 1 and 2

1. Any Party may propose an amendment to Appendix 1 and/or Appendix 2 in accordance with this regulation. The proposed amendment shall be considered within the Organization under Article 18 paragraph 2 and this regulation.
2. When the Organization receives a proposal, it shall also bring the proposal to the attention of the United Nations and its Specialized Agencies, intergovernmental organizations having agreements with the Organization and non-governmental organizations in consultative status with the Organization and shall make it available to them.
3. The Committee shall establish a technical group in accordance with regulation 7 to review proposals submitted in accordance with paragraph 1 of this regulation.
4. The technical group shall review the proposal along with any additional data, including decisions adopted by other international bodies regarding their lists of materials or hazardous substances, submitted by any interested entity, and shall evaluate and report to the Committee whether the Hazardous Material in question is likely, in the context of this Convention, to lead to significant adverse effects on human health or the environment such that the amendment of Appendix 1 or Appendix 2 is warranted. In this regard:
 - .1 The technical group's review shall include:
 - .1.1 An evaluation of the association between the Hazardous Material in question and the likelihood, in the context of this Convention, that it will lead to significant adverse effects on human health or the environment based on the submitted data or other relevant data brought to the attention of the group;
 - .1.2 An evaluation of the potential risk reduction attributable to the proposed control measures and any other control measures that may be considered by the technical group;
 - .1.3 Consideration of available information on the technical feasibility of control measures;
 - .1.4 Consideration of available information on other effects arising from the introduction of such control measures relating to:

- The environment;
 - Human health and safety including that of seafarers and workers; and
 - The cost to international shipping and other relevant sectors.
- .1.5 Consideration of the availability of suitable alternatives to the Hazardous Material to be controlled, including a consideration of the potential risks of alternatives;
- .1.6 Consideration of the risks posed by the Hazardous Material during the recycling process; and
- .1.7 Consideration of suitable threshold values and any useful or necessary exemptions.
- .2 If the technical group finds that the Hazardous Material in question is likely, in the context of this Convention, to lead to significant adverse effects on human health or the environment, lack of full scientific certainty shall not be used as a reason to prevent the group from proceeding with an evaluation of the proposal.
- .3 The technical group's report shall be in writing and shall take into account each of the evaluations and considerations referred to in subparagraph .1, except that the technical group may decide not to proceed with the evaluations and considerations described in subparagraphs .1.2 to .1.7 if it determines after the evaluation in subparagraph .1.1 that the proposal does not warrant further consideration.
- .4 The technical group's report shall include, *inter alia*, a recommendation on whether international controls pursuant to this Convention are warranted on the Hazardous Material in question, on the suitability of the specific control measures suggested in the comprehensive proposal, or on other control measures which it believes to be more suitable.
5. The Committee shall decide whether to approve any proposal to amend Appendix 1 or Appendix 2, and any modifications thereto, if appropriate, taking into account the technical group's report. Any proposed amendment shall specify the application of the amendment for ships certified in accordance with this Convention before the entry into force of the amendment. If the report finds that the Hazardous Material in question is likely, in the context of this Convention, to lead to significant adverse effects on human health or the environment, lack of full scientific certainty shall not be used as a reason to prevent a decision from being taken to list a Hazardous Material in Appendix 1 or Appendix 2. A decision not to approve the proposal shall not preclude future submission of a new proposal with respect to a particular Hazardous Material if new information comes to light.

Regulation 7: Technical Groups

1. The Committee may establish one or more technical groups pursuant to regulation 6 as needed. The technical group may comprise representatives of the

Parties, Members of the Organization, the United Nations and its Specialized Agencies, intergovernmental organizations having agreements with the Organization, and non-governmental organizations in consultative status with the Organization, which should preferably include representatives of institutions and laboratories with expertise in environmental fate and effects of substances, toxicological effects, marine biology, human health, economic analysis, risk management, shipbuilding, international shipping, occupational health and safety or other fields of expertise necessary to objectively review the technical merits of a proposal.

2. The Committee shall decide on the terms of reference, organization, participation and operation of the technical groups. Such terms shall provide for protection of any confidential information that may be submitted. Technical groups may hold such meetings as required, but shall endeavour to conduct their work through written or electronic correspondence or other media as appropriate.
3. Only the representatives of Parties may participate in formulating any recommendation to the Committee pursuant to regulation 6. A technical group shall endeavour to achieve unanimity among the representatives of the Parties. If unanimity is not possible, the technical group shall communicate any minority views of such representatives.

Part B: Preparation for Ship Recycling

Regulation 8: General Requirements

Ships destined to be recycled shall:

- .1 Only be recycled at Ship Recycling Facilities that are:
 - .1 Authorized in accordance with this Convention; and
 - .2 Fully authorized to undertake all the ship recycling which the Ship Recycling Plan specifies to be conducted by the identified Ship Recycling Facility(ies);
- .2 Conduct operations in the period prior to entering the Ship Recycling Facility in order to minimize the amount of cargo residues, remaining fuel oil, and wastes remaining on board;
- .3 In the case of a tanker, arrive at the Ship Recycling Facility with cargo tanks and pump room(s) in a condition that is ready for certification as Safe-for-entry, or Safe-for-hot work, or both, according to national laws, regulations and policies of the Party under whose jurisdiction the Ship Recycling Facility operates;
- .4 Provide to the Ship Recycling Facility all available information relating to the ship for the development of the Ship Recycling Plan required by regulation 9;
- .5 Complete the Inventory required by regulation 5; and
- .6 Be certified as ready for recycling by the Administration or organization recognized by it, prior to any recycling activity taking place.

Regulation 9: Ship Recycling Plan

A ship-specific Ship Recycling Plan shall be developed by the Ship Recycling Facility(ies) prior to any recycling of a ship, taking into account the guidelines developed by the Organization. The Ship Recycling Plan shall:

- .1 Be developed taking into account information provided by the shipowner;
- .2 Be developed in the language accepted by the Party authorizing the Ship Recycling Facility, and if the language used is not English, French or Spanish, the Ship Recycling Plan shall be translated into one of these languages, except where the Administration is satisfied that this is not necessary;
- .3 Include information concerning *inter alia*, the establishment, maintenance, and monitoring of Safe-for-entry and Safe-for-hot work conditions and how the type and amount of materials including those identified in the Inventory of Hazardous Materials will be managed;
- .4 In accordance with the declaration deposited pursuant to Article 16.6, be either explicitly or tacitly approved by the Competent Authority authorizing the Ship Recycling Facility. The Competent Authority shall send written acknowledgment of receipt of the Ship Recycling Plan to the Ship Recycling Facility, Ship Owner and Administration within 3 working days of its receipt in accordance with regulation 24. Thereafter:
 - .1 Where a Party requires explicit approval of the Ship Recycling Plan, the Competent Authority shall send written notification of its decision to approve or deny the Ship Recycling Plan to the Ship Recycling Facility, Ship Owner and Administration; and
 - .2 Where a Party requires tacit approval of the Ship Recycling Plan, the acknowledgment of receipt shall specify the end date of a 14-day review period. The Competent Authority shall notify any written objection to the Ship Recycling Plan to the Ship Recycling Facility, Ship Owner and Administration within this 14-day review period. Where no such written objection has been notified, the Ship Recycling Plan shall be deemed to be approved.
- .5 Once approved in accordance with paragraph .4, be made available for inspection by the Administration, or any nominated surveyors or organization recognized by it; and
- .6 Where more than one Ship Recycling Facility is used, identify the Ship Recycling Facilities to be used and specify the recycling activities and the order in which they occur at each authorized Ship Recycling Facility.

Part C: Surveys and Certification

Regulation 10: Surveys

1. Ships to which this Convention applies shall be subject to the surveys specified below:

- .1 An initial survey before the ship is put in service, or before the International Certificate on Inventory of Hazardous Materials is issued. This survey shall verify that Part I of the Inventory required by regulation 5 is in accordance with the requirements of this Convention;
 - .2 A renewal survey at intervals specified by the Administration, but not exceeding 5 years. This survey shall verify that Part I of the Inventory of Hazardous Materials required by regulation 5 complies with the requirements of this Convention;
 - .3 An additional survey, either general or partial, according to the circumstances, may be made at the request of the shipowner after a change, replacement, or significant repair of the structure, equipment, systems, fittings, arrangements and material. The survey shall be such as to ensure that any such change, replacement, or significant repair has been made in the way that the ship continues to comply with the requirements of this Convention, and that Part I of the Inventory is amended as necessary; and
 - .4 A final survey prior to the ship being taken out of service and before the recycling of the ship has started. This survey shall verify:
 - .1 That the Inventory of Hazardous Materials as required by regulation 5.4 is in accordance with the requirements of this Convention taking into account the guidelines developed by the Organization;
 - .2 That the Ship Recycling Plan, as required by regulation 9, properly reflects the information contained in the Inventory of Hazardous Materials as required by regulation 5.4 and contains information concerning the establishment, maintenance and monitoring of Safe-for-entry and Safe-for-hot work conditions; and
 - .3 That the Ship Recycling Facility(ies) where the ship is to be recycled holds a valid authorization in accordance with this Convention.
2. Surveys of ships for the purpose of enforcement of the provisions of this Convention shall be carried out by officers of the Administration, taking into account the guidelines developed by the Organization. The Administration may, however, entrust the surveys either to surveyors nominated for the purpose or to organizations recognized by it.
 3. An Administration nominating surveyors or recognizing organizations to conduct surveys, as described in paragraph 2 shall, as a minimum, empower such nominated surveyors or recognized organizations to:
 - .1 Require a ship that they survey to comply with the provisions of this Convention; and
 - .2 Carry out surveys and inspections if requested by the appropriate authorities of a port State that is a Party.
 4. In every case, the Administration concerned shall be responsible to ensure the completeness and efficiency of the survey and shall undertake to ensure the necessary arrangements to satisfy this obligation.
 5. The initial and renewal surveys should be harmonized with the surveys required by other applicable statutory instruments of the Organization.

Regulation 11: Issuance and Endorsement of Certificates

1. An International Certificate on Inventory of Hazardous Materials shall be issued either by the Administration or by any person or organization authorized by it after successful completion of an initial or renewal survey conducted in accordance with regulation 10, to any ships to which regulation 10 applies, except for existing ships for which both an initial survey and a final survey are conducted at the same time, taking into account the guidelines developed by the Organization.
2. The International Certificate on Inventory of Hazardous Materials issued under paragraph 1, at the request of the shipowner, shall be endorsed either by the Administration or by any person or organization authorized by it after successful completion of an additional survey conducted in accordance with regulation 10.
3. Notwithstanding regulation 14.2 and the requirements of regulation 10.1.2, when the renewal survey is completed within 3 months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing certificate.
4. When the renewal survey is completed after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of expiry of the existing certificate.
5. When the renewal survey is completed more than 3 months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 5 years from the date of completion of the renewal survey.
6. If a certificate is issued for a period of less than 5 years, the Administration may extend the validity of the certificate beyond the expiry date to the maximum period specified in regulation 10.1.2.
7. If a renewal survey has been completed and a new certificate cannot be issued or placed on board the ship before the expiry date of the existing certificate, the person or organization authorized by the Administration may endorse the existing certificate and such a certificate shall be accepted as valid for a further period which shall not exceed 5 months from the expiry date.
8. If a ship at the time when a certificate expires is not in a port in which it is to be surveyed, the Administration may extend the period of validity of the certificate but this extension shall be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be surveyed and then only in cases where it appears proper and reasonable to do so. No certificate shall be extended for a period longer than 3 months, and a ship to which an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by virtue of such extension to leave that port without having a new certificate. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing certificate before the extension was granted.

9. A certificate issued to a ship engaged on short voyages which has not been extended under the foregoing provisions of this regulation may be extended by the Administration for a period of grace of up to 1 month from the date of expiry stated on it. When the renewal survey is completed, the new certificate shall be valid to a date not exceeding 5 years from the date of expiry of the existing certificate before the extension was granted.
10. In special circumstances, as determined by the Administration, a new certificate need not be dated from the date of expiry of the existing certificate as required by paragraph 4, 8 or 9 of this regulation. In these special circumstances, the new certificate shall be valid to a date not exceeding 5 years from the date of completion of the renewal survey.
11. An International Ready for Recycling Certificate shall be issued either by the Administration or by any person or organization authorized by it, after successful completion of a final survey in accordance with the provisions of regulation 10, to any ships to which regulation 10 applies, taking into account the authorization of the Ship Recycling Facility and the guidelines developed by the Organization.
12. A certificate issued under the authority of a Party shall be accepted by the other Parties and regarded for all purposes covered by this Convention as having the same validity as a certificate issued by them. Certificates shall be issued or endorsed either by the Administration or by any person or organization duly authorized by it. In every case, the Administration assumes full responsibility for the certificate.

Regulation 12: Issuance or Endorsement of a Certificate by Another Party

1. At the request of the Administration, another Party may cause a ship to be surveyed and, if satisfied that the provisions of this Convention are complied with, shall issue or authorize the issuance of a certificate to the ship, and where appropriate, endorse or authorize the endorsement of that certificate on the ship, in accordance with this Annex.
2. A copy of the certificate and a copy of the survey report shall be transmitted as soon as possible to the requesting Administration.
3. A certificate so issued shall contain a statement to the effect that it has been issued at the request of the Administration and it shall have the same force and receive the same recognition as a certificate issued by the Administration.
4. No certificate shall be issued to a ship entitled to fly the flag of a State which is not a Party.

Regulation 13: Form of the Certificates

The certificates shall be drawn up in an official language of the issuing Party, in the form set forth in Appendices 3 and 4. If the language used is not English, French

or Spanish, the text shall include a translation into one of these languages. The Administration may, however, issue the International Certificate on Inventory of Hazardous Materials drawn up only in an official language of the issuing Party to ships not engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties to this Convention and the International Ready for Recycling Certificate drawn up only in an official language of the issuing Party to ships recycled in Ship Recycling Facilities under the jurisdiction of the issuing Party.

Regulation 14: Duration and Validity of the Certificates

1. An International Certificate on Inventory of Hazardous Materials issued under regulation 11 or 12 shall cease to be valid in any of the following cases:
 - .1 If the condition of the ship does not correspond substantially with the particulars of the certificate, including where Part I of the Inventory of Hazardous Materials is not properly maintained and updated, reflecting changes in ship structure and equipment, in accordance with the guidelines developed by the Organization;
 - .2 Upon transfer of the ship to the flag of another State. A new certificate shall only be issued when the Party issuing the new certificate is fully satisfied that the ship is in compliance with the requirements of regulation 10. In the case of a transfer between Parties, if requested within 3 months after the transfer has taken place, the Party whose flag the ship was formerly entitled to fly shall, as soon as possible, transmit to the Administration copies of the certificates carried by the ship before the transfer and, if available, copies of the relevant survey reports;
 - .3 If the renewal survey is not completed within the periods specified under regulations 10.1 and 11; or
 - .4 If the certificate is not endorsed in accordance with regulation 11 or 12.
2. An International Certificate on Inventory of Hazardous Materials shall be issued for a period specified by the Administration, which shall not exceed 5 years.
3. An International Ready for Recycling Certificate shall be issued for a period specified by the Administration that shall not exceed 3 months.
4. An International Ready for Recycling Certificate issued under regulation 11 or 12 shall cease to be valid if the condition of the ship does not correspond substantially with the particulars of the certificate.
5. The International Ready for Recycling Certificate may be extended by the Administration or by any person or organization authorized by it for a single point to point voyage to the Ship Recycling Facility.

CHAPTER 3: REQUIREMENTS FOR SHIP RECYCLING FACILITIES

Regulation 15: Controls on Ship Recycling Facilities

1. Each Party shall establish legislation, regulations, and standards that are necessary to ensure that Ship Recycling Facilities are designed, constructed, and operated in a safe and environmentally sound manner in accordance with the regulations of this Convention.
2. Each Party shall establish a mechanism for authorizing Ship Recycling Facilities with appropriate conditions to ensure that such Ship Recycling Facilities meet the requirements of this Convention.
3. Each Party shall establish a mechanism for ensuring that Ship Recycling Facilities comply with the requirements of this chapter including the establishment and effective use of inspection, monitoring and enforcement provisions, including powers of entry and sampling. Such a mechanism may include an audit scheme to be carried out by the Competent Authority(ies) or an organization recognized by the Party, taking into account guidelines developed by the Organization, and the results of these audits should be communicated to the Organization.
4. Each Party shall designate one or more Competent Authorities and the single contact point to be used by the Organization, Parties to this Convention and other interested entities, for matters related to Ship Recycling Facilities operating within the jurisdiction of that Party.

Regulation 16: Authorization of Ship Recycling Facilities

1. Ship Recycling Facilities which recycle ships to which this Convention applies, or ships treated similarly pursuant to Article 3.4, shall be authorized by a Party taking into account the guidelines developed by the Organization.
2. The authorization shall be carried out by the Competent Authority(ies) and shall include verification of documentation required by this Convention and a site inspection. The Competent Authority(ies) may however entrust the authorization of Ship Recycling Facilities to organizations recognized by it.
3. The Party shall notify the Organization of the specific responsibilities and conditions of the authority delegated to the recognized organizations, for circulation to Parties. In every case, the Competent Authority(ies) retains full responsibility for the authorization issued.
4. The authorization shall be drawn up in the form set forth in Appendix 5. If the language used is not English, French or Spanish, the text shall include a translation into one of these languages.
5. The authorization shall be valid for a period specified by the Party but not exceeding 5 years. The Party shall identify the terms for which the authorization will be issued, withdrawn, suspended, amended and renewed, and communicate

these terms to the Ship Recycling Facilities. If a Ship Recycling Facility refuses inspection by the Competent Authority(ies) or the recognized organization operating on its/their behalf, the authorization shall be suspended or withdrawn.

6. If incidents or actions taken at the Ship Recycling Facility have the effect that the conditions for the authorization are no longer fulfilled, the Ship Recycling Facility shall inform the Competent Authority(ies). The Competent Authority(ies) may accordingly decide to suspend or withdraw the authorization, or require corrective actions by the Ship Recycling Facility.

Regulation 17: General Requirements

1. Ship Recycling Facilities authorized by a Party shall establish management systems, procedures and techniques which do not pose health risks to the workers concerned or to the population in the vicinity of the Ship Recycling Facility and which will prevent, reduce, minimize and to the extent practicable eliminate adverse effects on the environment caused by Ship Recycling, taking into account guidelines developed by the Organization.
2. Ship Recycling Facilities authorized by a Party shall, for ships to which this Convention applies, or ships treated similarly pursuant to Article 3.4:
 - .1 Only accept ships that:
 - .1 Comply with this Convention; or
 - .2 Meet the requirements of this Convention;
 - .2 Only accept ships which they are authorized to recycle; and
 - .3 Have the documentation of its authorization available if such documentation is requested by a shipowner that is considering recycling a ship at that Ship Recycling Facility.

Regulation 18: Ship Recycling Facility Plan

Ship Recycling Facilities authorized by a Party shall prepare a Ship Recycling Facility Plan. The Plan shall be adopted by the board or the appropriate governing body of the Recycling Company, and shall include:

- .1 A policy ensuring workers' safety and the protection of human health and the environment, including the establishment of objectives that lead to the minimization and elimination to the extent practicable of the adverse effects on human health and the environment caused by Ship Recycling;
- .2 A system for ensuring implementation of the requirements set out in this Convention, the achievement of the goals set out in the policy of the Recycling Company, and the continuous improvement of the procedures and standards used in the Ship Recycling operations;

- .3 Identification of roles and responsibilities for employers and workers when conducting Ship Recycling operations;
- .4 A programme for providing appropriate information and training of workers for the safe and environmentally sound operation of the Ship Recycling Facility;
- .5 An emergency preparedness and response plan;
- .6 A system for monitoring the performance of Ship Recycling;
- .7 A record-keeping system showing how Ship Recycling is carried out;
- .8 A system for reporting discharges, emissions, incidents and accidents causing damage, or with the potential of causing damage, to workers' safety, human health and the environment; and
- .9 A system for reporting occupational diseases, accidents, injuries and other adverse effects on workers' safety and human health, taking into account guidelines developed by the Organization.

Regulation 19: Prevention of Adverse Effects to Human Health and the Environment

Ship Recycling Facilities authorized by a Party shall establish and utilize procedures to:

- .1 Prevent explosions, fires, and other unsafe conditions by ensuring that Safe-for-hot work conditions and procedures are established, maintained and monitored throughout Ship Recycling;
- .2 Prevent harm from dangerous atmospheres and other unsafe conditions by ensuring that Safe-for-entry conditions and procedures are established, maintained, and monitored in ship spaces, including confined spaces and enclosed spaces, throughout Ship Recycling;
- .3 Prevent other accidents, occupational diseases and injuries or other adverse effects on human health and the environment; and
- .4 Prevent spills or emissions throughout Ship Recycling which may cause harm to human health and/or the environment, taking into account guidelines developed by the Organization.

Regulation 20: Safe and Environmentally Sound Management of Hazardous Materials

- 1. Ship Recycling Facilities authorized by a Party shall ensure safe and environmentally sound removal of any Hazardous Material contained in a ship certified in accordance with regulation 11 or 12. The person(s) in charge of the recycling operations and the workers shall be familiar with the requirements of this Convention relevant to their tasks and, in particular, actively use the Inventory of Hazardous Materials and the Ship Recycling Plan, prior to and during the removal of Hazardous Materials.

2. Ship Recycling Facilities authorized by a Party shall ensure that all Hazardous Materials detailed in the Inventory are identified, labelled, packaged and removed to the maximum extent possible prior to cutting by properly trained and equipped workers, taking into account the guidelines developed by the Organization, in particular:
 - .1 Hazardous liquids, residues and sediments;
 - .2 Substances or objects containing heavy metals such as lead, mercury, cadmium and hexavalent chromium;
 - .3 Paints and coatings that are highly flammable and/or lead to toxic releases;
 - .4 Asbestos and materials containing asbestos;
 - .5 PCB and materials containing PCBs, ensuring that heat inducing equipment is avoided during such operations;
 - .6 CFCs and halons; and
 - .7 Other Hazardous Materials not listed above and that are not a part of the ship structure.
3. Ship Recycling Facilities authorized by a Party shall provide for and ensure safe and environmentally sound management of all Hazardous Materials and wastes removed from the ship recycled at that Ship Recycling Facility. Waste management and disposal sites shall be identified to provide for the further safe and environmentally sound management of materials.
4. All wastes generated from the recycling activity shall be kept separate from recyclable materials and equipment, labelled, stored in appropriate conditions that do not pose a risk to the workers, human health or the environment and only transferred to a waste management facility authorized to deal with their treatment and disposal in a safe and environmentally sound manner.

Regulation 21: Emergency Preparedness and Response

Ship Recycling Facilities authorized by a Party shall establish and maintain an emergency preparedness and response plan. The plan shall be made having regard to the location and environment of the Ship Recycling Facility, and shall take into account the size and nature of activities associated with each Ship Recycling operation. The plan shall furthermore:

- .1 Ensure that the necessary equipment and procedures to be followed in the case of an emergency are in place, and that drills are conducted on a regular basis;
- .2 Ensure that the necessary information, internal communication and coordination are provided to protect all people and the environment in the event of an emergency at the Ship Recycling Facility;
- .3 Provide for communication with, and information to, the relevant Competent Authority(ies), the neighbourhood and emergency response services;
- .4 Provide for first-aid and medical assistance, fire-fighting and evacuation of all people at the Ship Recycling Facility, pollution prevention; and

- .5 Provide for relevant information and training to all workers of the Ship Recycling Facility, at all levels and according to their competence, including regular exercises in emergency prevention, preparedness and response procedures.

Regulation 22: Worker Safety and Training

1. Ship Recycling Facilities authorized by a Party shall provide for worker safety by measures including:
 - .1 Ensuring the availability, maintenance and use of personal protective equipment and clothing needed for all Ship Recycling operations;
 - .2 Ensuring that training programmes are provided to enable workers to safely undertake all Ship Recycling operations they are tasked to do; and
 - .3 Ensuring that all workers at the Ship Recycling Facility have been provided with appropriate training and familiarization prior to performing any Ship Recycling operation.
2. Ship Recycling Facilities authorized by a Party shall provide and ensure the use of personal protective equipment for operations requiring such use, including:
 - .1 Head protection;
 - .2 Face and eye protection;
 - .3 Hand and foot protection;
 - .4 Respiratory protective equipment;
 - .5 Hearing protection;
 - .6 Protectors against radioactive contamination;
 - .7 Protection from falls; and
 - .8 Appropriate clothing.
3. Ship Recycling Facilities authorized by a Party may co-operate in providing for training of workers. Taking into account the guidelines developed by the Organization, the training programmes set forth in paragraph 1.2 of this regulation shall:
 - .1 Cover all workers including contractor personnel and employees in the Ship Recycling Facility;
 - .2 Be conducted by Competent persons;
 - .3 Provide for initial and refresher training at appropriate intervals;
 - .4 Include participants' evaluation of their comprehension and retention of the training;
 - .5 Be reviewed periodically and modified as necessary; and
 - .6 Be documented.

Regulation 23: Reporting on Incidents, Accidents, Occupational Diseases and Chronic Effects

1. Ship Recycling Facilities authorized by a Party shall report to the Competent Authority(ies) any incident, accident, occupational diseases, or chronic effects

causing, or with the potential of causing, risks to workers safety, human health and the environment.

2. Reports shall contain a description of the incident, accident, occupational disease, or chronic effect, its cause, the response action taken and the consequences and corrective actions to be taken.

CHAPTER 4: REPORTING REQUIREMENTS

Regulation 24: Initial Notification and Reporting Requirements

1. A shipowner shall notify the Administration in due time and in writing of the intention to recycle a ship in order to enable the Administration to prepare for the survey and certification required by this Convention.
2. A Ship Recycling Facility when preparing to receive a ship for recycling shall notify in due time and in writing its Competent Authority(ies) of the intent. The notification shall include at least the following ship details:
 - .1 Name of the State whose flag the ship is entitled to fly;
 - .2 Date on which the ship was registered with that State;
 - .3 Ship's identification number (IMO number);
 - .4 Hull number on new-building delivery;
 - .5 Name and type of the ship;
 - .6 Port at which the ship is registered;
 - .7 Name and address of the Shipowner as well as the IMO registered owner identification number;
 - .8 Name and address of the company as well as the IMO company identification number;
 - .9 Name of all classification society(ies) with which the ship is classed;
 - .10 Ship's main particulars (Length overall (LOA), Breadth (Moulded), Depth (Moulded), Lightweight, Gross and Net tonnage, and engine type and rating);
 - .11 Inventory of Hazardous Materials; and
 - .12 Draft ship recycling plan for approval pursuant to regulation 9.
3. When the ship destined to be recycled has acquired the International Ready for Recycling Certificate, the Ship Recycling Facility shall report to its Competent Authority(ies) the planned start of the Ship Recycling. The report shall be in accordance with the reporting format in Appendix 6, and shall at least include a copy of the International Ready for Recycling Certificate. Recycling of the ship shall not start prior to the submission of the report.

Regulation 25: Reporting upon Completion

When the partial or complete recycling of a ship is completed in accordance with the requirements of this Convention, a Statement of Completion shall be issued by

the Ship Recycling Facility and reported to its Competent Authority(ies). This report must be compiled as shown in Appendix 7. The Competent Authority(ies) shall send a copy of the Statement to the Administration which issued the International Ready for Recycling Certificate for the ship. The Statement shall be issued within 14 days of the date of partial or completed Ship Recycling in accordance with the Ship Recycling Plan and shall include a report on incidents and accidents damaging human health and/or the environment, if any.

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At present, *Prof. Dr. Dr. h.c. Jürgen Basedow* and *Prof. Dr. Ulrich Magnus* serve as speakers of the Research School.