

EUROPEAN COMMISSION

> Brussels, 28.6.2013 SWD(2013) 237 final

COMMISSION STAFF WORKING DOCUMENT

Impact Assessment - Part 2

Accompanying the document

Proposal for a Regulation of the European Parliament and of the Council

on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport and amending Regulation (EU) N° 525/2013

{COM(2013) 480 final} {SWD(2013) 236 final}

ANNEX I - OVERVIEW OF THE SHIPPING SECTOR

In 2010, the Commission set up a contract with IHS Fairplay to have an overview of ships calling into EU ports. The full study can be found on Commission's website¹. However, this annex aims to provide an overview of the results of this study.

1. ORGANISATION OF THE SUPPLY CHAIN OF THE SHIPPING SECTOR

The supply chain of the shipping sector is organised around the follow main actors:

- the ship-owner who owns the vessels
- the ship operator who operates the vessel
- the charterer who rents the vessels (with or without the crew)
- the shipper who provides the cargo

Other actors may also take part of this supply chain, such as the ship-broker who negotiates the use of a ship between ship-owners and charterer or the ship-manager who performs the technical operation of the ship but not its commercial management. These actors may not be distinct. For example, a ship operator can own its ships or a ship-operator can charter a ship.

Different type of chartering contract exists²:

- A voyage charter is the hiring of a vessel and crew for a voyage between a load port and a discharge port. The charterer pays the vessel owner on a per-ton or lump-sum basis. The owner pays the port costs (excluding stevedoring), fuel costs and crew costs. The payment for the use of the vessel is known as freight. A voyage charter specifies a period, known as laytime, for unloading the cargo. If laytime is exceeded, the charterer must pay demurrage. If laytime is saved, the charter party may require the shipowner to pay despatch to the charterer.
- A contract of affreightment is a contract similar to a voyage charter, but ship-owner undertakes to carry a number of cargoes within a specified period of time on a specified route. Agreed frequency of cargoes may require more than one ship.
- A time charter is the hiring of a vessel for a specific period of time; the owner still
 manages the vessel but the charterer selects the ports and directs the vessel where to go.
 The charterer pays for all fuel the vessel consumes, port charges, and a daily hire to the
 owner of the vessel.
- A trip time charter is a comparatively short time charter agreed for a specified route only (as opposed to the standard time charter where charterer is free to employ the vessel within agreed trading areas).
- A bareboat charter or demise charter is an arrangement for the hiring of a vessel whereby no administration or technical maintenance is included as part of the agreement. The charterer obtains possession and full control of the vessel along with the legal and financial responsibility for it. The charterer pays for all operating expenses, including fuel, crew, port expenses or hull insurance.

¹ http://ec.europa.eu/clima/policies/transport/shipping/docs/ships_visiting_en.pdf

² http://maritimeknowhow.com/

2. SHIPPING SEGMENTS³

a. <u>General data</u>

Table 1.1: Ship types in the worth field in 2010									
Ship type	Number of ships	Ship type	Number of ships						
Oil tankers	7.568	Container	4.928						
Chemical tankers	5.071	Vehicle	5.784						
LPG	1.199	Roro	1.793						
LNG	364	Ferry	6.354						
Other tanker	399	Cruise	5.525						
Bulker	9.100	Yacht	1.523						
General cargo	16.486	Offshore	8.027						
Other dry	2.326	Service	18.406						
	TOTAL								

Table I.1: Ship types in the world fleet in 2010

World fleet, perc	Oil	Chem			Other		General	Other									
		tanker				Bulkor		drv	Container	Vehicle	Poro	Forny	Cruise	Vacht	Offebore	Service	Tota
	tanker	lanker	LFG	LING	tanker	Duiker		ury	Container	venicie	NOTO	reny	Gruise		Unshore	Service	
	0%	4.0/	4.0/	0%	40/	0%	0%		0%		4.0/	0%	0%	0%	0%	0%	0%
BELGIUM	0% 0%	1% 0%	1%	2%	1% 1%	0%			0%		1% 0%	0% 0%	0%	0%	0%		
	1%		0%	4.0/		3%		0%	4%	4.0/			4.0/	0%			
CYPRUS		1%	1%	1%	1%					1%		1%	1%		1%		
	1%	2%	0%	1%	1%	0%		0%	2%		1%	1%	0%	0%	1%	1%	
	0%	0%	00/			00/	0%	00/	00/	00/	20/	0%		00/	00/	0%	
	0%	0%	0%	0%		0%		0%	0%	0%		1%	1%	0%	0%	1%	
FRANCE	0%	1%	1%	1%		0%		1%	0%	00/	2%	2%	1%	0%	1%		
GERMANY	0%	1%	1%	0%	0%	0%		0%	6%	0%		2%	0%	0%	0%	1%	
GREECE	5%	2% 0%	1%	2%	3%	3%		0% 0%	1%		2%	5%	2%	3%	0%	1%	
	0%		0%	0%	0%	0%	0%		0%	0%	40%	0%	0%	0%			
TALY	1%	3%	2%	1%	6%	1%		0%	0%	4%		6%	4%	3%	1%		
	0%	0%					0%	0%	0%		0%	0%			0%	0%	
	0%	00/				00/	0%	0%	0%		0%	0%	00/	50/	0%		
	0%	0%	0%	0%	0%	0%		0%	0%	0%	1%	0%	0%	5%	0%	0%	
MALTA	2%	6%	3%	1%	1%	6%		0%	2%	2%		1%	9%	4%	0%		
NETHERLANDS	0%	5%	2%	0%	1%	0%		1%	1%		2%	0%	5%	2%	0%	1%	
POLAND	0%	0%					0%					1%			0%		
PORTUGAL	0%	0%	1%		0%	0%		0%	0%	1%		1%	3%	2%	0%	0%	
ROMANIA	0%	0%					0%				0%	0%		0%	0%		
SLOVAKA							0%	0%								0%	
SLOVENIA					4.07		00/		00/	10/	10/			4.07	00/	0%	
SPAIN	0%	0%	0%	2%	1%	0%		0%	0%	1%		1%	0%	1%	0%		
SWEDEN	0%	0%			1%	0%		0%		3%	4%	2%	0%	0%	0%		
UNITED KINGDOM	1%	1%	1%		1%	0%		0%	4%	3%	3%	2%	1%	14%	3%		
ICELAND	0%					0%						0%			0%		
NORWAY	1%	3%	3%	3%	1%	1%		1%	0%	6%	1%	6%	0%	0%	4%	1%	_
EEA TOTAL	13%	28%	15%	15%	18%	15%		6%	22%	21%		33%	28%	34%	12%		
RUSSIA	4%	1%			3%	1%		4%	0%		2%	1%	2%	0%	1%		
OTHER EUROPE	2%	3%	3%	2%	1%	1%		1%	1%	1%		2%	1%	9%	2%	1%	
NORTH AFRICA	1%	0%	1%	2%	5%	0%		0%	0%		3%	1%	1%	0%	1%		
MEDITERRANEAN	2%	2%	1%		3%	1%		1%	1%	1%		4%	0%	1%	0%	1%	
BL.SEA	1%	0%	0%		2%	0%		1%	0%	0%		2%	1%	0%	2%		
CANADA	0%	0%				1%		0%	0%		1%	2%	0%	1%	0%	1%	
JSA	1%	1%			0%	1%		1%	2%	3%		3%	5%	3%	15%	9%	
BAHAMAS	3%	2%	2%	14%	1%	3%		5%	1%	8%		1%	18%	1%	2%	0%	
BERMUDA	0%	0%	0%	10%		0%		0%	0%		0%	0%	5%	2%	0%	0%	
PANAMA	8%	12%	13%	10%	9%	27%	8%	12%	15%	37%	14%	2%	8%	1%	9%	3%	9%
OTHER AMERICAS	6%	3%	5%		5%	4%	11%	9%	10%	1%	10%	4%	17%	37%	12%	7%	89
CHINA	8%	5%	8%	1%	8%	15%	7%	6%	10%	4%	2%	7%	0%	0%	3%	4%	79
IAPAN	8%	9%	11%	9%	7%	5%	8%	0%	0%	7%	7%	8%	1%		0%	7%	6
SOUTH KOREA	3%	4%	5%	1%	3%	3%	2%	1%	1%	1%	1%	3%			0%	3%	29
OTHER ASIA	23%	13%	25%	14%	21%	9%	22%	34%	13%	11%	8%	19%	3%	2%	20%	28%	219
	14%	14%	10%	22%	8%	12%	9%	16%	22%	5%	7%	5%	6%	7%	16%	6%	119
REST OF WORLD																	
REST OF WORLD Unknow n	5%	2%	2%		6%	2%	7%	4%	1%	1%	3%	5%	2%	2%	4%	6%	4%

³ Source: IHS Fairplay, 2010 and 2012

	Oil	Chem			Other		General	Other	a		_	_	a .		or	<u> </u>	
COUNTRY	tanker	tanker	LPG	LNG	tanker	Bulker	Cargo	dry	Container	Vehicle	Roro	Ferry	Cruise	Yacht	Offshore	Service	Total
AUSTRIA														0%			0
BELGIUM	2%	1%				0%			0%		8%		0%	0%			
BULGARIA	1%	0%			0%				0%		0%				0%		0
CYPRUS	2%	3%	3%		0%	6%	3%	1%	11%	5%	3%	3%	1%		2%	5 1%	4%
DENMARK	3%	8%	0%	1%	9%	0%	2%	1%	3%		4%	9%			6%	8%	6%
ESTONIA	2%	0%					0%					2%				1%	19
FINLAND	1%	1%	0%			1%	2%	1%	1%	4%	9%	2%	1%	1%		3%	2%
FRANCE	2%	3%	0%	8%		0%	0%		1%		1%	5%	1%		0%	3%	3%
GERMANY	4%	2%	2%			1%	3%	1%	10%		2%	5%	0%	2%	0%	9%	4%
GREECE	15%	5%	2%	2%	4%	4%	1%	1%	1%		3%	5%	1%	1%	0%	3%	4%
IRELAND		0%					1%		0%		0%	0%			0%	1%	0%
ITALY	2%	10%	9%	11%	22%	3%	1%	4%	0%	15%	5 8%	15%	16%	2%	3%	4%	10%
LATVIA	0%	0%					0%				0%	0%				0%	0%
LITHUANIA							1%	0%	0%		2%	0%				0%	
LUXEMBOURG		1%					0%		1%		8%		0%	1%	1%	0%	0%
MALTA	8%	13%	5%		2%	11%	6%		4%	5%	4%	2%	16%	4%	2%	2%	49
NETHERLANDS	1%	8%	11%	6%	20%	0%	16%		7%		8%	1%	5%	8%	5%	16%	
POLAND	2%	0%					0%				0%	0%		1%		2%	
PORTUGAL	0%	2%			2%	2%			0%	7%			6%				
ROMANIA	0%	0%			_ / *							0%	- / -		0%		
SLOVAKIA	0,0	0,0					0%	0%				0,0			0,0	0%	
SLOVENIA							070	0,0								0%	
SPAIN	1%	1%	1%	7%	4%	3%	1%	0%	0%	5%	2%	5%		1%	1%		
SWEDEN	6%	3%		7 70	8%				070	3%			0%				
UNITED KINGDOM	8%	2%			0 /0	2%	3%		8%				2%				
ICELAND	0%	2 /0	170			0%	570	070	070	2/	5 7/0	0%	2 /0	1170	0%		,
NORWAY	3%	6%	4%	4%	20%		4%	3%		4%	2%		0%	0%			- /
									400/								
EEA TOTAL RUSSIA	63% 0%	71% 1%		41%	91% 0%				46% 0%		6 <mark>81%</mark> 0%						
				40/									0%				
OTHER EUROPE	9%	9%				2%	9%		3%					11%			
NORTH AFRICA	0%	0%				0%			0%		2%			004	0%		
MEDITERRANEAN	0%	1%			0%				2%					0%			
BL.SEA	0%	0%			0%				0%	0%)	0%			0%		
CANADA	0%	0.01				0%	0%					0%			0%		
USA	0%	0%				0%			1%			0%		0%			
BAHAMAS	7%	2%							0%				27%				- /
BERMUDA	0%	0%		14%		0%		3%	1%		0%						19
PANAMA	2%	3%							11%				10%				
OTHER AMERICAS	3%	3%			1%				18%				1%	42%			
CHINA	1%	1%	2%		0%				3%						0%		- /
JAPAN	0%					0%	0%		0%	2%	5	0%	0%			0%	0%
SOUTH KOREA	0%	0%				0%	0%		0%			0%					0%
000mmond (2%	2%	15%	2%	1%	3%	0%	2%	2%	8%	5 1%	0%		1%	3%	0%	1%
OTHERASIA	270				00/	450/	5%	19%	14%	2%	2%	0%	4%	4%	3%	1%	3%
	9%	8%	11%	21%	3%	15%	570	1970	1470	2/0	2/0	0 /0		- 70	570	0 1/0	
OTHER ASIA		<mark>8%</mark> 0%		21%	3%	0%			0%				470	0%			

 Table I. 3: Percentage of calls in an EEA port by flag and ship type, all ships, 2010

 Share of port calls in the EEA, by vessel type and flag

b. <u>CO2 emissions and efficiency</u>

Table I.4: CO2 emissions on EU related routes in 2010 (tCO2)

	from EU27	to EU27	intra EU27	Domestic	TOTAL
01 Oil tanker	5.608.190	6.011.682	2.743.508	1.411.465	15.774.845
02 Chemical tanker	4.286.408	4.515.222	5.067.885	2.014.793	15.884.307
03 LPG	614.856	565.809	668.851	419.477	2.268.994
04 LNG	2.227.206	2.242.901	285.072	473.119	5.228.299
05 Other tanker	165.863	148.205	67.283	49.631	430.982
06 Bulker	8.853.597	9.793.108	2.693.337	941.744	22.281.786
07 General cargo	3.666.037	3.664.151	5.036.541	1.187.354	13.554.083
08 Other dry	1.409.449	1.435.208	1.264.408	517.024	4.626.089
09 Container	20.797.067	22.765.949	10.052.641	1.546.880	55.162.536
10 Vehicle	1.638.468	1.930.954	1.888.082	193.478	5.650.981
11 Roro	840.470	908.774	3.199.086	1.307.121	6.255.451
12 Ferry	1.473.840	1.472.736	8.461.109	8.452.329	19.860.014
13 Cruise	1.549.139	1.427.755	3.025.106	1.055.131	7.057.131
14 Yacht	229.548	274.957	172.867	177.735	855.107
15 Offshore	392.762	414.958	225.212	857.630	1.890.562
16 Service	253.733	224.546	299.617	1.477.012	2.254.908
17 Fishing	81.085	93.499	59.044	180.574	414.202
18 Miscellaneous	35.245	41.404	26.239	73.748	176.636
TOTAL	54.122.962	57.931.819	45.235.888	22.336.244	179.626.912

Table I.5 : Projection of CO2 emissions per type of ship on EU related routes

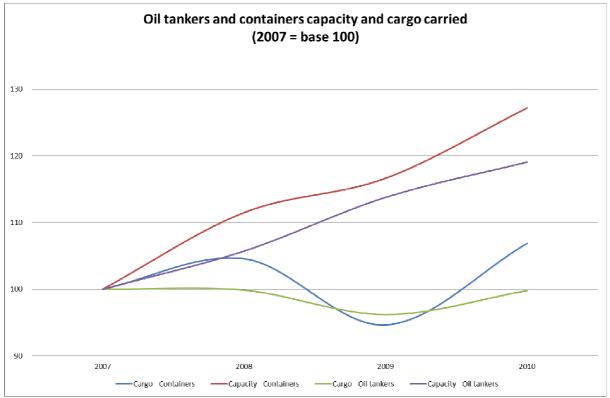
	2005	2010	2020	2020			2050	
	MtCO2	MtCO2	MtCO2	% / 2005	MtCO2	% / 2005	MtCO2	% / 2005
Liquid bulk	44.926.957	39.587.426	40.557.367	-10%	39.669.218	-12%	38.619.315	-14%
Dry bulk	26.276.027	22.281.786	26.948.113	3%	29.354.200	12%	35.922.703	37%
General cargo	23.612.709	18.180.172	22.630.302	-4%	25.093.387	6%	29.812.802	26%
Container	55.391.337	55.162.536	67.662.971	22%	72.897.514	32%	94.763.227	71%
Roro & Vehicle roro	14.121.212	11.906.432	13.832.126	-2%	14.847.546	5%	20.256.208	43%
Ferry	22.694.635	19.860.014	23.862.420	5%	26.237.304	16%	32.056.787	41%
Non-cargo	8.367.176	12.648.546	14.283.027	71%	15.311.497	83%	19.197.403	129%
TOTAL	195.390.053	179.626.912	209.776.325	7%	223.410.666	14%	270.628.444	39%

Table I.6: Projected fuel efficiency (Mtoe/Mtonnes carried) under the baseline scenario

		2010	2015	2020	2025	2030
Fuel consumption	Mtoe	59,44	63,30	66,12	70,92	77,13
Seaborne trade	Mt	2234,31	2515,14	2737,18	2972,34	3229,06
Fuel efficiency	Mtoe/Mt	0,027	0,025	0,024	0,024	0,024
Improvement compared to 2010		-	-5%	-9%	-10%	-10%

c. **Overcapacity**

Figure I.1: Overcapacity in oil tankers and containerships



Source: Word fleet monitor 2011

ANNEX II - SMES IN THE SHIPPING SECTOR

According to EU recommendation n°2003/361, an SME can be defined according to the following criteria:

Company category	Employees	Turnover	or	Balance sheet total
Medium-sized	< 250	≤€ 50 m	1	{€€43 m
Small	< 50	≤€ 10 m	<	{€ 10 m
Micro	< 10	≤€2 m	<	{€€2 m

These ceilings apply to the figures for individual firms only. A firm which is part of larger grouping may need to include employee/turnover/balance sheet data from that grouping too.

According to the table below and considering the threshold mentioned above, 97% of maritime transport enterprises can be considered as SMEs⁴.

					<u> </u>				
Nb of employees	Total	>250	50-249	20-49	10-19	2-9	1		
	Turnover (M€)								
Sea and coastal passenger transport	С	11962,78	2329	1312,11	С	630,77	707,77		
Sea and coastal freight transport	С	47329,89	17161,24	5416,93	С	4833,92	7163,22		
Nb of enterprises									
Sea and coastal passenger transport	5481	51	92	141	222	1990	2985		
Sea and coastal freight transport	5672	53	216	414	589	2000	2400		
	tur	nover / ent	erprises						
Sea and coastal passenger transport	n/a	235	25	9	n/a	0	0		
Sea and coastal freight transport	n/a	893	79	13	n/a	2,4	3,0		
SME threshold (turnover/enterprise)			50	10	10	2	2		

Table II.1: turnover, number of enterprises and turnover per enterprise per size of enterprises

Source: Eurostat, 2010; (c): confidential data

These statistics include all companies operating ships, including for example a company operating a single route to a small island close to the coast. However, the size of a company is linked to the size of ships operated by the company and a ship of more than 400 GT requires more than 9 people to be operated. This means that, as the regulation intends to apply to ships above 400GT at the lowest, 87% of SMEs in the shipping sector will not be concerned by the regulation. If the size threshold is set at 5000GT⁵, at least 99% of SMEs in the shipping sector will not be concerned by the regulation.

⁴ According to the turnover threshold, only maritime freight transport enterprises with less than 50 employees can be considered as SMEs ⁵ As a ship above 5000GT will require more than 50 people to be operated.

Example of ferry of around 4000GT

Example of ferry around 400GT





Having said that, the thresholds used to define SMEs may not be relevant to define a small enterprise in maritime transport. The number of ships is a more relevant indicator to consider the size of the company. In 2010, around 8000 ships above 400GT⁶⁷ were operated by 1778 EU enterprises. This means that on average, each enterprise operates 4 to 5 ships. However, the top 5 container vessels operators operated together more than 1756 ships in 2010. So, without considering theses enterprises, the number of ship per EU operator is between 3 to 4 ships.

Operating 3 to 4 ships only does not mean that the ship operator comply with the SME definition mention above. For example, SeaFrance, a former ferry company, had 4 ships, but 1850 employees due to the size of its ships (mainly above 30,000GT).

For that reason, the administrative burden mentioned in annex XIII have been calculated on a ship basis, having in mind that, if a company operates several ships, it can benefit from economies of scale.

The fuel savings and the increase of investment and capital costs mentioned in section 5 of the impact assessment are not related to the size of the companies. The abatement technologies considered are related to the type of ships and not to the size of ship operators. Having said that, the fewest the number of ships is operated by an enterprise, the more reluctant this enterprise will be to implement innovative low carbon technology. Indeed, a company operating a small number of ships cannot afford to test technologies on one of its ships, facing the risk to jeopardize the operation of this ship and the overall profitability of the company. In this context, getting accurate information on the abatement potential of low technology and the operational impacts of each of these technologies are key to ensure their uptake.

⁶ IHS Fairplay 2010

⁷ Note that, in 2010, 18400 ships above 400GT have called in EU ports.

ANNEX III - SUMMARY OF RESULTS OF THE ON-LINE CONSULTATION

Public consultation on "Including maritime transport emissions in the EU's greenhouse gas reduction commitment"

Summary of the contributions received

11 February 2013

Please note that this summary of the consultation does not express the position of the Commission.

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1. INTRODUCTION

As part of the preparation of the impact assessment of a possible Commission proposal to address GHG emissions of the maritime sector⁸, the Commission ran an internet public consultation for 12 weeks from 19 January until 12 April 2012.

This consultation sought opinions from stakeholders and experts in the field of shipping and climate change with a view to getting additional information on the shape of a possible Commission proposal. All European citizens, organised stakeholders, industries, institutions, NGOs and public authorities of EU countries were invited to contribute to this consultation.

This consultation supplements several stakeholders meetings held throughout 2011, including 3 two-day meetings in the context of a working group (WG6) established under the European Climate Change Program II (ECCPII)⁹ and 3 meetings in the context of a High Level Platform co-chaired by Vice President Kallas and Commissioner Hedegaard. The outcome of these stakeholder meetings was used as input for the on-line consultation. All documents from the ECCP meetings are available on the Commission's website¹⁰.

2. STRUCTURE OF THE QUESTIONNAIRE

The questionnaire used open questions or multiple choice questions. With the exception of certain selected questions, answers were not mandatory. The questionnaire reflected the discussion with stakeholders at the time of its preparation. Emphasis on specific issues may have happened after the publication of the questionnaire.

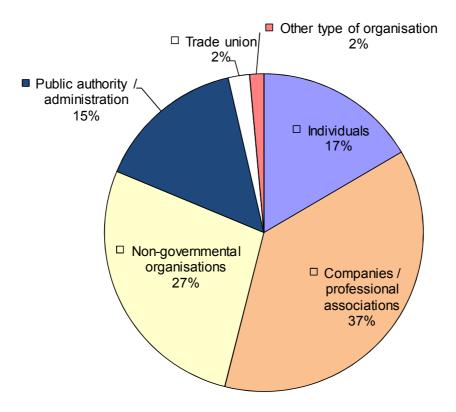
3. CHARACTERISATION OF THE RESPONDENTS

All in all, 139 contributions were received either directly online or through the support mail address (<u>CLIMA-ECCP-SHIPS@EC.EUROPA.EU</u>). Some contributors sent multiple submissions. The most represented contributors were companies or professional associations (37%), followed by non-governmental organisations (28%), individuals (17%) and public authorities or public administrations (14%).

⁸ http://ec.europa.eu/atwork/programmes/index_en.htm

⁹ http://ec.europa.eu/clima/policies/eccp/second/stakeholder/index_en.htm

¹⁰ http://ec.europa.eu/clima/policies/transport/shipping/index_en.htm



Respondent profile

It is noted that some ship-owners or ship-operators associations were registered as nongovernmental associations and some ports were registered as public authorities. The table below gives an overview of the contributors, grouped in accordance to their field of competency:

	Number	% of total
Ship-owners*	36	26%
Charterers/ Ship operators*	13	9%
Shippers	12	9%
Service providers/ Equipment manufacturers	9	7%
Ports	6	4%
Trade Unions	3	2%
EU Regional public authority	4	3%
EU National public authority	9	6%
Non-EU National public authority	4	3%
Environmental and social NGO	29	21%
Individuals	23	17%
Others	1	1%

* 10 entities considered as ship-owners can also be considered as ship-operators.

15 respondents requested confidentiality for their responses, i.e. no publication on the Commission's website, while 24 respondents authorised publication on the Commission's website in an anonymous format.

4. **Results of the on-line consultation**

4.1. GENERAL CONTEXT

4.1.1. Equal treatment of all sectors of the European economy

54% of respondents consider that the maritime sector should contribute to the European emission reduction efforts as other sectors, whereas 39% felt sector contributions not necessary. 7% of the respondent had no opinion on the matter. The arguments developed under this question by the respondents demonstrate a full range of opinion from a strong support to an equal treatment of all sectors of the European economy to a strong opposition to an inclusion of the maritime sector into the EU commitments.

All respondents considered that the maritime sector should take actions to reduce its greenhouse gas emissions. All respondents also felt that an agreement should be reached at the IMO level. There were however some differences of opinions on the timing and on the added value of EU action.

More precisely, 21 respondents considered that the IMO is moving forward at a sufficient pace, especially as result of the adoption of the Energy efficiency design index for new ships (EEDI) and the Ship Energy Efficiency Management Plan (SEEMP). Accordingly this group considered that EU action may interfere with the IMO work. Another larger group (24 respondents) considered that the IMO had not delivered sufficient measures (i.e. no market-based measure nor inclusion of shipping emission in reduction commitments) and that EU action would help the IMO move forward faster, especially by providing a strong base for a global action.

There were also different views on the urgency of regulating the GHG emissions on shipping. On the one hand, most ship-owners and ship-operators considered that shipping is a minor source of emissions and felt that as the most efficient mode of transport maritime sector should not be the immediate focus of policy action and priority should rather be on other sectors. Most NGO contributions considered that shipping is one of the fastest growing sources of emissions and therefore emissions from shipping should be addressed urgently.

Regarding competitiveness, all respondents agree that the key issue is to ensure a level playing field. However, the responses to this question reflected the different understanding of the associated dimensions. All NGOs and a majority of individuals (38 respondents in total), underlined that the maritime sector is the only sector of the European economy not included in the EU commitments, emphasising the intra-European perspective. According to them, this creates a market distortion compared to other sectors of the EU economy. 13 other participants, especially from ship-owners and ship-operators, claimed that the maritime sector is global and therefore EU action could risk triggering a market distortion in the maritime sector with other regions in the world.

Equal treatment of all sectors of the European economy was also felt to have the potential to provide a clear signal for technology improvement in the maritime sector. Almost 20 participants stressed that there is potential in the maritime sector to reduce its GHG

emissions. The up-taking of this potential could result social benefits by stimulating growth and job creation due to the retrofitting of ships and the development of new equipment. However, one equipment manufacturer said that, even if the potential is there, the question of affordability of such emission reduction should be assessed carefully. On the technological improvement of ships, a ship-owner mentioned the difficulties of reselling a vessel outside the EU, as the improvement of energy efficiency required by the EU may not be considered of value by stakeholders outside the EU.

While all NGOs supported equal treatment of all sector of the European economy, 15 NGOs stressed the need to avoid negative effects on the poorest countries, especially on least developed countries. All NGOs requested a contribution of the maritime sector to global climate action.

10 respondents, especially ship-operators, also stressed the issue of modal shift, especially for short sea shipping, and evasion.

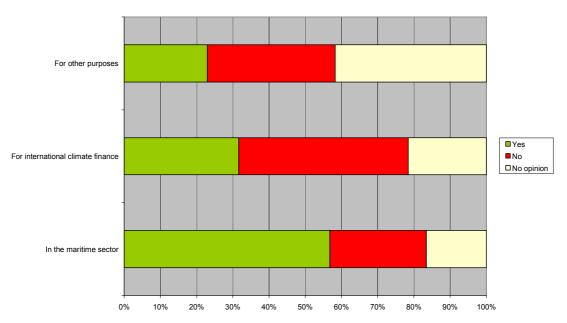
4.1.2. Use of revenues

A majority of respondents (57%) considered that revenues generated by a market-based measure should be used to tackle climate change and support investments to reduce emissions in the maritime sector, e.g. by improving energy efficiency of the fleet, especially through research and development or by removing market barriers in the maritime sector, especially due to split incentives. One service provider stressed that recycling of revenues in the maritime sector may weaken the polluter pays principle if the revenues are going back to the polluters.

Regarding the use of revenues primarily for international climate change finance, there is no clear prevailing view. The responses varied between 37% in favour and 47% against. However, all NGOs are in favour and they proposed to use at least 50% of the revenues for this purpose, especially for the poorest countries. Moreover, even those respondents which are against primary use for international climate finance recognise the need to use revenues for developing countries in the event of there being a global scheme. The use of revenues from a global scheme for international climate change finance was also seen by 13 respondents as a way to help the IMO to move forward.

Furthermore, the use of revenues for other purposes than tackling climate change and supporting investments to reduce emissions in the maritime sector or financing the international climate change funds, was only supported by 23% of respondents. The respondents in favour argued that the revenues could be used to lower labour taxes or to use for the poorest households who are dealing with increase of energy prices.

Use of revenues



More generally, it was stressed that the revenues should be used in accordance with the IMO principle of "no more favourable treatment". 29 respondents considered that the revenues generated from either a regional or global system should be centralised to a single entity (collection point) in charge of its use. Furthermore, even if it is not directly related to an EU measure, 5 respondents underlined that a 'double charge' (i.e. a contribution to the IMO and one to the UNFCCC) should be avoided.

4.2. Scope of a possible proposal

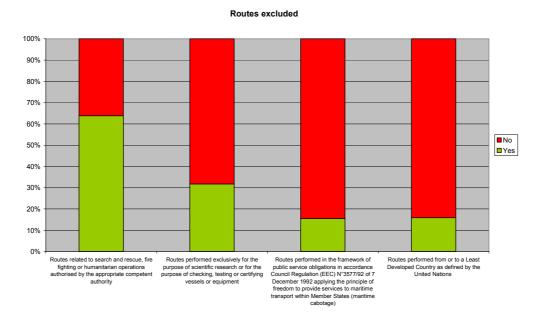
4.2.1. Route coverage

More than 70% of respondents considered that no route to or from European ports should be excluded from the scope, except routes related to search and rescue, fire fighting or humanitarian operations authorised by the appropriate competent authority. Indeed, 37 respondents consider that the exclusion of routes may potentially create market distortions and encourage activity seeking avoidance of the scheme.

3 respondents concerned with short sea shipping urged consideration of either exemption of routes performing public services obligations or exemption of routes in competition with land based transport to avoid modal shift. Respondents from short sea shipping also highlighted that, at present, some routes cannot be performed in the most efficient way regarding GHG emissions as the infrastructure on ports is not yet available, especially as regards LNG, or as the weather conditions are not optimal (e.g. need for ice-breakers).

12 respondents, especially NGOs, also indicated their view that the exclusion of routes from least developed countries makes no sense as some goods coming from least developed countries may transit by other countries. Therefore, the impact on trade of goods should be assessed.

11 respondents took the view that only routes within the EU should be covered by an EU scheme.



4.2.2. Ships covered

The responses to the questionnaire indicated that European policy action for regulating CO_2 emissions from maritime transport should be applied to all types of vessels or some main types of vessels, such as general cargo, tankers, containers, bulk carriers, refrigerated ships, passenger ships, ferries, fishing ships and military, customs or police ships.

75% of respondents to this question considered that no other categories should be added. 54% of respondents to this question considered that no categories should be excluded. 18 respondents indicated a preference for small emitters to be excluded. The threshold for exclusion suggested was 400 GT (to fit MARPOL requirements), 500 GT or 5000 GT. 5 respondents, especially ship-owners and ship-operators, indicated that the size threshold should be carefully assessed to avoid potential distortion of competition within the categories.

The 46% of respondents considered that some categories of ships should be excluded, and all agreed that fishing ships and military, customs and police ships should be excluded. The exclusion of service vessels and yachts (and more generally all private vessels) was also proposed. Finland mentioned that the specificity of ice-breakers should be taken into consideration.

4.3. RELIANCE ON SHIPPING AT A LOCAL OR REGIONAL LEVEL

The consideration of the reliance on shipping at local or regional level gave balanced results: 52% were in favour of taking the reliance into account, whereas 48% were opposed to the idea. Quite markedly, all local, regional and national public authorities were in favour of taking into consideration the reliance on shipping at local or regional level.

One third of respondents in favour stated that the reliance on shipping of isolated regions, like islands, overseas territories and EU peripheral regions should be considered. 7 respondents, especially NGOs, considered that the level of development of the region should be taken into account, especially for least developed countries and small island developing states. It was also proposed to define the regions according to the risk of modal shift of their trade. One respondent proposed to solve the issue of reliance on shipping by providing grants and loans to local actors.

4.4. EVASION

53% of respondents provided comments on the question of evasion. 39% of respondents considered that there is an important risk of evasion especially in the Baltic sea, in the Mediterranean Sea (and especially around the Strait of Gibraltar) and in the Black sea. 19% of respondents contested the link between the implementation of a regional environmental policy and the loss of competitiveness for maritime actors, which would trigger evasion. One ship-operator stressed that the risk of evasion is pending on the level of the carbon cost, the extra fuel burnt and, eventually on the level of additional port dues and on the cost of transhipment. Two NGOs indicated that evasion would not occur if the charge of the carbon constraint was put on ports, which is an option that has been proposed by Jamaica in the IMO.

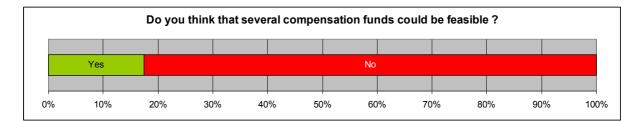
4.5. POLICY OPTIONS

4.5.1. Compensation fund

Management of a compensation fund

68% of respondents considered that any compensation fund should be managed by a public entity. 42% of respondents recommended the IMO or an EU public body. 5% of respondents also recommended management by the industry, but this option raised opposition from the NGOs. The management by national authorities, by the UNFCCC, by a group of stakeholders (industry, EU and Members States) were also mentioned. 16% of respondents underlined the general principle that the fund should be managed by an independent entity. 22% of respondents stressed that the management of the fund should be transparent and independent from political interest. 3 respondents indicated that the management of a fund should depend on the purpose of the fund, in term of revenue recycling.

Implementation of several compensation funds

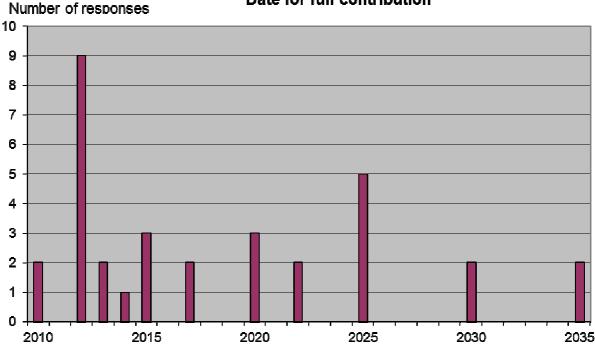


Around 82% of respondents took the view that the existence of several compensation funds would not be feasible. The rationale they mentioned was built from the notion that several compensation funds may create an important administrative burden and market distortions. It was also stated that this could increase the risk of fraud and carbon leakage. The respondents in favour of several compensation funds felt that such a set up could give flexibility to the sector. This group of respondents also recommended to set different funds according to ship types.

Option 1: Contribution-based approach

Under option 1, a contribution has to be paid for each ton of CO2 emitted falling under the responsibility of the compensation fund. The level of the contribution is driving the level of reduction.

There was no strong majority in favour or against a rebate of the contribution to a compensation fund, in the initial years. 22% are in favour, 33% are against and 45% of the respondents did not answer. Among the respondents in favour of a rebate, there was no strong differences between those preferring a reduction to be based on a percentage of a certain carbon price (75% in favour) or by pre-set levels of contribution in financial terms (60% in favour). Regarding the end of the rebate, there was no clear preference for a particular precise date for reaching a full contribution, and timings between 2010 and 2035 were proposed.



Date for full contribution

Option 2: Target-based approach

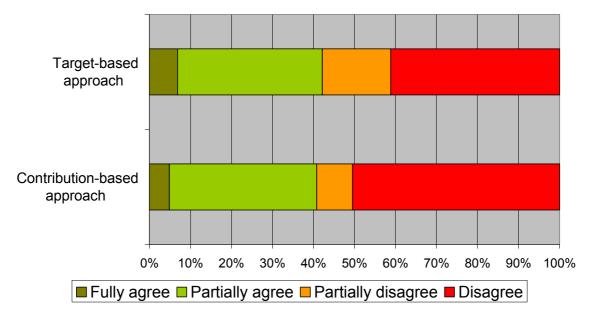
13 respondents considered that penalties should be paid for emissions above the target to ensure compliance. 11 respondents proposed also to use offsets or financial guarantee.

2 respondents indicated that setting a target according to historical emissions is not suitable, as this does not take into account the variability of the shipping emissions due to the variation of trade or due to the weather conditions.

All NGOs stressed that the compliance mechanism has to be robust and ensure environmental integrity. They proposed that a third party controls the achievement of the target. Some shippers mentioned that any such system should foresee benefits for being in compliance. Regarding monitoring, one NGO proposed to use fuel tank monitoring and another participant proposed fuel sellers as the monitoring entity. The Norwegian NOx Fund was mentioned as an example to use for a possible EU measure.

Comparison of option 1 and 2

As shown in the graph below, majority of respondents considered that neither a contribution based compensation fund, nor a target based compensation fund could achieve the emission reduction effectively or efficiently.



Do you consider these options could achieve the emission reduction required effectively and efficiently?

4.5.2. Mandatory emission reduction per ship

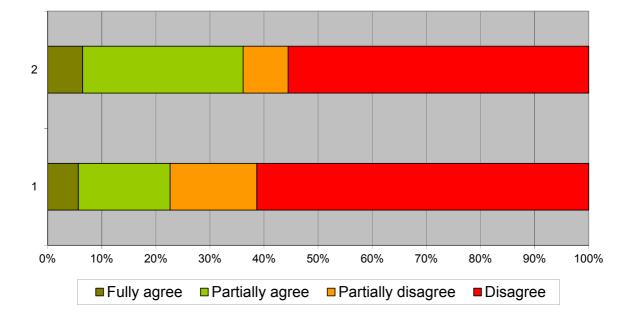
The replies to the questionnaire indicated that a target corresponding to a mandatory emission reduction compared to historical transport performance or emissions could be set for each ship calling into in-scope ports. The mandatory emission reduction target could be set as percentage of historical baseline (option 1) or in comparison with an index, such as the Energy Efficiency Design Index (EEDI, option 2).

More than 60% of respondents considered that neither a mandatory emission reduction target set as percentage of an historical baseline (option 1), nor a mandatory emission reduction target set in comparison with an index such as the EEDI (option 2) could achieve the emission reduction effectively or efficiently.

The rational is that a baseline is considered very hard or costly to define. Indeed, most of the respondents are against the use of the EEDI¹¹ or the Energy Efficiency Operational Indicator (EEOI). Moreover, the administrative burden of setting a baseline is considered as very high due to the number of ships and the multiple parameters, like loading conditions, weather conditions, etc. to be considered.

Some concerns were also raised about the environmental effectiveness of such an option, as no absolute target is set and as the environmental integrity could be challenged by the increase of ships in case of a baseline based on historical emissions.

16 respondents, especially NGOs, also raised the issue that mandatory emission reductions per ship do not generate revenues.



Do you consider that these options could achieve the emission reduction required effectively or efficiently ?

62% of the respondents considered that the baseline cannot be set on another basis than the two options suggested in the questionnaire, even if some respondents proposed to use speed as a baseline or to consider the Environmental Ship Index.

65% of respondents agreed that a mechanism to reward early movers should be foreseen. It was proposed to consider a differentiation to the pricing of emissions for early movers or

¹¹ After the publication of the on-line consultation, the MEPC 63 agreed that the EEDI should not be applied to existing vessels.

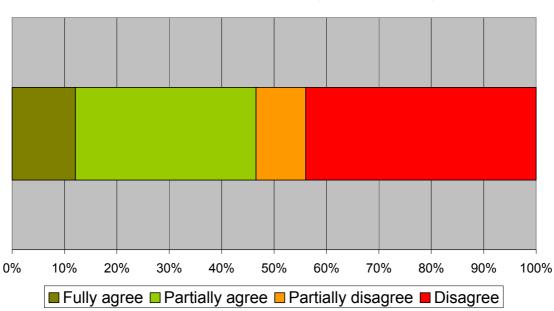
some financial incentives (e.g. tax reductions, special grants, etc.). 6 respondents suggest using ETS as a compliance mechanism to trigger benefits for early movers. It was also proposed to differentiate the target according to speed.

Furthermore, 73% of respondents consider that a mechanism that creates incentives to go beyond the mandatory emission reduction should be explored. 16 respondents proposed to develop a baseline and credit emission trading scheme for this purpose. 35 respondents proposed to set the baseline according to speed. 10 respondents proposed to introduce financial incentives, either through reductions in the pricing of emissions or of ports dues, or through special grants, while 16 respondents proposed to introduce energy efficiency labelling.

4.5.3. ETS

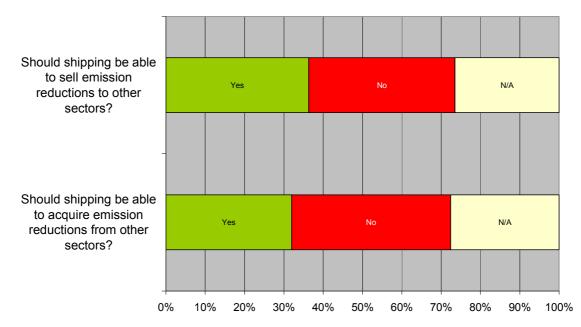
Regarding the effectiveness and the efficiency of an ETS to achieve the emission reduction required, the opinion of respondents is balanced. 46% of respondents considered that an ETS can provide the right signal to reduce GHG emissions from shipping if using an absolute cap. Those respondents also stressed that ETS gives flexibility to achieve the emission reduction. 44% of respondents, especially from ship-operators and ship-owners, were concerned at the perceived administrative burden of an ETS. The same group of respondents also mentioned that a regional ETS may not be internationally well-received. Regarding the cost of an ETS, shippers expected pass-through of costs even in a case there were free allocations given. 27% of respondents from various categories considered that the ETS is the least costly mechanism if emission reductions need to be made.

15 respondents, especially NGOs and individuals, noted that the environmental outcome of an ETS depends on the level of the cap. It was stressed that a reliable monitoring and reporting scheme was needed, as well as a mechanism to ensure effective compliance.



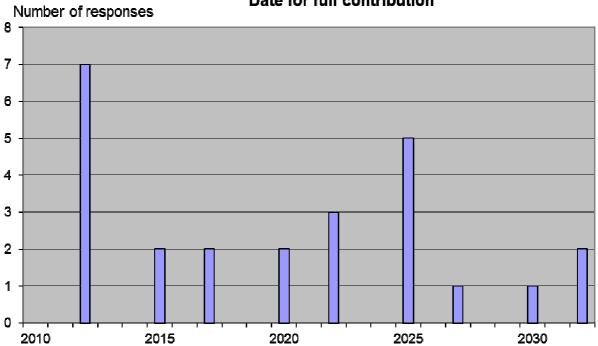
Do you consider that an ETS could achieve the emission reduction required effectively and efficiently?

Regarding potential linking with other sectors, the responses were fairly evenly split. On the one hand, 43% of respondents, especially from ship-owners and ship-operators, supported the linking of a maritime ETS with other sectors, as it would enable access to cheaper emissions reductions, ensure equal contributions with other sectors and allowing shipping activity to grow even where this leads to an increase in absolute emissions (as reductions can be bought from other sectors). On the other hand, 45% of respondents, especially NGOs, considered that emission reduction should be done in-sector as the maritime sector can implement measures with negative abatement costs. Potential variation of carbon price worried 16 respondents. 2 respondents mentioned that the ETS should be designed to avoid windfall gains for specific categories of vessels. Some NGOs highlighted that the use of CDM should not be unrestricted.



Linking with other sectors

Regarding potential financial support to the shipping industry (either directly as free allowances or some of the revenue generated from allowances) by an emission trading system, the replies in favour or against were evenly split: 29% were in favour, 29% were against and 42% of the respondents did not answer. Regarding the end of potential financial support to the shipping industry, there was no clear preference on a precise date for full contribution, with dates for reaching a full contribution spanning between 2012 and 2032.



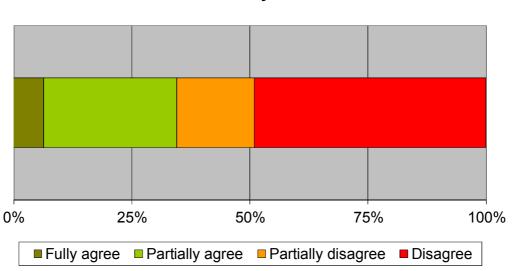
Date for full contribution

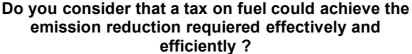
4.5.4. Tax

Tax on fuel

71% of respondents considered that the evasion risk regarding the implementation of a tax on fuel at a regional level cannot be avoided. 16 respondents in favour of a tax on fuel considered that it could be applied as a measure directed to the smallest ships, as a supplementary policy instrument of an ETS or a compensation fund. 4 respondents stressed that this option would be fully applicable if it were possible to be applied globally.

49% of respondents indicated that a tax on fuel could not achieve the emission reduction required effectively and efficiently. The main concern raised was related to the fact that no revenues of a taxation system would be earmarked for any purpose. Moreover, the environmental output is highly uncertain, especially regarding the risk of evasion, but also due to the fact that there is no cap on emissions. Furthermore, 12 respondents from various categories expressed their doubts regarding the economical effectiveness. In particular, it was mentioned that some competition distortion could be triggered if different levels of taxes are set by Member States or if the level of the tax triggers some modal shift. One service provider indicated that the effectiveness could be solved by the introduction of progressivity (the tax should be high when the fuel price are low and low when the fuel prices are high). One individual mentioned that if a tax on fuel was introduced the type of fuel should be considered (biofuel/fossil fuel/blended).

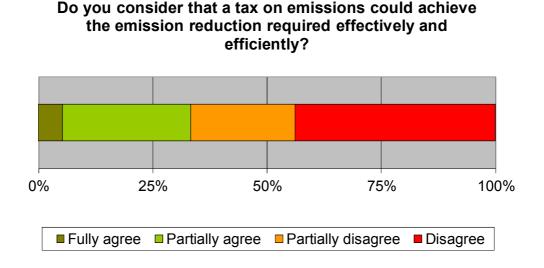




Tax on emissions

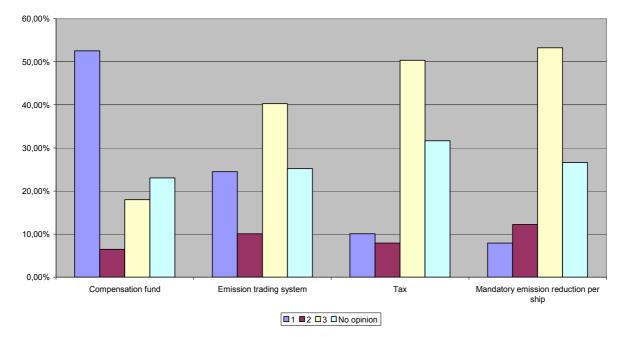
44% of respondents indicated that a tax on emissions could not achieve the emission reduction required effectively and efficiently. 31 respondents from various categories considered that the risk of evasion is lower for a tax on emissions than for a tax on fuel.

However, 15 respondents from various categories indicated that the administrative burden may be higher for the ships and the public authorities. Two NGOs indicated that a tax on emissions should avoid adverse effects on least developed countries. One individual mentioned that ships operating in specific weather conditions should be taken into account.



4.6. CHOICE OF POLICY OPTIONS

Regarding the promotion of progress at the IMO, a measure comprising a "compensation fund" received the highest support, with 53% of respondents ranking this option as the most preferred one. An ETS measure was considered as the most preferred option by 24% of respondents, while a tax was considered as the most preferred option by 10% and mandatory emission reduction per ship was considered as the most preferred option by only 8%. As a consequence, the tax option and the mandatory emission reduction per ship were considered as less preferred options by more than 50% of the respondents. The level of respondents with no opinion is almost the same for any option.



Which of these options for an EU proposal could be better to promote progress at the IMO (rank from 1 (preferred) to 3) ?

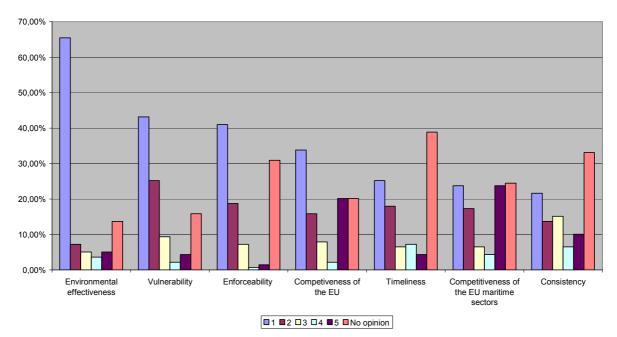
The questionnaire identified the following criteria that could be taken into account for the evaluation of possible EU measures:

- Environmental effectiveness (ensure effective emission reduction in line with the 2°C objective)
- Maintaining and enhancing competiveness
- Maintain competitiveness of the EU maritime sectors through both first mover advantage and by providing incentives to increase fuel efficiency
- Enforceability (Ensure appropriate monitoring, reporting and verification while keeping administrative burden to the minimum)
- Consistency with the related EU policies
- Vulnerability: Exposure to/Risk of evasion
- Timeliness (Consistency with timing of application of measures and interaction with policy progress in international fora)

The environmental effectiveness of a possible EU measure was considered the most relevant criterion by 65% of the respondents. Other criteria to determine the choice of the policy option considered as most relevant or relevant by a majority of respondents were the vulnerability of the legislation, its enforceability and the impact on competitiveness of the EU economy.

The other proposed criteria (timeliness, competitiveness of the EU maritime sector and consistency with the related EU measures) were regarded as less important for the choice of the policy option.

Evaluation criteria 1 (most relevant) to 5 (less relevant)



46% of respondents considered that other criteria should be used to choose the policy option and 44% had no opinion on this. The additional criteria mentioned were the ability to generate revenues, the effects on least developed countries, the ability to provide a stepping stone to an effective global carbon pricing arrangement, the affordability to vessels operators/owners and the risk of modal shift. Regarding revenue generation, the contribution to the international climate finance is proposed to be between 2.7% and 50% or more of the revenues.

29 respondents, especially ship-owners and ship-operators, recalled the nine principles agreed by IMO to define a market based measures and indicated that an EU proposal should be assessed against these criteria. One respondent indicated that the criteria proposed in the questionnaire were sufficient as the nine principles of the IMO are included in.

Regarding the potential use of international credits (e.g. from the Clean Development Mechanism) for compliance, the opinions were split as 50% of respondents were in favour and 50% against. 22 respondents, especially from NGOs, indicated that they were not in favour of offsets, as some measures with negative abatement costs are available in the maritime sector. However, 13 others indicated that it could give flexibility for the maritime sector to achieve its target.

Regarding the same approach to use of the international credits as for other sectors, views were evenly split (49% of respondents for, 51% against). A key issue mentioned was related to the quality of international credits.

4.7. GENERAL COMMENTS

Under this section, many respondents reiterated their strong support or their strong opposition to regional EU action. As could be anticipated, many of the ship-owners and ship operators took the view that the IMO deliveries, i.e. the EEDI and the SEEMP, are sufficient or felt confident that the IMO would be able to deliver an MBM in the 'short term'. In such context, this group of respondents were of the opinion that the EU should not act. One ship-owner representative proposed that there should be a sunset provision under an EU regulation. On the contrary, many equipment manufacturers, the environmental NGOs and some ship-owners and ship-operators considered that an EU proposal would be a desirable stepping stone for further action at global level.

The importance of ensuring the same level playing field for all maritime actors was emphasised by the bulk of the respondents. 16 respondents further mentioned that any future scheme should be designed in a way that would provide predictability for planning future economic actions. The option of basing a future scheme on incentives and not on penalties was also put forward by 3 respondents in this section.

Many NGOs emphasised that revenues should be provided from shipping for international climate finance and especially for least developed countries. On the contrary, most ship-owners, ship-operators and equipment manufacturers took the view that the revenues raised should be use to finance research and development in the maritime sector and to implement new green technologies.

One port and one individual were of the opinion that the maritime sector was already struggling due to the implementation of the MARPOL Annex VI related to sulphur content of fuels.

Some international partners (US, Canada and Japan) indicated their strong desire to accelerate discussions in IMO, and to work together with the EU and preferred the EU postponing market-based measures and focussing efforts on a common global proposal.

5. GENERAL CONCLUSIONS

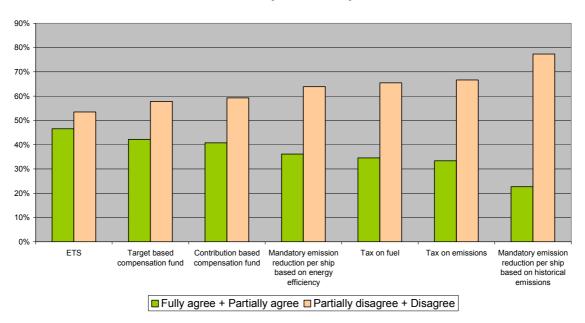
The responses to the consultations carried out clearly illustrate that respondents agree that a global agreement in the IMO remains the best long term option to achieve GHG emissions reduction of the shipping sector. The views on the contribution of an EU proposal to this process differ. In the event of a European measure, there appears to be general agreement that securing a level playing field for all ships using ports in the EU should be a central priority.

Views also converge in so far that any market-based measure, whether adopted at EU or IMO level and whether it is a tax, a compensation fund or an ETS, should have transparent and robust monitoring of emissions. It was further felt that the monitoring approach to be applied should avoid undue administrative burdens and ensure accurate reporting results.

In general, the position taken by the respondent groups reflected their expected interests. Shippers raised concerns about a possible pass-through of cost even if there were free allocations or other subsidy measures, which could lead to an increase of freight rates; representatives of the short sea shipping focused on the risk of modal shift; ship-owners and ship-operators stressed primarily the issue of affordability; the equipment manufacturers

mentioned the benefits for the implementation of green technologies. Public authorities generally wish to limit administrative burden. NGOs indicated that the use of revenues from maritime was an important way to provide climate change funding to the least developed countries.

Regarding the different options proposed, respondents indicated that the two most preferred ones would be the compensation fund (with the target- and contributions-based sub-options) and the ETS. An ETS was considered as the most effective and efficient option to achieve the emission reduction required, with a compensation funds considered the second most effective and efficient policy measure in this context. Establishing a compensation fund was considered as being better to promote progress at the IMO, while the establishment of an ETS was considered as the second most effective option to promote progress at the IMO.



Do you consider that these options could achieve the emission reduction required effectively and efficiently?

The feedback on the effectiveness and efficiency of the policy options confirmed that a number of ship owners and operators, making up the majority of the respondents, are sceptical regarding all market-based measures.

This consultation provides an input to the Commission's impact assessment work.

ANNEX IV - MINUTES OF THE ECCP MEETINGS

1st Meeting

REDUCING GREENHOUSE GAS EMISSIONS FROM SHIPS

MINUTES OF THE FIRST MEETING OF THE SHIPS WORKING (WG Ships) GROUP 6

HELD ON 8 & 9 February 2011

at the Albert Borschette Building, BRUSSELS

These minutes summarise the discussions in the first meeting of the ECCP Working Group on ships. The group was set up to provide input to the Commission in its work to develop and assess options for the inclusion of international maritime transport in the EU's GHG reduction commitment should there be no sufficient international agreement addressing these emissions. The ECCP brings together all relevant stakeholders, to discuss and prepare the further developments of the EU and the modalities of reducing GHG emissions from ships.

This meeting is the first of a series of three meetings foreseen to consider a list of topics important to the maritime sector and focused on scope, monitoring and enforcement.

All presentations referred to below are available, as well as a list of organisations represented in the group at: http://ec.europa.eu/clima/documentation/eccp/second_stakeholder_en.htm

These minutes record the views expressed by representatives present in the Group.

For the next ECCP

It was requested that the background material be sent earlier (BE, DE, DK, NL, INTERTANKO) and that the dates of the second ECCP be changed to avoid overlap with IMO and UNFCCC meetings. FI suggested that the 3rd meeting be held after MEPC 62. WSC and others requested a set of scope scenarios to discuss. IETA also requested additional time to discuss reporting, verification and enforcement (before evasion). Commission Representatives agreed that a number of issues such as scope could be re-opened at a subsequent session.

Shipping GHG emissions and the IMO

The majority of participants stated that the priority should be to aim for a global agreement reached at the IMO level (FI, DE, NL, GR, INTERTANKO, ECSA, SE, T&E, WSC, CY, ESC, UK, ECC, Seas at risk, DK, MT, FR, IMO, CESA, NO, IR). The Commission also stated its strong preference for an effective global agreement and stated clearly that an IMO or UNFCCC measure should be adopted which includes maritime transport emissions in reduction commitments. The ECCP forum is a way for stakeholders to express their views at a level of detail that will help measures to make sense, whatever the fora for their implementation.

NGO T&E stressed the need to cover maritime emissions, as aviation emissions will soon be fully covered by the EU ETS. T&E also called upon the 5 EU MS that have not ratified MARPOL Annex

 $\rm VI$ to do so ASAP (T &E, NO) and with regards the Energy Efficiency Design Index (EEDI), to strengthen the EU voice behind its adoption.

Views on regional action

Following an initial presentation, participants made the following points regarding the specificities of any potential regional measure:

- Consistent with 9 IMO principles (DK, ECC, NL)
- Based on existing IMO tools and documentation as this will facilitate expansion into a global scheme (ECC, NL, MT, CESA, BIMCO, NO, EMSA)
- Importance for 'expandability' into an IMO scheme. A replicable regional measure would mean that different measures adopted in various parts of the world could fit together. (SE, CY)
- Flag neutral & avoid distortion of competition (BIMCO, WSC, NL, DK, MT)
- Minimum administrative burden (ESC, NL)
- Favouring incentives rather than sticks (ESC)
- Be adopted fast (NL)
- Start with a phase-in approach (IMO, NL, NO, EMSA)
- Cover a large volume of emissions (SE, Sea at risk)
- Fair and equitable measures which will not impact negatively on competitiveness (FR, ESC) and will prevent evasion (DE, NL) as well as carbon leakage (FR)

Scope Discussion

After an opening presentation, stakeholders exchanged views on the different aspects of scope:

<u>Type of GHG emissions</u> - the IMO Secretariat, NL and FI proposed to cover CO_2 (initially – NL, FI). NGO T&E stressed the importance to cover black carbon, a potent GHG and NOx emissions as these cause major eutrophication problems. Even though extensive efforts have gone into targeting NOx emissions from land based sources, no efforts have gone into addressing those coming from shipping. On this point, Commission representatives explained the planned revision of the Sulphur Directive.

<u>Geographical Scope</u> - NGO Seas at Risk, as well as SE, argued for the largest coverage possible to avoid market distortion (DE). MT stressed the importance to study this topic more extensively.

The WSC, CY and NO, suggested that an EU measure should rely on a port entry based system, rather than a time or distance based one (CY, NO). The WSC explained that a time based measure would be difficult to apply in practice and that more analysis on the workability of such an approach is needed (WSC, BE, UK). Similarly, the distance based scheme has difficulties but precedents are available (WSC).

IE suggested a hybrid scheme covering ships that bunker in the EU vs. all other ships. MT suggested different measures for different scope boundaries in a staggering manner. Similarly, Business Europe favoured various instruments for intra EU, inland and outside EU shipping.

<u>Liable entity responsible for covering emissions</u> – Different views were expressed as to who should be the liable entity. CY suggested the registered owner and for non EU flagged vessels the use of Internal Safety Management Code (ISM Code) manager; CY will provide written comments to all participants with explanations. IE suggested the registered operator rather than the owner. SE suggested a hybrid scheme, with an upstream and downstream approach for ships not buying emissions by covered suppliers. MT suggested considering a combination of measures applicable differently to intra-EU shipping and ships going/coming from third countries.

EUROPIA had a different opinion and expressed its preference for a downstream approach, stating that marine fuel suppliers should not be involved. EUROPIA suggested that the liable entity be the one responsible and/or having an influence on emissions reductions. This was also supported by FI and SE. ECSA suggested using the management company and the use of compliance documents showing the person in charge of safety.

<u>Type of Ships</u> – Different views were expressed with regards which type of ships should be covered.

NL suggested the coverage of as many ships as possible but stated the need for further information and analysis. Similarly, SE explained that smaller ships should not be exempted to protect intra-EU shipping competition, but also because relatively small ships are large emitters. A hybrid system was suggested (upstream for smaller ships, and downstream for larger one). EMSA also supported the hybrid approach suggested by SE.

A large group of participants was in favour of covering larger ships above a certain threshold.

The WSC, the IMO Secretariat and SI proposed to target large ships at first, as covering small ships could be extremely burdensome (WSC, IETA) and could lead to modal shift (IMO, ECSA). Also, by addressing larger ships first, it will be possible to assess the scheme's monitoring capabilities/difficulties (SI). A different measure could then be developed for smaller ships (BIMCO). The IMO Secretariat proposed the use of a high tonnage threshold and BIMCO suggested the IMO thresholds (thereby making the system expandable into a global measure). The UK added that the 'de minimis' threshold should not compromise the environmental effectiveness of the scheme – for instance a 500Gt threshold could be used, as stated in the CE DELFT report, 97% of emissions in 2006 were produced by ships above 500Gt. Commission representatives noted that 80% of emissions come from ships above 5000gt. EMSA also suggested the use of IMO thresholds including MARPOL and SOLAS.

However, a threshold based system could incentivise shipbuilders to build ships below that threshold (WSC). Also, IACS expressed their concern about underpowered ships being produced: there is a need to be able to keep going in heavy weather.

<u>Legal aspects</u> – certain participants raised concerns regarding the legal aspects of a regional scheme, especially if based on port entry (UK, BIMCO, WSC, BE, CY). However, NGO Seas at Risk and CY stated that most legal issues could be overcome. They gave some example such as the US Oil Pollution Act (OPA). Commission representatives observed that

partial coverage of industry was precedent. In a recent ECJ case (Arcelor case C-127/07), the Court ruled that provided the regulator extends coverage over time, a portion of the sector may be covered at first.

<u>Speed Limit Approach</u> – NGOS were very supportive of this approach versus the industry which raised many concerns.

NGO Seas at Risk suggested the need for a speed limit imposed as a mandatory requirement to port entry, and as a potential complementary measure to a MBM. Slow steaming would help ships meet their operational EEDI and lead to actual in-sector reductions. This view was supported by NGO T&E confirming that slow steaming leads to immediate emissions reductions. Even though more ships might be required, the CO₂ gain will remain significant. Seas at Risk is currently organizing a study looking at speed limits, regionally, globally, and at contract and chartering aspects.

IE and FI explained their heavy reliance on shipping for imports and exports (95% of trade to Ireland is via ships). In this context, they both expressed their dislike towards this approach. FI explained that the increase in ships needed to compensate for the slower steaming, in combination with the heavy winter conditions, would increase GHG emissions significantly. The ECC explained that in addition to the increase in emissions, the need for more ships would mean additional crew would be required; currently the market lacks maritime crew. BIMCO added that slow steaming impacts the logistics chain negatively and that it is already done during fuel price increases. ECSA's concern was that a speed limit would lead to modal shift to aviation. SE explained that a speed limit could not be applicable on RORO and passenger ships as these are designed to run on specific schedules that allow a specific amount of trips per day. The ESC expressed concerns over resulting lower lead times. ESC therefore proposed that slow steaming be applied on a voluntary basis only (ESC, BIMCO).

<u>MBM</u>, technical or operational measures - NGO T&E stated that shipping should explore every possible avenue for emissions reductions (technical, operational and MBM). They urged the Commission to keep considering all possibilities and that a technical measure could influence the IMO members to act prompter. T&E also suggested fuel taxation in Europe. For a regional scheme, the IMO Secretariat favoured an MBM stating that it would be more difficult to introduce operational and technical measures regionally. For example, the implementation of an operational measure requires a change of culture on board the ship – this is more difficult than to require ship operators to pay a fee. Similarly, it is more difficult to regulate the construction and design of ships regionally. The IMO Secretariat concluded that technical conditions could be set but these would certainly be less straightforward than an MBM.

Many other participants also agreed that all technical regulatory aspects should be dealt with by the IMO (NO, INTEMANAGER, OCIMF, MT). The importance of technology was also stressed by CESA, stating that as shown by DNV and the IMO studies, technological and operational measures combined provide net benefits to the operator. IACS added that any technical measure should be solely technically based and not politically driven (i.e. double hull).

<u>Need for additional data</u> - Many participants stated the need for additional data and examination of data. Data is needed about the composition of ship size/fraction/thresholds within Europe and segregate who comes from trans-oceanic voyages (WSC). FI requested that COM provides more information at the next meeting on the distribution of emissions (intra-EU / domestic / third countries) and per type of shipping (FI, Business Europe). This will also help determine which types of ships should be covered (IETA). (NB. The COM is intending to provide such information to the second ECCP meeting)

Concluding comments by the Chair

Stakeholders

- Accept the urgent need to tackle climate change
- Strongly prefer a global solution
- Suggest building on existing scope/categories rather than reinventing the wheel
- Suggest focus on CO₂ initially
- Strongly support a flag neutral application
- Suggest port state control as a possible way of administering/enforcing
- Suggest a MBM is more appropriate for regional action than technical or operational measures

Monitoring

Following the EEA's presentation, Commission representatives made a brief presentation on monitoring and stressed its importance for ensuring successful implementation. FI supported this statement by quoting an IMO expert group report stating that "the integrity of an MBM depends on robust monitoring".

Two monitoring options were examined:

- Option 1 Inventory control based on the log books or Bunker Delivery Notes (hereafter BDN). Use of emissions factors. 5% margin of error.
- Option 2: A direct measurement approach with a fuel consumption monitoring system.

The following points were then made by the stakeholders:

<u>Data availability</u> - NL stated that fuel consumption data is simple to gather as the crew normally measure and report fuel consumption on a daily basis. NL explained that the data may be inaccurate at times but that all technical issues preventing accurate data collection could be tackled. It was added that if the EEDI became adopted, ship operators would be very keen to have accurate information.

ECSA stated that there are many possible ways to monitor emissions but these are time consuming. From the technological/hardware side, CESA and INTERMANAGER confirmed that fuel consumption can be measured precisely. CESA explained that ship operators

operating their own ship, are very keen in investing in monitoring equipment and that the uncertainties in the data originate from the lack of legal requirements and enforcement. In this context, SI expressed its contentment over the industry acknowledging full technical possibility to monitor its emissions and added that in combination with political will, progress could be made. For the dredging sector, fuel consumption depends on the activity and is straightforward to measure (what goes in, goes out). However, with the emissions, alterations are common depending on engine performance (EUDA).

<u>The method to gather data</u> - INTERMANAGER stated that from an operational point of view many indicators could be used for monitoring (data that gives indication on the tuning of the engines). This should be considered, as many factors (wind, waves etc) influence fuel consumption data and create uncertainties and inaccuracies. EMSA suggested the use of existing EU monitoring tools. Moreover that the EU Member States could as a condition to port entry, require data reporting.

IBIA explained that inaccuracies are common in fuel consumption data and therefore suggested emissions monitoring rather than fuel. Finally, the question of how precise we would want to be was raised (IBIA, IETA). The UK favoured the use of current available data and stated that a 5% margin for error sounds acceptable (Option 1). In the context of Option 1, BIMCO added that the IMO emissions factors should be used, as the industry is familiar with them and knows how they work. With the Fuel Quality Directive, upstream CO_2 emissions are known for the power sector. It is however complicated to track the emissions based on marine fuel supply distribution. EUROPIA therefore favoured emissions calculation based on factor emissions (Option 1).

The IMO Secretariat favoured Option 2 (direct measurement) and added that a ship calling regularly at an EU port, when subject to an emissions reduction measure, might chose to invest in a reliable emissions monitoring equipment. A ship that rarely calls at an EU port may prefer to pay a standard fee.

Entity responsible for reporting fuel consumption - SE stated that the shipowner should report fuel consumption by providing a declaration, i.e. like the Norwegian tax which has a declaration system and makes use of the BDNs and the log books; ships prove they emitted less than the benchmark (IMO). EMSA added that with such a system which looks at the level of the single ship, the declaration data could then be compared with the bunker fuel sale statistics.

<u>Reporting of fuel consumption</u> - The IMO Secretariat explained that there is no legal requirement for ships to report their emissions. A 2008 IMO Secretariat proposal to introduce mandatory reporting of fuel consumption was turned down by the IMO Member States at the time. While it was recognized that fuel consumption data could be seized on every ship, IMO Member States objected to data collection for two main reasons:

- the resulting burden for management companies and the large flag states

- commercial confidentiality issues.

There is no plan by the IMO to raise this proposal again in the foreseeable future (IMO).

ECSA mentioned a voluntary reporting exercise which was carried out in Hamburg. Help/info could be requested from them. To minimise administrative burden, SE proposed that ships which run frequently between two ports, only report their fuel consumption once a month. Moreover, incentives could be offered to enhance accurate reporting and compliance. For the other ships (whether the scheme be route based or time based) a default value/price could be set.

EUDA suggested looking at the work of DG Enterprise on technical aspects. Moreover, EUDA requested that any measure adopted, create durable modification of the maritime market which will require all maritime stakeholders to change. DG CLIMA asked how the data collected at ship level could be consolidated and accurately reported for verification.

<u>Verification</u> - IETA pointed out the difference between the term verification when used in relation to GHG inventories and when used in relation to technology. Technological verification is done differently.

<u>Upstream or Downstream</u> - SE favoured an upstream approach in which shipowners would declare if the emissions bought were bought from a covered company. T&E explained that 50% of EU shipping emissions come from intra EU shipping and suggested ships be divided between the 'blue ships' which would be subject to an upstream charge and the 'red ships' (travelling outside the EU).

The WSC stated that an upstream system would be ideal if the market were closed; being open, a downstream system is most appropriate. Nevertheless, the WSC stated that a downstream system would still be very complicated to monitor and would impact the level playing field. The following questions were raised: How would you minimise underreporting? Is it difficult to segregate how much fuel suppliers have supplied and to whom? How do you verify that data? This view was supported by the IMO secretariat.

Concluding Comments by the Chair

- There appears to be lots of monitoring already being done for commercial reasons but no standard approach.
- Monitoring creates efficiencies and is beneficial for shipowners
- An adequate level of data accuracy is available
- The question is how much accuracy do we want
- Verification and reporting needs further discussing
- The definition of verification should be well defined when talked about

Enforcement

Following an initial presentation, EMSA mentioned the complementarities of the port State control and the flag State controls in enforcing measures applicable to ships. It highlighted the distinction should be made between controls in ports and Port State Controls which rely

on the Paris Memorandum of Understanding (Paris MOU). The following points were made by the stakeholders:

<u>Scope of enforcement</u> - MT stressed the important link between scope and enforcement, and the need to have a clear understanding of who will fall within the scope of enforcement. Reference was made to the aviation sector, for which according to MT, the identification of whether an operator fell within the scope or not was a complex exercise. Also, MT does not favour exemptions as this makes the above mentioned exercise more complicated.

WSC stressed that the context of what we are enforcing matters greatly and that knowing the context of the scheme would make it easier for the stakeholders to give feedback on enforcement. The following questions were raised:

- Whether the Commission is envisaging enforcement through a single enforcement unit or whether the Member States will be responsible

- Whether the Commission is envisaging recording fuel consumption or making calculations based on specific fuel consumption over specific distance

- Whether it will be required for ships to account for emissions occurring outside the EU

CMIA asked whether it would be possible to have a different enforcement scopes for intra EU shipping vs. international shipping. Many recalled that intra-EU is also partly international (voyages between EU MS). CMIA also expressed preference for an open sector approach, in which shipping would be allowed to trade allowances with other sectors – there would otherwise be a risk that the carbon price suffers of spikes.

<u>Enforcement mechanisms</u> - MT and BIMCO suggested the use of existing documentation (threshold certificates – BIMCO), regimes and proceedings (MT). MT and the IMO Secretariat both favoured a prescriptive approach, with clearly defined roles of who should do what. MT also suggested the hybrid approach. The ECC stated that ships should not be delayed because of the enforcement checks. NL proposed a risk based enforcement system with checks on a random basis (IMO).

In this context, it was mentioned that an advantage of a MBM is that it places fewer burdens on the industry than a Command and Control measure. The UK requested a linkable enforcement system, consistent and compatible to other systems.

EUDA favoured strong compliance incentives rather than bans (IE). The ECC asked whether early adopters could receive rewards.

IE favoured a sophisticated enforcement regime and suggested the use of SafeSeaNet (Maritime platform for exchange of information between designated authorities). Similarly to EUDA, IE does not favour banning procedures. Ships could give a 24h notice before nearing the port and confirm whether they are in compliance or not. If not, entry will not be allowed. This type of enforcement will be simple and won't require any physical intervention.

Commission representatives explained with the current EU ETS registry system, compliance and enforcement are straightforward. Once a year operators have to report their emissions in

the registry. Those then have to be verified by the verifier, who is also in the registry. In the case of shipping, the verifier could look at the BDN which wouldn't add an extra requirement in itself. The operator would then have to surrender allowances based on the emissions reported and verified.

This system makes it easy for the regulator to see who complies and who doesn't; this information is then also publicly available, which creates an extra incentive for compliance due to the naming and shaming effect.

The IMO Secretariat suggested that each participating ship have its own account and that checks be done on a random basis. EMSA referred to a 'virtual wallet' attached to the ship identification number (IMO number). Amendments of the BDNs will be necessary, before these could be used for enforcement purposed. New enforcement tools, documentation but also new skills will be needed, if the system will not be purely paper based. For verification purposes SafeSeaNet could be very useful (but it would depend on the design of the system). The option of establishing a new entity for enforcement should be considered in further detail. For the use of the Long Range Identification & Tracking System (LRITS), the SOLAS convention would need to be amended to make sure LRIT could be used in that way. However, it is more likely that it could be used in the context of a global scheme than in a regional scheme.

IETA explained that verifiers could look at all BDNs associated with a ship, the quality of the fuel going on board and the effectiveness of the equipment. It could also be feasible to ask for calibration certification for the bunker barge. Bunker notes should be the basis of monitoring. The WSC stressed the need to have a MBM that will affect the price signal and push the industry to reduce emissions. The Norwegian NOx tax has elements of interest which could be used when designing an EU scheme (NO). FI mentioned the Sulphur Directive for which similar enforcement issues arise.

The IMO Secretariat made a closing comment and pressed Member States to ratify MARPOL Annex VI and vote for the adoption of the EEDI in July 2011. Finally, the IMO Secretariat asked DG CLIMA to strengthen its outreach policy and use its diplomacy, to push third countries with a view to adopting a global IMO led measure.

List of acronyms and abbreviations

BIMCO	Baltic and International Maritime Council	
CEFIC	European Chemical Industry Council	
CESA	Community of European Shipyards Association	
	European Association for Forwarding, Transport, Logistics and	
CLECAT	Customs Services	
CMIA	Carbon Markets and Investors Association	

	Directorate-General for Enterprise and Industry. European	
DG ENTR	Commission.	
	Directorate-General for Maritime Affairs and Fisheries. European	
DG MARE	Commission.	
	Directorate-General for Mobility and Transport. European	
DG MOVE	Commission.	
ECC	European Cruise Council	
ECSA	European Community Shipowners' Associations	
EMEC	European Maritime Equipment Council	
EMSA	European Maritime Safety Agency	
ESC	European Shippers Council	
ESPO	European Sea Ports Organisation	
EUDA	European Dredging Association	
EUROCHAMBRES	European Association of Chambers of Commerce and Industry	
EUROPIA	European Petroleum Industry Association	
FEPORT	Federation of European Private Port Operators	
IACS	International Association of Classification Societies	
IBIA	International Bunker Industry Association	
ICS	International Chamber of Shipping	
IETA	International Emissions Trading Association	
IMO	International Maritime Organization	
INTERTANKO	International Association of Independent Tanker Owners	
INTERMANAGER	International Ship Managers Association	
MIF	Maritime Industries Forum	
OCIMF	Oil Companies International Marine Forum	
Т&Е	Transport and Environment	
UNFCCC	United Nations Framework Convention on Climate Change	

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67	T&E	HEMMINGS Bill
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2nd Meeting

REDUCING GREENHOUSE GAS EMISSIONS FROM SHIPS

MINUTES OF THE SECOND MEETING OF THE SHIPS WORKING (WG Ships) GROUP 6

22 & 23 June 2011

at the Albert Borschette Building, BRUSSELS

These minutes summarise the discussions in the second meeting of the ECCP Working Group on ships. The ECCP WG was set up to provide input to the Commission in its work to develop and assess options for the inclusion of international maritime transport in the EU's GHG reduction commitment should there be no sufficient international agreement addressing these emissions. The ECCP brings together relevant stakeholders, to discuss and prepare the further developments of the EU and the modalities of reducing GHG emissions from ships. This meeting was the second in a series of three meetings foreseen to consider a list of topics important to the maritime sector and focused on available data, use of revenues and evasion. All presentations referred to below are available, as well as a list of organisations represented in the group at: http://ec.europa.eu/clima/documentation/eccp/second_stakeholder_en.htm

These minutes record the views expressed by representatives present in the Group.

Introduction

The European Commission (COM) introduced the meeting by providing an overview of the agenda on maritime emissions issues, especially regarding the next IMO meeting in July, which will be important for the adoption of an Energy Efficiency Design Index (EEDI). COM presented the objective set in the new Transport White Paper, i.e. a reduction of at least 40% of EU shipping CO₂ emissions (50% if feasible) in 2050 (from 2008 levels). As requested in the first ECCP meeting, data was provided regarding the number of port calls in Europe by COM and IHS Fairplay. COM pointed out that the terms of reference of the impact assessment are available on the Commission's website (request of FI and UK).

For the next ECCP meeting

FI, RO and DE underlined to need to analyze the legal issues and challenges that could arise when implementing a regional system, especially those linked to evasion. On this note NGO Climate Earth informed the stakeholders about their study on the legal aspects related to EU unilateral action which will be available. Finally, DE and FR requested the COM to clarify open legal questions especially as to the compatibility of a regional scheme with the international law of the sea and with WTO rules. DE further requested the Commission to look in how far a policy measure could combine high environmental effectiveness with low evasion risks.

Regarding the Impact Assessment, T&E requested the Commission to look at all the regulatory options and assess them on the basis of their potential to create substantial emissions cuts and cuts quickly within the sector.

There was strong interest in the COM's selected Impact Assessment contractors presenting to the next ECCP meeting.

In the beginning of the meeting, many stakeholders underlined that a global measure is preferable over a regional scheme.

Slow steaming

After the presentations made by Seas at Risk and the National Technical University of Athens (NTUA), an intensive debate raised the following different issues.

Most of the stakeholders agreed that reducing speed can contribute to GHG emission reductions. Several stakeholders also considered that slow steaming is a part of the solution to reduce GHG emission, but it cannot be considered as a single option (Sea at Risks, BE, DE, Öko Institute) and it has to be considered at a global level (DE, FI, UK, FR).

Seas at Risk underlined that speed reduction is the most cost-effective way to reduce emissions and that the adoption of an EDDI is not the solution for short term action. Reducing speed is also considered by some stakeholders (Öko Insitute, BE) as inefficient to ensure absolute emission reduction, contrary to an MBM. Seas at risk expressed the idea that an MBM and speed limits could be combined, for example by creating a system that forces actors to pay for going faster.

Several stakeholders (BIMCO, ESC, ICS, ESCA, WSC, FR, FI, ECC) are against a mandatory scheme and underlined the need to differentiate between ship types. If speed limits are introduced, flexibility is required for its implementation (SE, ESC, ECSA, FI, FR).

It was argued that there is no correlation between fuel prices and speed (WSC, Öko Insititute, BIMCO). The WSC explained that the important increase in the price of fuel between 1990 and 2007 had a limited effect on the speed of ships and that a fuel levy, would have no stronger impact. A mechanism should be found which will drive improvements within the sector itself (WSC).

Others (Seas at Risk, NTUA) considered that increasing the fuel price will have a direct effect on speed but the NTUA and ESC recognized that the speed of ships is not only driven by fuel prices, but also by market requirements.

The safety issue was also pointed out by the UK and ICS. UK considered that traffic congestion in ports due to slow steaming would be a major safety concern.FI raised the 'land bridge' issue: countries highly dependent on shipping will be penalized by a reduction of speed. EL supported this view as well. Sea at risks recognized that this issue has to be discussed.

Several stakeholders (NW, SE, NL, Intermanager, DE, ESCA, FR) requested more analysis on this topic. The Seas at Risk study final report will be available in October 2011. Several stakeholders (FI, UK, BE, DE, ECSA, ICS) were of the opinion that a flexible measure, which gives incentives to a broad range of CO2-reduction options, is preferable.

Regional tax/ Hybrid system

Two presentations were made by T&E, on the one hand, presenting a solution based on a regional tax and by the Center for Transport Studies, on the other hand, presenting a solution that combined a tax based on fuel consumption for small vessels and a cap and trade scheme for large vessels. This hybrid system is designed to involve progressively all actors and non-EU/EEA countries.

T&E also underlined that the emissions reduction has to be done in the shipping sector. WSC shared the view that the reduction must be internal. However, he pointed out that the increase of fuel price in the 90's had a major effect on the fleet efficiency.

Seas at Risk considered that whatever the system will be, it have to provide absolute emission reduction.

Several delegations (UK, NW, WSC) considered that a regional tax could be very complex to implement, especially due to the administrative burden.

BE expressed their preference for an MBM, and others specified that an MBM should be seen as transitory measure (ECC). ECSA stated its preference for a global bunker levy but shared the view of the ECC, that an MBM would be necessary to achieve absolute reductions and achieve the 40% emissions reduction target set in the White Paper, to complement technical and operational measure.

It was questioned whether an MBM is able to create multiple accelerators to provide incentives to improve the efficiency of the sector (ECC). ECC explained that emissions reductions could not be achieved with zero cost, especially in the cruise industry. If this was the case, the cruise industry would have done so already. However, some stakeholders (CESA, T&E, Seas at Risks,) considered that some measures could cost nothing. CESA pointed out that 35% reductions without any cost are possible.

ESC considered that a tax would not bring any substantial emission reduction.

CY is against any regional system, including a system capped. EL does not support a regional measure. It called for the EU MS and IMO to achieve an international solution. It stated that in developing a regional measure, the EU should pay particular attention on how it will affect certain MS, in particular Greece, where it is essential to keep shipping services between islands. EL will submit their comments on this issue in writing.

Several stakeholders (ICS, BE, DE, FI, UK, FR, EMEC, CY) raised the risk of evasion by implementing a regional system. However, DE, UK and FI stressed the need to analyze any solution that can lead to a global system. ICS consider that if a regional system exists, it must be flag-neutral.

Öko Intitut underlined the need of equity between the modes of transport and therefore all sectors need to contribute to the GHG emission reduction.

Use of Revenues

The following views were expressed by the stakeholders after the two presentations (Use of Revenues by COM – the Norwegian NOx Fund by NO).

Some stakeholders reaffirmed the need to have a global solution as opposed to a regional one (ICS). ICS was positive about the ability of the IMO to come forward with a solution after the go ahead from the UNFCCC.

A question on how compliance is ensured in the context of the NOx Fund was raised, due to the fact that contributions are made on a voluntary basis by the industry. NO explained that compliance was ensured by the "participant agreement" between the government and the industry and penalty processes.

The benefits of LNG were raised by SE. LNG creates greater CO2 emission reductions compared to the traditional bunker fuels (SE, NO). It reduces CO2 emissions by 20% (ICS, SE), NOx emissions by 90% and sulphur emissions very close to zero (SE). According to ICS, LNG seems like an attractive solution but could create important damages in the case of a leakage (even 1%) as LNG is predominantly comprised of methane, a potent global warming gas.

NO stated the need to look into all possible options so as to achieve the 2 degrees target and stated that all sectors would have to incur costs to reach that target. T&E encouraged COM to look into solutions to handle NOx emissions from ships, in conjunction with DG ENV.

Distribution of revenues to third countries

SE noted the interest of the EU to use revenues differently over time and keep those within the European Union in the short term. When expanding the regional system, the revenues could be distributed on a larger scale, thereby considering the Common but Differentiated Responsibility (CBDR) principle.

According to Oxfam international, any EU regional system should include financial obligations to set aside revenues to a green fund or channel funds directly to developing countries for climate action, especially on adaptation, in accordance with the pledge of Copenhagen made by the EU. ICS agreed in that part of the revenues should indeed be spent on mitigation and adaptation in developing countries. ECSA expressed its concern about the use of revenues that should not be hypothecated for mitigation.

When developing a global system within the UNFCCC and IMO the distribution of revenues to developing countries for climate action would be an absolute condition (T&E). However, according to T&E, in the context of a regional measure, it would be expected that the revenues would not all go back to the industry, as is the case for road transport. The Commission recognises that, if the EU is forced to take regional measure, the use of revenues can be useful to build a global system.

Distribution of revenues to the sector

Other stakeholders stated that the revenues should be kept within the sector (BIMO, ECC, CMIA, CESA) – and shared their concern about the shipping industry becoming a 'cash cow' (BIMCO).

Any regional MBM should be designed primarily to reduce emissions (ECC, UK, BIMCO), the shipping industry should not pay for a measure which does not reduce emissions. There should be a strong link between CO2 emission reductions and the raising of revenues (ECC). The revenues gained should be used for efficiency improvements (ICS). By keeping revenues within the sector, distortion of competition could be minimised (CESA): CESA reiterated that 'cleaner' shipping would be beneficial for the industry and that the expenses incurred to reach more efficient levels, should be seen as investments rather than costs. If non EEA flagged ships were to be covered as well, these should then also have access to the funds (BIMCO).

DE has no final position on the use of revenues. DE currently earmarks auction revenues from the EU-ETS in a fund for national and international energy and climate projects. As a preliminary view, it was stated that for any instrument, the shipping industry would have to have access to revenues generated and that a fair distribution of revenues for land locked countries would need to be ensured. DE stressed that it put forward a submission to the IMO in which it lay down three possible uses of revenues generated by a worldwide ETS: Compensation of economic impacts on developing states; R&D and technological support to promote mitigation and adaptation in the maritime sector and contribution to international climate finance.

DK mentioned the CO_2 tax which is recycled in process intensive companies as long as those have an energy management plan.

NO explained that in that in the case of the NOx Fund, the government introduces the tax but the earmarking is happening in the industry. CMIA stated that the revenues should not be given to the Member States and mentioned the NER 300^{12} , which constitutes a good example of money being set aside to help finance industry project developments. The UK was attracted by the example of the NOx Fund, particularly as it avoids the hypothecation of revenues.

FR does not have a final view on how the revenues should be used as of yet – part of the revenues should be used to prevent carbon leakage.

ECSA asked the Commission about its position regarding the States aids. The Commission mentioned that free allocation is not considered as State aids. However, this issue has to be further analysed depending on the use of revenues.

Avoiding Evasion

The following views and concerns were expressed after COMs introductory presentation. According to the IMO, an EU system would inevitably create more evasion risks than a global scheme.

The ECC requested the Commission to refer to the act of legally evading the applicability of a measure as avoidance, rather than evasion.

For more information please refer to the following link

¹² The NER 300 will be funded from the sale of 300 million emission allowances held in the New Entrants Reserve (NER) of the EU Emissions Trading System (ETS). It aims to encourage private sector investors and EU Member States to invest in commercial low-carbon demonstration projects.

http://ec.europa.eu/clima/policies/lowcarbon/ner300_en.htm.

Several stakeholders considered that the risk of evasion in highly dependent on the geographical scope of the scheme (ESPO, SE, FI) and of the type of instrument (ESPO, ICS, Oko Institut). ESPO noted that as the scope would be reduced, a loss in terms of environmental effectiveness would inevitably occur. ESPO does not currently have a position on which scope would be the most suitable. DE considered that evasion could be avoided by setting the largest scope as possible.

According to IETA, long lasting port inspections and bill of lading confirmations could delay the whole supply chain – this should be looked at in further detail.

RO considered that the risk of avoiding the EU Port should be well analysed, especially in the Black Sea. FR raised the evasion possibilities in the North African ports.

RO, supported by BE, also considered that there is a risk of evasion of the industry, not only the logistics.

The infrastructure and the ability of states to quickly develop their infrastructure (esp. concerning ports and transport from and to ports) in the third country States is also an important issue to analyse when discussing on evasion (UK, DE, FR). A regional measure could serve as an incentive for further port developments and thus could increase the risk of evasion over time. This has to be taken into consideration when studying the impact of a regional scheme (DE).

The avoidance of evasion is a priority for the UK: the environmental effectiveness of the system should be ensured and distortion of competition should be minimised. Credibility of the system should be preserved. The bill of lading could be useful to check compliance.

FR informed the stakeholder that she is carrying out a study on evasion that will be available at the end of year. FR underlined the need to take foreign countries on board of an EU instrument to avoid evasion. The Commission pointed out that regional partnerships, such as EuroMed, are helpful in this context.

SE requested further analysis on how much money would be lost because of evasion.

BIMCO	Baltic and International Maritime Council	
CEFIC	European Chemical Industry Council	
CESA	Community of European Shipyards Association	
	European Association for Forwarding, Transport, Logistics and	
CLECAT	Customs Services	
CMIA	Carbon Markets and Investors Association	
СОМ	European Commission.	
ECC	European Cruise Council	
ECSA	European Community Shipowners' Associations	
EMEC	European Maritime Equipment Council	
ESC	European Shippers Council	
ESPO	European Sea Ports Organisation	
EUDA	European Dredging Association	
EUROCHAMBRES	European Association of Chambers of Commerce and Industry	
EUROMOT	European Association of Internal Combustion Engine Manufacturers	
EUROPIA	European Petroleum Industry Association	
FEPORT	Federation of European Private Port Operators	

List of acronyms and abbreviations

IACS	International Association of Classification Societies	
IBIA	International Bunker Industry Association	
ICS	International Chamber of Shipping	
IETA	International Emissions Trading Association	
IMO	International Maritime Organization	
INTERMANAGER	International Ship Managers Association	
INTERTANKO	International Association of Independent Tanker Owners	
NTUA	National Technical University Athens	
OCIMF	Oil Companies International Marine Forum	
Т&Е	Transport and Environment	
UNFCCC	United Nations Framework Convention on Climate Change	
WSC	World Shipping Council	

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56	CMIA	AUSTIN Miles	
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57	DEFENSE FUND	2	
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59	EUROMOT	ZEPF Paul	
60	EUROPIA	CHEVALLIER Franck	
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Guest / Speaker		
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3rd Meeting

REDUCING GREENHOUSE GAS EMISSIONS FROM SHIPS

Draft MINUTES OF THE THIRD MEETING OF THE SHIPS WORKING (WG Ships) GROUP 6

15 & 16 November 2011

at the Charlemagne Building and the Management Centre Europe, Brussels

These minutes summarise the discussions in the third meeting of the ECCP Working Group on ships. The ECCP WG was set up to provide input to the Commission in its work to develop and assess options for the inclusion of international maritime transport in the EU's GHG reduction commitment should there be no sufficient international agreement including these emissions in reduction commitments by the end of 2011. The ECCP brings together relevant stakeholders, to discuss and prepare the further developments of the EU and the modalities of reducing GHG emissions from ships.

This meeting was the last in a series of three two day meetings foreseen to consider a list of topics important to the maritime sector. At this meeting, the possible policy options and the Impact Assessment Study were presented. The meeting also considered the appropriate emission reduction level and the potential for emission reductions in shipping, the question of offsetting, as well as the relevant legal framework. The issue of short-lived climate forcers and the question of how regional action could serve as a platform for broader action were also addressed.

All presentations referred to below are available, as well as a list of organisations represented in the group at : http://ec.europa.eu/clima/events/0047/index_en.htm

These minutes record the views expressed by representatives present at the meeting.

Introduction and Review of ECCP I and II and IMO Developments at MEPC 62

The European Commission (COM) opened the meeting by providing an overview on the previous ECCP meetings and by outlining the main developments within IMO, in particular the adoption of the Energy Efficiency Design Index (EEDI) at IMO's Marine Environment Protection Committee (MEPC) meeting in July 2011. COM noted that the EEDI was adopted through a vote and that the EEDI in itself did not sufficiently address the GHG emissions from international maritime transport as it only applies to new ships. COM noted that although it considered the ideal solution to be a global solution and therefore would continue to support the progress within IMO on market-based measures (MBM), COM is investing time and effort into developing and assessing options for the inclusion of international maritime transport in the EU's GHG reduction commitment. It was also highlighted that a possible COM proposal tabled next year would have no effect on the ground before 2017/2018 allowing for more time for the development of a global solution. A COM proposal could serve as an accelerator in the IMO discussions.

Support Contract for EC Impact Assessment

AEA Technology introduced, as the leader of the consortium of the support contract for the EC impact assessment, their methodology and the planning of their work. The launch of the impact assessment process was welcomed by several delegations (DE, ESC, FI). DE stressed the importance of the impact assessment of measures and referred to the inclusion of aviation into the EU-ETS.

ICS, supported by ECSA, called for transparent assumptions. In this context, WSC noted that the MACC curves have to be taken into account carefully. Several precise concerns were raised such as the risk of modal split (ESC, ECSA), the need to take into account the diversified circumstances, such as winter conditions, within the EU (FI), the use of revenues to tackle climate change globally (DE, Oxfam) or to help the sector to reduce its emissions

(WSC), the impact on fuel and commodities prices (WSC, IMO) and the consideration of existing regulation on sulphur, NOx and others (ECSA).

The effects of the EU measures globally was stressed by DE, Oxfam and the IMO. DE recommended starting the analysis with the intra-EU option. In addition it may be useful to analyse in depth only those options which are feasible. The IMO indicated that developing countries might be affected by a regional measure.

AEA Technology pointed out that the model used, TIMES, is a global model that integrate most of the concerns, especially the consideration of existing regulation, the recycling of revenues and the modal split. A methodology to select relevant commodities to be assessed will be set.

COM underlined its openness to discuss with stakeholders the assumptions made for the impact assessment. COM agreed to consider the possibility of involving experts in the impact assessment process.

Main Policy Options

COM introduced the possible policy options to be analysed in the impact assessment.

BIMCO, supported by NL, SAR, EDF, stressed that the key issue is the effectiveness to address climate change.

All stakeholders indicated their preference for a global scheme. However, all Members states who took the floor (DE, FI, NO, NL, DK, SE) indicated their openness to elaborate and/or discuss a regional measure in parallel with the IMO process with the goal to serve as a basis for or advance a global scheme. The IMO indicated that for some policy options, a regional measure cannot serve as precursor for a global scheme. NGOs (SAR, EDF, T&E) encouraged the EU to take action. ICS, ECSA and Intermanager are not in favour of an EU measure.

Regarding an ETS, some stakeholders (BIMCO) considered the administrative efforts as an issue, whereas NL considered that it is mainly an issue for public authorities. The risk of evasion (BIMCO) was raised. The openness of an ETS was also discussed. Stakeholders (BIMCO) and Member States (DE, EL) considered that a closed ETS would be problematic. DE, SE, NO, UK, IETA, Transport and Environment supported an ETS. UK indicated that they preferred an ETS with 100% auctioning and no earmarking. EL expressed its opposition to an ETS.

Regarding a compensation fund, the issue of setting carbon price was raised by FR. The possibility to raise revenues for global climate change finance was also mentioned (FR). Regarding an industry managed compensation fund, several Member States asked for clarity to identify who will manage the fund (FR, UK). FI, EL supported the compensation fund option.

Regarding mandatory emission reductions per ship, several stakeholders (BIMCO, WSC) considered that there is a risk of stopping trade if the emission of each ship is capped on historical performance. Taking into consideration the efficiency of the ship, such as the one set by the EEDI or the EEOI, is clearly preferred by several stakeholders and Member States (DE, WSC). Regarding the EEDI, CESA indicated that its opposition to apply this on existing ships. The feasibility at the EU level was also questioned (DE, WSC).

Regarding the tax, DE stressed the importance of the legal issues and in particular its compatibility with the energy tax directive. EUROPIA is opposed to any system applying to fuel suppliers.

Several Member States and stakeholders agreed that the responsible entity should be the ship (DE, FI, NO, IMO). However, CE Delft indicated that it is possible to leave this choice open.

Seas at Risks recalled the sensitivity to the maritime sector on the fuel price and called for a range of measures and not only one. They reiterated the preference for speed limits.

EDF, supported by IETA, indicated the need of a robust compliance mechanism.

The IMO stressed that the issue of ships calling once into EU ports should be addressed, such as the flexibility in the design of the scheme. Building a scheme on historical emissions seems to be challenging according to the IMO.

DK underlined the importance of flag neutrality.

COM reiterated its wish to achieve a global agreement in the IMO. In this context, the Commission underlined that, if a proposal is made next year, it will take several years to be implemented at the EU level and therefore the IMO has still time to deliver. Any EU measure will also be fully compatible with international laws.

Legal Issues

After presentations by the European Maritime Safety Agency (EMSA) and ClientEarth setting out the international legal framework of relevance to the inclusion of international maritime transport in the EU's GHG reduction commitment, no participant underlined a possible incompatibility of the considered policy options with international law. Some were of the view that all considered policy options could be designed in a manner that is compatible with international law (T&E, DE, CY, WSC). DE pointed out that DE had analysed possible legal issues as well as the opportunities and barriers created by international law to a global MBM before making an ETS proposal to IMO and that preference should be given to the option that is most environmentally effective whilst being legally compatible. DE also remarked that parts of the Advocate General Kokott's Opinion in case C-366/10 on the compatibility with international law of the inclusion of aviation in the EU ETS were of relevance for shipping. Finally, DE insisted that the role of bilateral agreements with third countries on shipping also had to be considered.

When questioned why they preferred a "port entry"-based measure, ClientEarth responded that in terms of scope, port-entry raised less legal issues than a system based on distance or time for reasons of proportionality, although the evasion risk was lower in a distance/time-based scheme. ClientEarth also clarified that outgoing ships could be covered by a "port entry"-based scheme if allowances had to be surrendered on an annual basis by the ship, as liability would arise the next time the ship would return to the port.

The Commission's Legal Service highlighted that under UNCLOS and WTO law, continuous international efforts to reach agreement should and are being undertaken. Moreover, the Legal Service recalled that a future EU measure should be compatible with a system adopted at international level. Any risk of double regulation could be more easily avoided in a "port entry"-based scheme than in a scheme based on distance or time.

<u>Generating Offsets through a Sector Based MBM/Access to Reductions in Other Sectors –</u> <u>International Credits</u>

Several Member States and stakeholders stressed the need to strike the right balance between in-sector and out of sector reductions/offsetting. DK, ICS and WSC highlighted a perceived need for offsetting to enable the shipping sector to achieve its reduction targets cost-effectively, as there might be technical and operational limits to the reductions that are possible in the shipping sector. Others emphasised the wish to limit offsetting to encourage in-sector reductions (DE, SE).

Level of Reductions

The EC introduced a synthesis of the studies made on MACC curves in perspective of the EU objectives, followed by a presentation of DNV on the possible level of reduction achievable in the maritime sector and a presentation by ECSA on what the sector can deliver.

ECSA indicated that the shipping sector is committed to reduce its GHG emissions. However, shipping is the servant of the world trade and is the most effective mode of transport. ECSA recognised that the work in the IMO has been slow due to its political background. A reduction of 50% by 2050 compared to 2005 is achievable, as well as a relative reduction of 20% by 2020 compared to business as usual. To this end, EEDI and SEEMP are not sufficient. Regarding global climate change finance, the shipping sector will contribute, but it should not be the only one. ECSA also stressed the risk of modal split and evasion in case of regional measure. ECSA also indicated that the majority of ship owners is in favour of a global compensation fund.

The issue of market barriers was raised by several participants (CE Delft, DE).

Regarding the EU objectives, DE recalled that the Council objective was made in the context of Copenhagen and stated that for shipping a cap of -50 % until 2050 compared to 2005 levels might be feasible.

Regarding the risk of modal split, SE considered that will not happen in most cases, as road and rail are facing similar pressure. SE, supported by ECSA, called for incentives to support the maritime industry to overcome market barriers.

The IMO stressed that the EU emissions reduction is linked to the delocalisation of its industry to other parts of the world and therefore the increase of emissions of the shipping sector may be linked to this development.

CESA, supported by EMEC, stressed that, even if shipping is the most effective mode of transport, the current fleet is not efficient and, taking a lifecycle approach, 97% of CO2 emissions of a ship is emitted during its operation.

EMEC noted that even though shipping is the most efficient way of global transport – emitting about 4 % of the global CO2 emissions, transporting in excess of 95% of global transport – there is room for improvement; the most effective driver is cost saving through energy/fuel saving.

WSC stressed that ship operator have a limited leverage over the ship design.

Short Lived Climate Forcers

Transport and Environment made a presentation on the work they have done on short lived climate forcers. The IMO informed that work has begun on this issue at the global level. Several participants recalled that existing regulation have an impact on black carbon, such as the EEDI (ICS) and the sulphur rules (SE). DE indicated that we already have a good enough knowledge of black carbon to know that it is a concern.

Market Barriers

COM highlighted that different studies undertaken by the IMO, DNV, CE Delft and IMarEST had revealed the great potential to reduce GHG emissions from shipping at low or negative abatement costs. Nevertheless, GHG reduction measures are not being taken up widely by the industry, possibly due to market barriers to the introduction of abatement solutions.

Following a presentation by Maddox Consulting outlining their intended workplan to conduct a COM-financed market barriers study, SE encouraged Maddox Consulting to also consider parallels in other sectors such as market barriers to eco-driving in long-distance truck freight/road voyage. BIMCO considered that market barriers related to the questions of who is the owner, who pays the fuel bill and who benefits from the measures, as well as the fact that retrofitting is expensive. CESA assumed that behavioural market barriers were of greater importance than technological market barriers and proposed the development of criteria to be taken into account by banks when deciding whether to finance ships.

EMEC asked the question as to how the maturity of the technologies to be studied by Maddox Consulting will be measured. This needs to be considered carefully as many of the longer term technology developments which have a large potential to reduce GHG emissions are relatively immature and may not be available for widespread use in the timescales assumed in many forecasts.

ICS expressed concerns about the study being too generic and preferred targets being imposed on the industry rather than measures/solutions.

ECSA emphasised that surveys undertaken by the Danish Shipowners' Association had revealed that measures to reduce GHG emissions in the maritime transport sector are being taken up and said that the relevant data was publicly available on the website of the Danish Shipowners' Association.

IMO said that in an ideal MBM, part of the revenues generated through the measure should go back to the industry as in the MBM proposal by Japan to IMO since this would lead to the fastest emission reductions. Making part of the revenues available for R&D and for improving port and sea infrastructure in developing countries could also lead to reductions, while a general compensation scheme for developing countries might not result in (fast) reductions from the shipping sector. CESA stated that it would only be possible under a regional and not an international scheme to return all revenues to industry and that the most important emission reductions were possible in a system in which 100% of the revenues would go back to the industry.

Regional Action as a Platform for Broader Action

For a possible EU measure to be perceived as successful by COM, it would have to stimulate other states, regions and international organisations (IMO and UNFCCC) to adopt measures to reduce emissions from the shipping sector.

Several Member States and stakeholders insisted that for a possible EU measure to serve as a platform for broader action, it would have to be compatible with international law (NO) and promote IMO action (ES, FR, NL, NO). NL noted that the COM/EU would have to be active in the IMO debate to ensure compatibility with possible IMO action. Some participants argued that the EU system/systems would also have to allow for gradual linking with other compatible systems (FR) and that close cooperation, in particular with neighbouring states, was essential to avoid evasion (FR, SE). T&E considered the use of part of the revenues generated by the EU measures as crucial to promote broader action and FR suggested using some of the revenue to encourage linking and cooperation with neighbouring states. It was also highlighted that good communication was crucial to support broader action (NL, SE). ECSA noted that a COM proposal could help the EU to speak with one voice in future MBM debates within IMO and thus positively contribute to the IMO discussions by helping narrowing down the MBM proposals.

SE insisted that to facilitate expansion of the regional system to other states/regions it might be better to keep the shipping scheme separate from the existing ETS.

Summary and Close of ECCP Process

COM closed the ECCP process by thanking all Member States and stakeholders for their valuable contributions, which will be taken into consideration by COM in its future work on the inclusion of international maritime transport in the EU's GHG reduction commitment. Stakeholders can provide further input through written submissions or by participating in an online consultation on "Your Voice in Europe".

COM highlighted the consensual view that a global solution to tackle GHG emissions from maritime transport was the preferred option. It is COM's intention to continue being closely involved in the IMO process and to engage with neighbouring countries and other third states. COM stressed the existing obligations under EU legislation, requiring COM to act on maritime emissions. A proposal for including maritime transport emissions in the EU's GHG reduction commitment is foreseen in the Commission Work Programme for 2012. COM stressed that a proposal tabled next year would not be likely to have effects on the ground before 2017/2018, leaving considerable time for global action to be taken forward. A future COM proposal would address issues of distortion of competition and evasion, be compatible with international law and strike the right balance between in-sector reductions and offsetting. Any EU action should serve as a platform for broader action.

IMO invited COM to submit the outcome of relevant studies to pertinent IMO bodies as they could be useful also in the context of global regulations.