Stakeholder meeting on monitoring, reporting and verification (MRV) of greenhouse gas emissions from ships, 5 December 2012

Main conclusions from the meeting

DGs CLIMA and MOVE welcomed 120 participants to this stakeholder meeting dedicated to MRV of greenhouse gas emissions from ships. In the initial statements and speeches, the concept of a staged approach to reduce greenhouse gas emissions from ships as announced by Commissioner Hedegaard and Vice-President Kallas in their joint statement of 1st October 2012 has been explained. The key element of this approach is the focus on the discussion and decision making process in the IMO on market-based measures and intermediate regulatory measures addressing existing ships and operational measures. This includes the invitation to the EU's international partners to work jointly and constructively towards the necessary decisions by the IMO. Based on the knowledge acquired during the preparatory work, the legislative proposal of the European Commission for MRV should serve as pilot project for a global MRV. MRV is also the necessary basis for any market-based or regulatory measure. Furthermore, it would deliver data on the development of greenhouse gas emissions as robust basis for political and company-internal decision making.

At this meeting, various initiatives to monitor and report fuel consumption, CO_2 emissions, energy efficiency and other related parameters in the maritime transport sector have been presented. Some of these initiatives are company-internal tools (such as Norden's 'Masters Operational Environmental Performance System') to manage and optimise the processes and operations as well as to validate the achievement of emission reduction targets. Others are based on tools offered by private initiatives or service providers on a commercial basis (such as the FRAM project in Norway, the Carbon Positive Programme for Ships (CPPS) and the GL Environmental Passport) which could also include interfaces to other tools/ reporting requirements and offsetting mechanisms. This indicated that the companies being active in this field see an added value of reliable data as basis for the optimisation of processes (i.e. operational efficiency) and to enhance transparency in the sector. As a result, fuel costs can be substantially reduced.

Several participants referred to existing international conventions such as MARPOL and SOLAS which require the monitoring of several parameters related to fuel consumption and quality as well as energy efficiency (e.g. distance travelled, cargo carried). Such data are checked by Port State Control. Furthermore, as from January 2013, ships will be required to have a 'Ship Energy Efficiency Management Plan' (SEEMP). This includes monitoring of ship efficiency relevant information.

There is also a demand for data on CO_2 emissions and energy efficiency from users of maritime transport as initiatives such as the Clean Cargo Working Group (CCWG) demonstrate.

Overall, all stakeholders agreed on the need to monitor and report fuel consumption and CO_2 emissions.

An important question has been the scope of data to be monitored and reported. Several participants representing ship owners preferred a lean approach restricted to fuel consumption and CO_2 emissions. Other participants underlined that monitoring and reporting of data allowing the determination of ships' energy efficiency would provide a significant added value. Some participants also highlighted that the MRV system should also cover further parameters such as weather conditions, currents, and hull condition allowing for more detailed analyses. In this context, some participants highlighted that efficiency data should be only carefully use to establish efficiency baselines to avoid that early movers are disadvantaged (use of older data as baseline preferable).

Concerning the use of the 'Energy Efficiency Operational Indicator' (EEOI) which has been introduced by the IMO in 2011 as example for indicators to express ships' operational performance, some stakeholders expressed concerns regarding its maturity. In this context, the impacts of trade imbalances on the results have been mentioned. Some participants suggested to consider at least the distance travelled to express the operational efficiency of ships.

Most of the presented monitoring and reporting systems are based on daily reports. However, concerns have been expressed by several stakeholders regarding the confidentiality of such data.

Regarding the question of who should be involved in MRV, it seems to be widely agreed by the participants that the ship should serve as compliance entity and should be subject to possible enforcement measures.

During the discussions, different views have been expressed regarding the entity receiving the emission reports from ships/ ship-owners. Some favour port state authorities, other central authorities, flag states or private bodies.

Several participants consider an important role within the MRV system to be given to third parties such as classification societies. The existing recognition scheme under Regulation (EC) No 391/2009 could be used or a dedicated accreditation system could be set up.

During the discussions, it appeared that many participants favour an enforcement of the obligations for MRV ensured by Port State Control.

Monitoring of CO_2 emissions and energy efficiency can build on data monitored on board of most ships and on documents which are already today required or available such as log books, bunker delivery notes or noon-reports. Building on these existing elements seems to be recognised by many stakeholders as a reasonable approach as the additional administrative burden for crews and ship-owners should be minimised. However, concerns

have been expressed regarding the accuracy of data from sources such as bunker delivery notes which do not necessary exactly reflect the amount of fuel consumed. The main reason is the uncertainty of the composition of heavy fuel oil. Methods such as flow meters to measure actual fuel consumption and stack monitoring for direct CO_2 emission measurements are regarded by experts as more accurate although some technical challenges related to temperature variations remain.

It has been a widely shared view that, to the extent possible, electronic tools should be used to facilitate monitoring, reporting and verification. This is already common practise among the pro-active actors in the maritime transport sector.

Several stakeholders expressed the need for guidance documents supporting the implementation of the MRV system. As a positive example, the FRAM project in Norway is currently preparing a set of guidance documents.

Activity based monitoring and reporting of emissions has been presented as another tool to determine CO_2 (and other) emissions as well as energy efficiency. Based on AIS and LRIT position data, distance and speed can be calculated. Together with available information on ship design and engine power, fuel consumption is calculated using validated emission models (such as STEAM). There have been different views if such tools should be used to validate reported data based on ships' fuel consumption or if they could even substitute fuel consumption based reporting.

A need for third-party validation and checking of reported data seems to be widely agreed. Several participants expressed the view that no full validation or verification of all data be required. Risk-based approaches and certification of reporting systematics could be applied instead.

At the end of the meeting, the Commission invited stakeholders to provide additional written comments before the end of 2012. Built on the results of this stakeholder meeting, the Commission services envisage an adoption of a legislative proposal on MRV around April 2013. The preparation of the implementation of a maritime MRV in the EU will be accompanied by further stakeholder consultations in 2013 including another workshop on this issue.