



EU DA 2016 ANNUAL CONFERENCE (TU 15 NOVEMBER 2016)
GLOBAL CO₂ EMISSIONS:
NEW BUSINESS OPPORTUNITIES FOR THE EUROPEAN DREDGERS?"
SUMMARY & KEY MESSAGES

Conference's Summary:

Since the Kyoto Protocol of 1992, the political wheel has been set in motion to prevent the threat from excessive Climate Change. The main attention and efforts have focused on the biggest anthropogenic source of greenhouse gas (GHG) emissions: CO₂ emissions. All human activities need energy for their proper functioning and execution. The most commonly available energy sources being of fossil origin, the carbon footprint of human activities have kept growing along with the development of the global society and economy, sometimes at a faster pace.

In the Paris Agreement, adopted at the Conference of the Parties (COP21) of the Climate Change Convention in December 2015 and in force since 05/11/2016, politicians agreed to set the absolute global target for the rise of the Earth temperature to 1.5°C, and to take differentiated actions at national level and at sector level. Among these sectors, transportation is a significant source of CO₂ emissions and has to contribute to the global reduction efforts. Maritime transport is the lifeblood of modern society, supplying energy, food and commodities as well as catalysing global economic development and prosperity. Although shipping is the most environmentally-friendly and energy efficient mode of mass transport (on a tonne-mile basis), it also needs to contribute its share to the global CO₂ emissions reduction efforts. As members of the shipping community, European Dredgers continuously work on reducing their emissions, by improving fuel efficiency of their equipment (through ship design, better performing engines, etc.) and by improving their best practices to optimise the fuel consumption during operations.

CO₂ emissions reductions however cannot be fully disconnected from the dynamics of the global economy and of global trade, in particular for maritime transport. Therefore, the absolute emission targets set in Kyoto and in Paris cannot be achieved with the implementation of relative measures only, unless the global economy and its related demand for waterborne transport are collapsing. In order to achieve these absolute targets regardless of the developments and evolution in the global economy, political actions and policies targeting the improvement of vessels' performance and efficiency should be complemented with additional measures targeting the reduction of CO₂ concentrations directly from the atmosphere. With their expertise, European Dredgers can contribute to this objective by creating new or restoring marine habitats that are natural carbon sinks, known as Blue Carbon. European industries should pursue their efforts of reducing their CO₂ footprint but should also consider integrating Blue Carbon components into their strategies. European Dredgers can build multipurpose waterborne infrastructures that would also contribute to the CO₂ strategies of the project owners through increased carbon capture and long term storage of CO₂.

After describing political initiatives at IMO, in the EU and in the Netherlands regarding CO₂ reduction measures, the conference presented the possible solutions offered by the European Dredgers.



Programme of the Conference on

Global CO₂ Emissions: New Business Opportunities for the European Dredgers?



Introduction to the Conference Theme and Speakers:

- ▷ **Mr Pieter van der Klis**, Chairman of EuDA Environment Committee, Engineering Manager, Van Oord, *Conference Moderator*



Overview of the International initiatives on CO₂ emissions from ships:

- ▷ **Mr Alistair Hull**, Technical Director of the International Chamber of Shipping, *Overview of the IMO initiatives to reduce CO₂ emissions from ships*



Overview of the European initiatives on CO₂ emissions from ships:

- ▷ **Mr Heiko Kunst**, Policy Officer at European Commission's DG CLIMA Unit B3 for International Carbon Market, Aviation and Maritime, *Overview of the European Commission's initiatives to reduce CO₂ emissions from ships.*



Example of the Dutch initiatives on CO₂ emissions from dredging projects:

- ▷ **Mr Harry Zondag**, Rijkswaterstaat's Strategic Advisor for Dredging Programmes, Projects and Maintenance, *Experiences in tendering with the CO₂ performance scale in The Netherlands.*



Examples of possible solutions from dredging:

- ▷ **Mr Paris Sansoglou**, Secretary General of the European Dredging Association, *Possible Solutions from the European Dredgers*



Open Discussion and Conclusions.



Summary of the Conference's key messages:

- urgent action on anthropogenic GHG emissions is needed and the Paris Agreement on Climate Change, that entered into force on 05/11/2016, is the first binding agreement at global level;
- IMO demonstrated it is taking the lead on reducing CO₂ emissions from shipping with its landmark decisions taken at MEPC 70, adopting a Global Data Collection System (regarding fuel consumption from ships and their related emissions) and a roadmap for the implementation of its CO₂ Strategy; verification of the collected data should be done by recognised organisations (e.g. Classification Societies);
- the total CO₂ emissions from shipping are comparable to the CO₂ emissions from a country like Germany;
- Market Based Measures are necessary incentives to properly implement the IMO CO₂ Strategy, shipowners encourage them and are in favour of a levy fund;
- the EU inspired some of the discussions on CO₂ emissions from shipping in IMO and probably accelerated the decision-making process for the recent landmark decisions; the EU intends to continue its contributions to the global discussions on Climate Change issues;
- effective data on CO₂ emissions from global shipping don't exist yet and the IMO Global Data Collection System should replace the estimates that are the only available data;
- 96% of the CO₂ emissions of all sectors are covered by EU measures, the gap of 4% represents the CO₂ emissions from shipping which, in the near future, should also be included in EU joint efforts for CO₂ emissions reduction; to this end, proposals have been made in the European Parliament to include shipping in the current revision of the Emission Trading Scheme (ETS) Directive;
- EU has made funding (TEN-T) available to support the decarbonisation of all transport modes;
- in the efforts to reduce CO₂ emissions, as the deadlines are fixed (2020, 2030 or 2050), the early movers among the industrial sectors will be faced with a less steep reduction curb of their CO₂ emissions than the late movers;
- the Monitoring, Reporting and Verification (MRV) regulation is the main EU legal instrument for CO₂ emissions from shipping; Dredgers are not excluded from it, but exempted in a first phase because they consume energy to both sail and work and because the most suitable approach to optimise their emissions is project-based rather than ship-based;
- the Dutch administration for infrastructure and environment has set itself the ambitious short term goal of -20% of CO₂ emissions by 2020 (compared to 2009) and to help achieve this goal, Rijkswaterstaat has developed the Dubocalc (Sustainable Construction Calculator) and CO₂ Performance Scale (system certifying the CO₂ performance of companies); the CO₂ Performance Scale is managed independently (by SKAO, the Foundation for Climate-Friendly Procurement and Business) and Rijkswaterstaat can apply the CO₂ Performance Scale to itself;
- the CO₂ Performance Scale is an instrument attributing additional advantages in public tenders to the bidders with the best CO₂ records (and the lowest CO₂ footprint);
- however, approaches aimed at optimising sustainability (including CO₂ emissions) are overall more beneficial and less damaging to the environment than approaches solely CO₂ focused;
- the CO₂ Strategy of the European Dredgers started in 2009; EuDA has established an industry-backed methodology for estimating CO₂ emissions from Trailing Suction Hopper Dredgers (TSHD) and has compiled a short explanatory document, made available on demand (info@euda.be);
- emissions reductions cannot be disconnected from the trends in global economy (and global trade); in the case of European Dredgers, concentrations of numerous powerful vessels and



equipment have reverse the general downward trend in 2010 in Europe (due to a.o. Maasvlakte 2 and the London Gateway projects) and in 2015 worldwide (mainly due to the Suez Canal expansion);

- absolute targets, such as -40% by 2050, cannot be achieved solely with relative measures on emission sources, especially when the global economy is booming; complementary work needs to be done on the atmospheric concentrations of CO₂;
- Dredging is not a problem ... it is part of the solution ! Dredgers can and do contribute to CO₂ emissions reduction, CO₂ offsetting and to mitigation of Climate Change effects; Building with Nature provides a frame to design and implement innovative approaches for waterborne infrastructures including pro-active carbon management;
- Blue Carbon should be part of sustainable strategies for carbon management in coastal zones, specifically for waterborne infrastructures ! Pro-active carbon management strategies include: project-based replanting and upfront investment in large-scale carbon uptake; the use of nature-based designs (e.g. Building with Nature) in carbon management provides opportunities to the dredging industry!
- for Blue Carbon to become a business reality, however, some amount of work needs to be done in both legislative and political circles: Market Based Measures (MBM) need to be established; Blue Carbon needs political recognition from IMO and EU; Blue Carbon needs market certification and a direct link to MBM; the MBM need a properly functioning market;
- EuDA's positive messages and constructive proposals are encouraging for the Commission Officials: cooperation and proactive approaches (willingly providing data and information to the decision-makers) often result in more practical and workable legislations.