

IMERS Synopsis

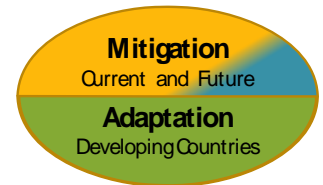
Dr Andre Stochniol, Founder & Director, London, UK



This document outlines an **International Maritime Emission Reduction Scheme (IMERS)**, a market-based scheme comprising a fund investing in GHG emission mitigation which simultaneously provides contributory funding to climate change adaptation, expanding on a well received idea brought to the IMO in 2007.

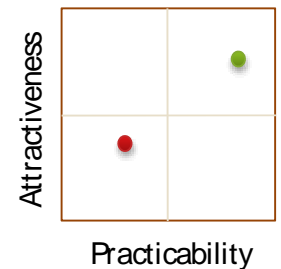
1 A submission MEPC 56/4/9 by Norway to the International Maritime Organization (IMO) presented elements of a possible scheme to reduce CO₂ emissions from ships based on introducing an emission fund. The submission and the IMERS vision both initiated by the author have been well received by many parties.

2 A maritime GHG fund is proposed to be established under the IMO to directly collect and invest funding. The investments comprise mitigation and adaptation, wherein the mitigation is for the current and future maritime emission reductions, while the adaptation funding is for developing countries only, to be managed separately. Here, the adaptation and mitigation parts are assumed equal (50:50).



3 We estimate that the combination of the market mechanism, additional technical and operational industry improvements, including the mitigation programmes paid for by a portion of the funds raised, will reduce the emissions by 0.8% to 1% annually till 2050. The total **emission** impact till 2100 would be **more than halved** due to the reduced growth and the effect of bringing forward step changes by up to 10 years.

4 The details of the scheme are provided below using two main criteria: **Attractiveness and Practicability**. Lessons learned have proved that successful schemes must combine policy appeal and economic efficiency with reliable data and feasible implementation. With some additional political will, **the scheme can be operational even before 2012**.



PRACTICABILITY

SCHEME DESIGN	
• Emission allocation:	-- (None ¹ ; using the UNFCCC SBSTA option 1 – no allocation)
• Allowances distribution:	-- (None needed)
• Participating entities:	Fuel payers for charges; ship managers and/or suppliers for reporting
• Reporting, Verification and Compliance:	Direct electronic; compliance enforced in selected ports, both for the provision of data and payment of charges
IMPLEMENTATION FEASIBILITY	
• Accurate data & availability:	Emission growth: available
• Minimum operational data:	Fuel data , used or delivered: available
• Reuse of existing work, and procedures:	Voyage data for validation; CO ₂ index from real data once the scheme operates, used as a performance measure for ships, routes etc.
• Authorities and their roles:	IMO for governance; World Bank, or similar, to manage adaptation funding
SCHEME PARAMETERS	
• Emission target:	Yes; enclosed calculations done for a target at 2005 level, constant till 2050
• Emission baseline and/or emission growth:	Baseline not needed , and avoided as it is currently commercially inadequate. Emission growth only needed (average 2.1% pa used till 2035)
• Grouping for equity:	Bubbles for containers, bulk, tankers, etc., could further improve the scheme equity and speed up implementation
• Time to implement:	2 years – could be operational BEFORE 2012

¹ The scheme avoids the complex problem of allocating emission allowances to countries, flags, routes or ships, and associated issues, such as lack of a reliable emission baseline, high transaction costs for small emitters etc. It achieves an emission cap on shipping emissions through a hybrid price-quantity mechanism that is linked to established emission markets, thereby delivering the reduction in the most cost effective manner.

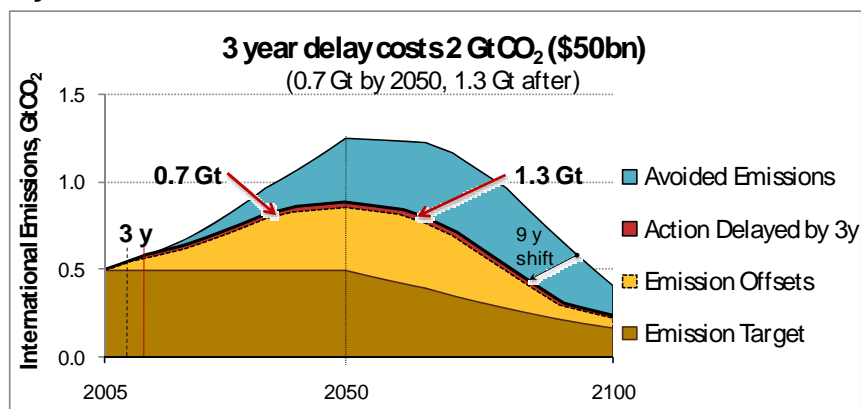
ATTRACTIVENESS

SCOPE AND GOALS	
• Geography:	Worldwide
• Participants:	All vessels > 400 GT
• Emission target:	Global, or per vessel bubbles (containers, bulk, tankers, ...)
• Additional goal:	Adaptation to climate change in developing countries
• Emissions:	International, CO ₂ only at the beginning
POLITICAL APPEAL	
• Common but differentiated responsibility:	Through financing policy for adaptation; differentiation at point of distribution rather than collection
• Impact on competitiveness:	None in sector; negligible outside shipping
• Benefits to participants:	A hassle-free long-term solution, increased cash flow, compliance easily verifiable, long term investment clarity, better image of shipping
• Legal basis & precedents:	Could be under MARPOL; IOPCF - a precedent for a direct fund
COSTS (for 2010, key assumed prices: fuel \$300/tHFO, carbon \$25/tCO ₂)	
• Price impact:	Low: 0.1% , equivalent to adding \$1 to price of \$1,000 of imported goods
• Participant costs:	Negligible (20 minutes reporting time for ship managers per month)
• Unit emission charge:	\$10/tCO ₂ (linked to emissions and carbon price)
• Operational costs:	Under 5% (a centralized solution)
EFFECTIVENESS (assuming 500 MtCO ₂ baseline in 2005; for 1GtCO ₂ – multiply results by 2)	
• Emission mitigation:	Mitigation of 15 GtCO₂ by 2050 (50% of it is emission avoidance)
• Improvements:	0.8% - 1% annually , and a technology breakthroughs fund
• Adaptation:	\$2bn/pa, for developing countries (e.g. contribution to the Adaptation Fund)
• Market linkages:	Cost-effective through usage of carbon markets, and a dedicated maritime emission registry
FLEXIBILITY	
• Mechanisms used:	CDM, CERs without limits; also programmatic CDM for increased quality
• New and existing ships; and new entrants:	Applies to both existing and new ships; no problems with including new entrants as scheme is based solely on charges, rather than allowances
• Adjusting to new realities:	Charge annually ; funding policy reviewed and adjusted periodically by IMO
• Starting small, and learning by doing:	Can be limited to ship type or size threshold; easy scaling up thanks to the harmonized charge that does not vary with the number of participants

Cost of Delay is High: 3 year delay = 2GtCO₂ = 4 annual emissions = \$50bn!

Costs for conservative assumptions:

- Improvements of 0.8% pa starts 3 years later
- Potential to bring forward step changes is reduced by 1 year (from 10 to 9 years)



Keeping the Momentum up? YOU could help!

The idea of an emission fund has already received backing from a number of states in the IMO. Operationally IMERS can be implemented rapidly. An increased understanding of the proposal and its benefits **can make you a supporter**, and ultimately help your country! We hope to meet you.



Please come to our side event in Bali or contact us directly!