

## FUNNEL VISION

Do you know where bunker gets its name? From the original fuel for ships, dirty coal stored in a 'coal bunker'

When it shifted to 'liquid coal' based on petroleum oil, shipping cleaned up. From the carbon perspective, however, it didn't clean up enough. That may be an inconvenient truth but Funnel sees an opportunity for the shipping industry to lead the world.

Funnel wants you to know that the shipping carbon challenge is not the ships, it's the fuel. Petroleum based bunker fuel.

Founded by professionals in sustainability and shipping, Funnel's focus is to resolve shipping's carbon challenge, once and for all.

Funnel offers comprehensive carbon solutions for every container vessel currently en route to its next discharge port, for every bulk carrier currently loading, for every Panamax or Cape. For every voyage

Funnel delivers in three ways.

Firstly, through effective soil carbon sequestration

programs, Funnel provides inexpensive carbon offset for shipping CO2 emissions. Removing unsustainable carbon from the atmosphere is like putting a Capesized carbon escapee back in jail.

Secondly, by facilitating the trial of 'algae biofuels', Funnel will stop the carbon criminal escaping in the first place. Now that's a great story...

So, thirdly, Funnel will communicate this extraordinary story to those in the shipping industry who most need to know.

### THE FUNNEL VISION

Funnel's vision is for shipping to lead the world away from fossil fuels and a carbon constrained planet, and toward a sustainable future. Funnel will help the international shipping industry cost effectively cut its cumulative carbon footprint to zero by 2024.



## GREEN SHIP OF THE FUTURE

"Green Ship of the Future" is a unique Danish Joint Industry project aiming at developing and demonstrating technologies and methods for reduction of air emissions from ships. The project offers a framework for companies within which to cultivate and demonstrate technologies and operational means capable of obtaining 30% reduction in CO2 emissions and 90% reduction in SOx and NOx emissions for ships in the future. The areas of focus are machinery, propulsion, operation and logistics.

The project was initiated in 2008 and has now 15 partners working on 13 different projects - with the number of partners and projects still growing. The project is coordinated by Danish Centre for Maritime Technology, which is a joint R&D centre between FORCE Technology and Technical University of Denmark (Department of Mechanical Engineering).

Current projects include approaches using both existing and available technologies and entirely new

and innovative developments. For each project the goal is to be able to present a demonstration model for the Climate Conference in Copenhagen in December 2009 - either as real demonstration case or as a theoretical study. But most of the projects are to continue after 2009.

The Green Ship of the Future offers a unique framework and meeting place for shipowners, suppliers and organisations, and the ambitious targets for reductions of CO2, NOx and SOx will be targeted through a wide and open co-operation across industries, companies and technologies.

The results of the Green Ship of the Future will be presented at the Bright Green exhibition on 12-13th December, which is arranged in parallel with the Climate Conference in Copenhagen.

\*) The targets refer to Newbuildings of certain ship types, drawing on a base equivalent to the average emissions of the world fleet in 2007 and with a 10 year horizon



## MAERSK LINE

Reliable and comprehensive global transport coverage is ensured in Maersk Line through a fleet of more than 500 vessels and 1,900,000 containers. An extensive network of feeder vessels, trucks and dedicated trains support a unique concept of door-to-door service.

Maersk Line is represented in more than 125 countries, enabling a close local connection to our high-quality worldwide service. Advanced ecommerce solutions assure customers access to accurate, online information on their shipments.

As a responsible sea carrier, the values of Maersk Line are reflected in - "Constant care" - through which, respect for the environment is a natural and integral part of our business model.

Constant care is applied in the way we use resources and in how we optimise operations. For us this entails a commitment to promote environmental protection standards amongst our employees, in the industry and world in general and innovating to developing environmentally friendly solutions.

A leadership position in the industry allows us to offer

competitive business while investing in efforts that are beneficial to the environment, contributing to tackling climate change

As an integral part of the A.P. Moller Maersk Group, Maersk Line aims to be an attractive business partner, a favoured employer, and a good corporate citizen.

### PROJECT FACT BOX

Maersk Line designed a new series of sixteen 7450 TEU container vessels and applied its internal knowledge and expertise to available technology solutions to optimise emissions and fuel efficiency. These vessels will enter in service from 2010 to 2012.

Several technologies were brought together to ensure savings of at least 22% corresponding to a yearly saving of 180,000 tons fuel and 550,000 tons CO2 on the series as a whole.

We believe that by investing in fuel efficient technologies and optimizing ships to the services where they operate, we have successfully set a new standard in applying climate friendly solutions.

