

## Sustainable shipping



## Targeted work on sustainability

Like many other sectors, shipping is under increasing pressure to become more sustainable. As this goes beyond the need to reduce air emissions, IMARES, part of Wageningen UR (University & Research centre) is laying the foundation for an integrated approach to the problem. In doing so we are supporting the shipping industry in actively becoming more eco-friendly.

## **Projects**

Companies in the global shipping industry are using the modelling instruments developed by IMARES to calculate the *Environmental Impact Factor (EIF)*. Using this methodology, we help them find the best available technology to reduce the environmental impact of their activities. Companies gain an insight into which measures are most effective, allowing them to set clear priorities and optimise the environmental returns on their investments. We have the expertise to answer these and many other questions – from how to reduce air emissions or underwater noise to limiting the release of oil or other harmful substances and preventing hull fouling. IMARES also plays a prominent role in the development and certification of new ballast water treatment systems.

A good example of a venture that has yielded concrete applicable knowledge is the *E3 Tug Project*, a joint initiative by IMARES, Smit Engineering, Damen Shipyards and Alewijnse Marine Systems. The E3 Tug is a tugboat designed and produced to be as environmentally friendly as possible. This project, which won the prestigious Shipping Award from the Royal Association of Netherlands Shipowners (KVNR) in 2009, shows that it is possible to make sustainable choices which are also economically viable in all phases of shipbuilding design and production.

Active in all knowledge networks

IMARES participates in all the major national knowledge networks within the field of sustainable maritime operations. For instance, we are a member of the Maritime Knowledge Centre (together with leading companies and research institutes in the Netherlands) and work closely with the Platform Ships' Emissions in the organisation of the Clean Seas Maritime Technology Network. IMARES is also the founder of the Maritime Campus Netherlands, a partnership of businesses, educational institutions, research institutes and governments active in the field of sustainable maritime development.

'We help companies find the best available technology to reduce their impact on the environment.'

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