

The Blue Revolution is coming!

MARIN has dedicated nearly 80 years to supporting the industry in finding the right propulsion solutions and Natural Propulsion is making a come back.

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The constant interest in efficient and cost-effective solutions to transport goods at sea supports and motivates research and development in the maritime sector. However, innovations that create a real revolution in propulsion systems, transport operations or logistics are hard to set-up due to their possible risky consequences and the rather conservative environment. Margins are also perhaps too small to look to further improve the efficiency of traditional propulsion systems.

MARIN has always dedicated to supporting the industry in finding innovations and optimising proposed designs. Originally targeting the reduction of the required installed power or improving the calm water speed; the same knowledge and ever evolving techniques are nowadays applied to reducing emissions and fuel consumption. Rising environmental consciousness and the corresponding rise in stringent regulations, as well as ever-increasing energy prices are driving these new targets.

The traditional improvement of propellers and propulsive efficiency, as well as hull form optimisation remains a reliable way to improve ships. However, new fields are rising rapidly to push the boundaries further away. Several initiatives have been set up through research and Joint Industry Projects such as those dealing with the introduction of energy saving devices and their impact on existing vessels, the onboard monitoring of ships in service conditions to identify potential gains (by trimming the vessels for

example), the understanding of the parameters affecting the added resistance in waves and thus, the speed in service conditions or the further reduction in drag by means of air lubrication.

Natural Propulsion seminar In addition to those aspects, a radical change in the propulsion source can also be considered: natural propulsion. Use of environmental forces such as wind, waves, current or sun is not new of course as it has always been at the heart of maritime transport. But natural propulsion systems have been coming back regularly for about 40 years in the form of assistance or main drive but without the great success that was expected and hoped for. Today, the constant increase in energy prices and the increasing pressure on environmental protection, is giving a new life to many of these ideas and a certain boost to radically new developments, even in terms of concepts or transport logistics.

In order to sustain such initiatives and share potential technical and concept opportunities and to outline upcoming challenges, MARIN is organising a Natural Propulsion seminar on Friday, January 20 in Wageningen. Making a smarter use of the environment when sailing is a new course that is sustainable for the future. After the green revolution on land, let's support a blue revolution at sea!

For more details on the Natural Propulsion seminar, please contact naturalpropulsion@marin.nl or check www.marin.nl/naturalpropulsion.

