Seminars and Joint Industry Projects focussing
on renewable energy and nature-inspired solutions

MARIN launches BlueWeek

Any research and development, innovation or investment in a sustainable field will benefit our society and future generations. Researchers at MARIN, spurred on by their own motivation and also by demand from the industry, have started studies into sustainable solutions for the maritime industry. Guilhem Gaillarde & Sebastien Gueydon, BlueWeek@marin.nl

These projects focus on alternative propulsion mechanisms based on the natural movement of fishes, mammals or insects, natural propulsion through wind power or sun, or energy production taking advantage of the available sources of power such as wind, sun, waves or current. All of these initiatives highlight MARIN's determination to link hydrodynamic knowledge with these new technologies and challenges.

Following the success of earlier R&D Forums and Joint Industry Projects, MARIN is starting a new JIP week: the BlueWeek. During this week, all ongoing projects and initiatives focusing on renewable energy and nature-inspired solutions can meet. Alongside project meetings, seminars and workshops are planned and new initiatives will be presented in an open meeting. BlueWeek will be held in Wageningen from March 17-19, 2014.

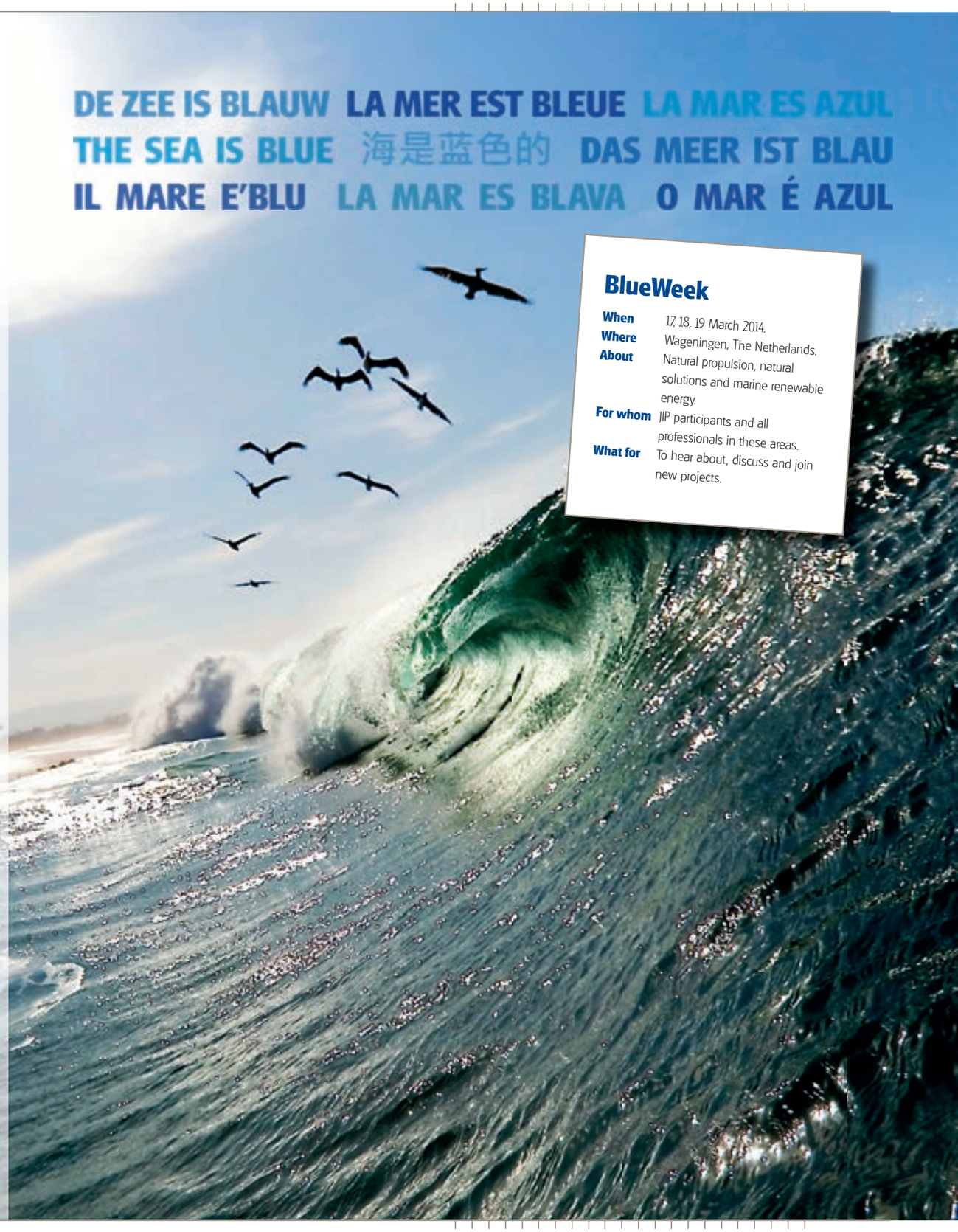
Natural Propulsion seminar - 3rd edition For thousands of years maritime transport has relied on nature's power. Today with the twin challenges of volatile oil prices and impending environmental legislation, serious consideration must be given to economically viable, natural propulsion solutions. Following the success of previous seminars, MARIN is organising a third seminar on Natural Propulsion. The seminar is being organised to present current activities, projects and realisation, to sustain new initiatives, share potential opportunities and to outline upcoming challenges. More than 100 academics, scientists, naval architects, shippers, entrepreneurs and innovators gathered during the previous seminar and shared news about the latest developments and opportunities. We expect the same level of interest in this fascinating field next year.

Biomimetic Hydrodynamics seminar Mother Nature is an inexhaustible source of inspiration. However, technological solutions developed for the maritime sector are often driven by the constraints of such a hostile environment and do not much resemble solutions yielded by the evolution of marine species. Nevertheless, many researchers keep on trying to understand the efficiency and creativity behind natural solutions. In order to explore innovative concepts, fresh ideas and current achievements, MARIN proposes its first ever seminar on biomimetic hydrodynamics.

Marine Renewable Energy JIP meetings The development of Marine Renewable Energy (MRE) is a promising way of diversifying energy production and limiting CO2 production. Nowadays, offshore wind farms – with fixed turbine foundations – are the only technical solution of MRE devices that are being developed on an industrial scale. In the coming years it is expected that floating wind turbines, current turbines and wave energy convertors will also grow to become competitive solutions for producing energy. MARIN supports this goal through the Renewable ENergy Team (RENT). RENT's mission is to offer the best hydrodynamics advise for any development of MRE devices through cutting edge technology, model testing and simulations. Therefore, MARIN has developed very innovative methods to test all sorts of MRE devices. Such model tests currently include power take off mechanisms and all the necessary adjustments to mimic the full-scale behaviour of the MRE device at model scale. Numerical simulations help to fill the gap between model tests and real life onditions. For instance, MARIN's Reynolds Averaged Navier Stokes solver ReFRESCO has proved to be very useful to investigate viscous scale effects on the blade of a wind turbine. This kind of practical experience will be shared in a workshop co-organised by MARIN and the International Network on Offshore Renewable Energy (INORE).

Open Forum New initiatives aiming for fundamental changes in ship propulsion and the production of energy by using natural ocean resources will be presented in the Open Forum on Wednesday morning. You are welcome to submit your proposal through www.marin.nl/BlueWeek.

The programme, including details of the Natural Propulsion seminar, the Biomimetic Hydrodynamic seminar and all the JIP meetings, will follow in the next issue of Report and through www.marin.nl/Blueweek.



BlueWeek

When	17, 18, 19 March 2014.
Where	Wageningen, The Netherlands.
About	Natural propulsion, natural solutions and marine renewable energy.
For whom	JIP participants and all professionals in these areas.
What for	To hear about, discuss and join new projects.