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SEAFRONT kicks off in Newcastle



The EU FP7 project 'synergistic fouling control technologies', acronym SEAFRONT, will aim to significantly advance the control of biofouling and reduce hydrodynamic drag by integrating multiple technology concepts such as surface structure, surface chemistry and bio-active/bio-based fouling control methodologies into one environmentally benign and drag-reducing solution for mobile and stationary maritime applications. SEAFRONT has been granted under the EU FP7 program 'Ocean of Tomorrow'.

Marine biofouling, the unwanted colonization of marine organisms on surfaces immersed in seawater has a huge economic and environmental impact to the shipping industry. This unwanted 'slime' contributes to increased maintenance requirements for marine structures, higher vessel fuel consumption, operating costs, greenhouse gas emissions and the spread of non-indigenous species. It is widely accepted that a fouled hull can be estimated as correlating to an increase in fuel consumption of 40%, but examples are known that the penalty can be as high as 85%. The economic consequences are clear as an average cargo ships consumes around 300 tonnes or \$150,000 worth of fuel per day.

SEAFRONT started on January 1st 2014 with a total budget of 11.2 million Euro including 8 million Euro subsidy of the European Commission for a period of four years. The SEAFRONT consortium consists 19 partners across Europe: 4 multinationals, 8 SMEs, 2 research institutes and 5 universities. The FP7 project involves many different scientific disciplines needed for the development of novel fouling control coatings: marine science, biotechnology, biology/genomics, chemistry/nanotechnology, ecotoxicology, hydrodynamics, vessel efficacy, and formulation and scale-up technologies. Novel fouling control coatings will be applied and benchmarked against commercial coatings on four different marine and maritime applications each with their specific antifouling requirements: aquaculture, shipping, tidal energy and offshore platforms.

On January 16 and 17, 2014, FP7 SEAFRONT organized its kick-off meeting at the Newcastle United Football Stadium St. James Park kindly hosted by partner AkzoNobel, global market leader on fouling control paints with the product brand International®. Over forty participants, representing all partners of SEAFRONT, attended the kick-off meeting discussing the short term work plan, state-of-the-art fouling control coatings and getting acquainted with each other. After two intensive days of kick-off, the Executive Board of SEAFRONT expressed its happiness with the progress made and the collaborative atmosphere between the partners created. The meeting location had a significant positive contribution to the excellent start of the SEAFRONT project demonstrating the importance of the project to host AkzoNobel.

Meanwhile SEAFRONT released its public website www.seafront-project.eu where you can find more detailed information about the project partners, public abstract, upcoming events on biofouling and fouling control technologies, press releases containing more background information, newsletters and references to scientific publications released by SEAFRONT partners. When you want to receive the six monthly electronic newsletter of SEAFRONT, please fill out the Contact Form with subject 'mailing list SEAFRONT newsletter'. You will receive future newsletters of SEAFRONT in your mailbox until you unsubscribe.

Intersleek®1100SR receives industry-wide recognition



AkzoNobel's Marine Coatings business, International®, is celebrating the success of its Intersleek®1100SR technology following a series of nominations and award wins from RINA, Seatrade and Riviera Maritime.

Intersleek®1100SR, the shipping industry's first biocide-free foul release fluoropolymer technology that addresses the significant issue of slime fouling on ship hulls, was recently awarded the 2013 RINA – QinetiQ Maritime Innovation Award at the Institution's Annual Dinner. This was the first occasion this Award has been presented and Intersleek®1100SR was chosen from 17 entries worldwide.

[Link](#) to the full press release.

Visit of Mr. Barroso to Biotrend (Cantanhede, 24 April 2014)



The President of the European Commission, Mr. José Manuel Durão Barroso, visited the facilities of SEAFRONT partner Biotrend, after presiding over the ceremony of the inauguration of a new building of Biocant park, the first Portuguese technological park and incubator fully devoted to biotechnology.

Carbon credits for hull efficiency

AkzoNobel's International marine coatings business and The Gold Standard Foundation recently unveiled a new marine-based methodology to reward improved vessels' fuel efficiency.

Certification by the Swiss-based non-profit organization The Gold Standard is claimed to be the first methodology to allow ships to generate carbon credits, thus income, for the CO2 emission reductions they achieve. The methodology is based on shipowners and operators converting existing vessels from a biocidal antifouling system to a biocide-free advanced hull coating, such as International's patented Intersleek.

A baseline emission level is determined for the vessel prior to the application of Intersleek with the same data source then used to determine the emission savings after its application. The carbon credits generated are directly related to reduced emissions as a result of reduced fuel consumption.

Using a 'results based finance' approach, carbon credits are awarded annually, based on vessel data that is collected, analysed and for Intersleek, administered by International and submitted to The Gold Standard Foundation for validation. To ensure validity and transparency, the fuel savings that are generated are verified by independent UN accredited auditors. Once the carbon credits are issued to International, they can be sold at market price and the revenue shared with customers in a new form of finance.

[Read](#) the full article in the magazine TANKEROperator May 2014, page 46.

I-Tech Selektepe recommended for EU approval by the UK Health and Safety Executive (HSE)

I-Tech, the originator of Selektepe®, a marine biocide used to improve ship hull performance and reduce maintenance, has been notified that Selektepe has passed the EU evaluation criteria for marine biocides and therefore can be recommended for approval in the EU.

Final EU approval estimated by end of 2014

The recommendation from the UK HSE means that all necessary investigations and tests are completed, approved and evaluated to ensure that Selektepe does not pose a risk to humans or the environment when used as an antifouling biocide. All other EU member states have now received access to the Selektepe dossier and will be given the opportunity to raise questions or concerns during a 2-month period. Final EU approval is estimated to arrive by the end of 2014. Selektepe has already received regulatory approval in Japan, Korea and is under registration in China.

First and most critical step

"The confirmation that Selektepe complies with the demanding EU Biocidal Products Regulation for its use is very encouraging to us as the EU requirements are utmost stringent and serve as references for regulators and industry in most parts of the world. We are confident that our enthusiasm is shared also by our customers and partners in the shipping industry as this is proof that Selektepe is a safe and well-evaluated product", says Philip Chaabane, Managing Director of I-Tech.

[Click here](#) to read the full article.

European Coatings Conferences on Marine Coatings

SEAFRONT attended the two day Marine Coatings conference on March 4-5, 2014, at Duesseldorf, Germany. 55 Participants from various marine paint manufacturers, raw materials suppliers, biocide developers, end-users, universities and research institutes across Europe discussed the current state-of-the-art in marine coatings and brainstormed about necessary future developments to improve environmental friendliness of coatings and significantly reduce greenhouse gas emissions resulting from fuel consumption of vessels.

The conference started with a short course on basics of marine coatings given by Seamus Jackson of Jotun, Norway. The focus of the short course was on alternative biocides for banned organotin based coatings and on Self-Polishing Coatings (SPC) in order to achieve a continuous controlled release of biocides. Recently developed foul release coatings were not addressed during the short course.

The conference program contained contributions of ship owners, offshore platform operators, novel biocide developers, marine paint manufacturers and academic research on marine and protective (e.g. anti-corrosion) coatings. Hempel presented its studies to the operational mechanism of its Hempaguard® and Actiguard® products, which are a combination of foul release and biocidal (low amounts) containing paints. All presenters emphasized that the development of a novel environmentally benign fouling control coatings with reduced drag is a research-intensive, time and money consuming trajectory only affordable when many partners collaborate in the value chain.

[Click here](#) for more information about the Marine Coatings conference.

Vincentz Network will organise a [conference](#) on novel biocides technologies on September 29-30, 2014.

Marine Coatings Market 2018 - Oil and Gas industry Leads the Growth

The increase in consumer preference for eco-friendly products is an important trend being witnessed in the Global Marine Coatings market. The increase in environmental regulations and restrictions along with the changing consumer preference for sustainable products is urging the marine coatings manufacturers to develop eco-friendly products. The makers of marine coatings, which include anti-corrosive, anti-fouling, and foul release products, are developing new and eco-friendly coatings to comply with the regulations and to meet the increasing demand for sustainable products that do not harm the marine ecosystem. This in turn is expected to propel the growth of the market during the forecast period.

Analysts forecast the Global Marine Coatings market to grow at a CAGR of 11.29 percent over the period 2013-2018. According to the report, one of the major drivers in this market is the rapid growth in the Oil and Gas industry. This in turn will boost the demand for protective and marine coatings.

[Read more](#) or purchase the report.

Dutch Polymer Institute
International Paint Ltd
Fraunhofer IFAM
I-Tech AB
University of Newcastle upon Tyne

Minesto AB

Solvay Specialty Polymers
Delft University of Technology
Eindhoven University of Technology

University of Bristol
Val FoU
Biotrend
BioLog

University of Gothenburg
Bio-On
Bluwater Energy Services

Smartcom Software
Solintel
Hapag Lloyd

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