



During the 3rd edition of the International Antifouling Conference, an expert panel discussion was held on the topic:

"The Fouling Challenge and How to Combat It."

The following industry representatives provided their perspectives and expertise during the panel:

- Dr Markus Hoffmann, Director R&D - I-Tech AB
- Ralitsa Mihaylova, Head of Special projects – Safinah Group
- Dr. Maria Salta, Expert Biofilm Research - Endures
- Martin Karlsson, Project Manager - Stena Teknik
- Dr. Neil Oxtoby – Section Leader - International Paint/Akzonobel

Panel overview

The primary focus for this panel was technology and the fouling challenge, with perspectives from multiple stakeholder groups along the supply chain. For this reason, the panel hosted representatives from research institutions, biocide suppliers, consulting companies, paint manufacturers, and end-users (ship owners/operators).

Current fouling challenge

The hidden costs of biofouling beyond the noticeable fuel consumption increases include operational costs for periodic hull grooming.

Specific examples where biofouling had operational consequences included penalties incurred if a ship was refused entry into ports in certain regions – i.e., New Zealand – such as docking delays and sailing to another port for cleaning services, for example.

Biofouling can increase hydrodynamic resistance by up to 40%, significantly reducing vessel efficiency.

To maintain speed, ships must increase engine power, leading to fuel consumption spikes or loss of power.

Long-term fouling buildup affects fuel efficiency and pushes carbon emissions beyond regulatory limits, making compliance increasingly difficult.

Solutions and innovations

The experts discussed how traditional biocidal coatings are facing increasing restrictions. This is currently impacting the market to some extent, but the market will be further affected as new global regulations regarding GHG emissions and biofouling management come into force.



The impact of K-REACH was discussed, and how paints must be developed to contain less biocidal concentration compared to previous ($>1\%$ per biocide). This is tricky, BUT it is catalyzing significant development steps ahead in marine coatings.

It was discussed that the marine coatings industry should be prepared to adapt to regulations with strict enforcement, such as K-REACH, coming into force in more regions in the future.

The panel also discussed emerging technologies and was asked which shows the most promise for sustainable antifouling? The shipowner's representative confirmed that hull cleaning technology was his selection, as it is a mechanical method.

The panel discussed the viability of non-biocidal solutions, such as ultrasonic systems, where the systems deploy ultrasound waves to prevent fouling before it starts.

The paint company representative expressed his view that UV-C will not be ready within a 5-year timeframe, but perhaps in 10-15 years.