



## Hull performance data gives Euronav accurate ROI information

Many vessel hull coatings claim to improve hull smoothness and so reduce vessel fuel consumption and associated emissions. But many factors affect fuel consumption, which makes it hard to determine the exact performance and return on investment of a hull coating.

Euronav, one of the global leaders in the shipping of crude oil, has been using our silicone hull coatings to improve fuel efficiency since 2007 with good results. So, when the company wanted to accurately determine return on investment, it approached us for a solution.

We invited Euronav to take advantage of our performance monitoring service. Provided in collaboration with DNV GL, an independent advisor to the maritime industry, the service gives customers accurate performance data for a vessel's hull and propeller – enabling them to ascertain exactly how fuel savings are being achieved and make adjustments if performance drops.

We began monitoring three Euronav vessels in 2015, six months before they switched to Hempaguard X7, our industry-leading fouling defence hull coating. Six months after application, the data clearly showed an increase in propulsion efficiency, of which a significant portion was directly attributable to Hempaguard.

“Hempel's fuel monitoring system is enabling us to accurately determine the performance of our propulsion systems, including the propeller and hull coating. This gives us complete insight into our return on investment. But more importantly, it also enables us to work closely with Hempel and so improve long-term efficiency.”

- Theodore Mavraidis, Fleet Technical Manager,  
Euronav Ship Management (Hellas) Ltd.

## Monitoring Euronav's hull coating ROI

### The challenge

When fouling organisms, such as barnacles and biological slime, attach to a vessel's hull, the extra drag they create means additional fuel is needed to move the ship – which increases both fuel consumption and associated CO<sub>2</sub> emissions.

As fuel is the no. 1 expenditure for most ships, reducing fouling and hull roughness can have a significant impact on a vessel's bottom line performance.

Many hull coatings claim to improve hull smoothness and so reduce fuel consumption and associated emissions. However, few coatings continue to perform if the vessel is idle for extended periods or changes trading patterns.

For vessel owners, the question is: how can you accurately gather performance data from a vessel's hull and propeller system to both ensure that the coating is performing and make adjustments if performance drops? Euronav, one of the global leaders in the shipping of crude oil, wanted a solution to this problem.

### The solution

Euronav has been using our silicone hull coatings to improve fuel efficiency since 2007 with good results.

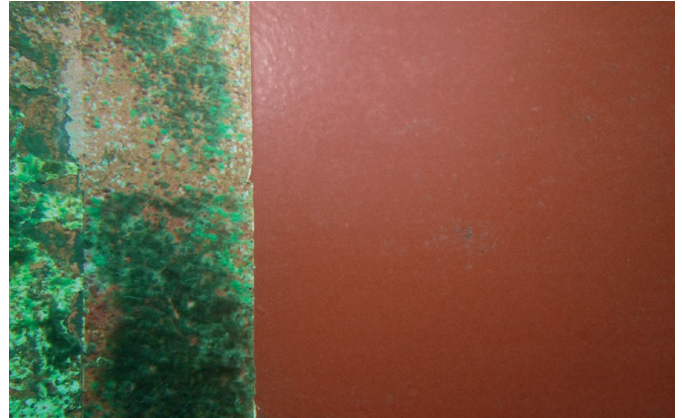
In 2015, following excellent performance on its VLCC Famenne, Euronav decided to switch a number of vessels to Hempaguard X7, our most advanced hull coating to date.

Combining two proven technologies in one coat, Hempaguard delivers six per cent fuel savings compared with best-in-class antifouling over the entire docking interval – even if the vessel is idle for extended periods or changes trading patterns – and it comes with a marketleading idle day guarantee.

The Euronav vessels using Hempaguard have seen a significant increase in fuel efficiency. However, many factors affect a vessel's fuel performance, so we invited Euronav to take advantage of our performance monitoring service to ascertain exactly how its fuel savings are being achieved.

The service is provided in collaboration with DNV GL, an independent advisor to the maritime industry. Working with DNV GL, our Hull Performance Team began monitoring the hull and propeller performance of three Euronav vessels – the VLCCs Hakone, Hirado and Sara – six months before Hempaguard X7 was applied.

Six months after application, the data clearly showed a total increase in propulsion efficiency, of which a significant portion



The Hempaguard test patch on the Famenne during a night inspection in Singapore. After 45 months in service, the Hempaguard test patch is still smooth and fouling free. In comparison, the standard SPC antifouling coating suffers from heavy fouling, mainly due to relatively long idle periods during the test.



Euronav's VLCC Sara in drydock at Singapore, in December 2015. Our Technical Service team works closely with Euronav throughout all coatings applications to ensure the process is fast and application quality is high.



Euronav's VLCC Hakone at NKOM, Qatar.

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was directly attributable to the Hempaguard hull coating. As a result, Euronav decided to switch three more vessels – the VLCC Sandra, the Suezmax Maria and M/T Captain

At a glance	
Company:	Euronav
Vessel name:	Hakone (IMO: 9398084) Hirado (IMO: 9377420) Sara (IMO: 9537745) Sandra (IMO: 9537757) Maria (IMO: 9530890) Captain Michael (IMO: 9531480)
Date of application:	Hakone, October 2015 Hirado, December 2015 Sara, December 2015
Location:	Hakone, Qatar Hirado, Dubai Sara, Singapore Sandra, Qatar Maria, Singapore Captain Michael, Dubai
Vessel areas:	Flat bottom and vertical sides



Euronav's VLCC Hirado in Dubai in December 2015