A brief overview of potential harmful effects to marine ecosystems of ship-associated technology

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Managing Hull Fouling by a shipowner

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The CMA CGM Group is a leading worldwide shipping group. The company operates on all seas, with a young and diversified fleet of 536 vessels.

CMA CGM's guiding principle, places the protection of the environment at the heart of its policy as a sustainable and an accountable core point. Since 2009, we have implemented numerous technical energy efficiency improvements on CMA CGM owned vessels fleet. Our group has achieved a 50% CO2 reduction over the last 10 years and has set a new ambitious target of -30% by 2025, presented at COP 21 Paris. This is why, despite the last year fuel price decrease, CMA CGM group pursues its investment program in innovation. On top of that, while looking forward on a pure economical aspect, the introduction of the World Wide ECA, confirmed for 2020, introduce a milestone for a future of expensive energy. Hence, the future price of bunker is very uncertain but most experts would claim that "new" low sulfur fuel oil would be closer to the price of MGO than HFO.

Out of these initiatives mentioned above, the carbon footprint can be improved by maintaining the initial frictional resistance of the ship. That means keeping the hull and the propeller blades surface smooth and free from any fouling. To operate the hull in optimal condition, CMA Ships (the ship management branch of CMA CGM group) has adopted the following solutions:

1. A strategic selection of the Underwater Coating at Newbuilding stage or during Dry Docking operation. CMA Ships tries to select the best Antifouling considering variations in operations of the ships. Therefore, we need to have a perfect understanding of the performance of existing antifouling.
2. An Intermediate solution between two Dry Docks. Today to ensure optimal performance, it is inevitable to implement an Underwater Maintenance program including propeller polishing, hull inspection and Hull cleaning.

It is not an easy way to undergo hull cleaning in an optimal condition. We are facing to numerous constraints that needs to be addressed (such as: numerous ports don't authorize in water hull cleaning, a lack of information concerning the impact of hull cleaning technologies on underwater coatings, non-application on silicone paint inside Chinese shipyard).