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Alfa Laval to be a technology partner for the world's first project to demonstrate end-to-end shipboard carbon capture at scale

Alfa Laval will be a technology partner in the joint project initiated by the Global Centre for Maritime Decarbonisation (GCMD), Oil and Gas Climate Initiative (OGCI) and Stena Bulk to investigate the on-board capture, storage and off-loading of carbon dioxide (CO₂). Alfa Laval will bring to the project technological and engineering expertise to help understand the challenges and opportunities of deploying carbon capture technology on ships. This project will be another big step towards Alfa Laval's decarbonization roadmap.

Alfa Laval is proud to partner up with the Global Centre for Maritime Decarbonisation (GCMD), the Oil and Gas Climate Initiative (OGCI), Stena Bulk and other leading players from the energy and shipping industries, to initiate a two-year project to demonstrate shipboard carbon capture at scale. Project ReMarCCAbLE (Realising Maritime Carbon Capture to demonstrate the Ability to Lower Emissions) is the world's first project aimed at demonstrating end-to-end shipboard carbon capture at scale. The seven-member consortium will test a carbon capture unit onboard a Stena Bulk MR tanker to assess the operational challenges on a ship at sea and identify potential cost reduction measures for future commercial applications. The success of project ReMarCCAbLE has the potential to accelerate commercial deployment of shipboard carbon capture technology by 2026.

Professor Lynn Loo, CEO of GCMD, says, "GCMD is proud to convene a strong group of stakeholders to pilot one of the mid-term solutions needed to help the maritime sector to decarbonize. Project ReMarCCAbLE is in line with GCMD's goals of lowering the barriers for adoption so international shipping can meet or exceed the International Maritime Organization's (IMO) GHG emissions reduction targets for 2030 and 2050. We look forward to tapping on Alfa Laval's expertise in this domain to enable the pilot."

A step further towards decarbonization

Alfa Laval has been part of carbon capture testing projects and studies in the past, and the project ReMarCCAbLE will help in expanding its knowledge further in this field. By being part of this prestigious project, Alfa Laval aims at exploring the potential of the technology to meet decarbonization goals, assess the validity of the technical assumptions made during the feasibility study done by the consortium, and analyse the integration and operation challenges of fitting and running the technology while sailing.

Sameer Kalra, President of the Marine Division at Alfa Laval says, "Since the production of zero-carbon fuels to scale will take some time, we see carbon capture coupled with low carbon fuels as one of the potential pathways to help the shipping industry navigate to a net zero future. This partnership is therefore an excellent opportunity towards developing such a solution. We want to evaluate the commercial and environmental implications as well as identify the challenges and opportunities in the implementation of a carbon capture system on board a vessel. The findings will help in the development of the technology at scale."

An ideal technology partner

Project ReMarCCAbLE is one of many Alfa Laval projects with sustainability in focus. By leveraging its technical know-how in thermal management and emission-reducing technology, Alfa Laval will play a vital role in facilitating this project for carbon capture on board. The project is divided into three phases. Right from the first phase of the project, Alfa Laval will be a key contributor in designing, engineering, testing and installing the solution on board the MR tanker. Not only will Alfa Laval support the project with its technological experience in this field, but it will also make Alfa Laval Test and Training Centre available for testing the carbon capture installation and to provide training to the crew before it is installed on a ship.

“For us, it is about being right at the forefront in the evolution of new sustainable technologies and supporting their development into an environmental and economically viable solution that can benefit our customers,” says Sameer. “Decarbonizing the marine industry demands a wide range of emission-reducing technologies in addition to shifting towards green fuels. We want to facilitate the development of such technologies and help reduce vessels’ carbon footprint.”

To learn more about Alfa Laval’s journey towards sustainable shipping, visit www.alfalaval.com/marine

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Editor’s notes

This is Alfa Laval

Alfa Laval is a world leader in heat transfer, centrifugal separation and fluid handling, and is active in the areas of Energy, Marine, and Food & Water, offering its expertise, products, and service to a wide range of industries in some 100 countries. The company is committed to

optimizing processes, creating responsible growth, and driving progress to support customers in achieving their business goals and sustainability targets.

Alfa Laval's innovative technologies are dedicated to purifying, refining, and reusing materials, promoting more responsible use of natural resources. They contribute to improved energy efficiency and heat recovery, better water treatment, and reduced emissions. Thereby, Alfa Laval is not only accelerating success for its customers, but also for people and the planet. Making the world better, every day.

Alfa Laval has 17,900 employees. Annual sales in 2021 were SEK 40.9 billion (approx. EUR 4 billion). The company is listed on Nasdaq Stockholm.

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