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The development of the next-generation Baltic assistance icebreaker has progressed to the next phase. The Aker ARC 130 S design has been finalized in close co-operation with the Swedish Maritime Administration and optimized for Sweden's icebreaking needs. The decision to construct two new icebreakers for Sweden was made in December 2022. The first vessel is scheduled for delivery in 2026 and the second about a year later. The state-of-the-art icebreaker with unrivalled energy efficiency will be the first methanol-ready icebreaker in the world. Read more on page 4.

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May	31.5. –1.6. Åland Maritime Day, Mariehamn, Finland
June	11.6. – 16.6. International Conference on Ocean, Offshore & Arctic Engineering (OMAE), Melbourne, Australia 12.6. – 16.6. Port and Ocean Engineering under Arctic Conditions (POAC), Glasgow, UK
December	5.12. – 8.12. Marintec China, Shanghai, China

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Arctic Passion News 1 / 2023

Dear Reader,

Icebreakers and icebreaking ships have always been a distinctive segment in the marine industry and ship-building. Naturally, there are also many other types of special ships with different purposes and roles.

An icebreaker's design, however, is driven by environmental conditions, not only the tasks of the ship. Therefore, there are many types of icebreakers for diverse applications.

Icebreaking itself is not the singular reason

to build an icebreaker; a clear definition of its mission is also necessary. In its purest form, an icebreaker is an escorting vessel with the sole task of assisting other ships by literally breaking ice. Still, even for these icebreakers, other important and useful tasks are often added. Our portfolio of vessel types, combined with the excellent icebreaking capabilities that we have learned to design, has grown to become quite large.

Today, it is obvious that the needs for Arctic ships have changed. Traditional purposes related to industrial development in the Arctic region are fewer – especially seen from a western world perspective. Even operations within the Arctic Council and scientific co-operation are on hold due to continued international sanctions against Russia. This also changes the needs for icebreaking technology.

The green energy transition

is driving further changes. I am referring to a recent study and estimate by one of the energy majors, BP, expecting that fossil fuel-based energy production will be halved by 2050. The remaining part must be replaced by renewable energy. In today's situation, this is influenced by some main drivers: the global trend in sustainability, public opinion, the challenge of having affordable energy and national or regional safety of production.

The trust that energy can be bought and transported by anybody is questioned in today's political climate. Furthermore, transportation of renewables is more challenging and costly compared to fossil fuels. This means that new energy sources will most likely be more localised and produced by trustworthy parties.

In past decades,

one of the drivers for new icebreaking technology was the need to develop large tankers transporting oil & gas products, while supporting icebreaking and ice-classed ships were indispensable in production or loading operations. Now, the focus has returned to more traditional tasks and needs.

This can also be seen in this issue's articles. The modern escort icebreaker designed for Sweden has new fuel options aiming towards a carbon free future. Polar research and scientific needs are drivers for the polar research ship for Argentina. Canada, being a major Arctic icebreaker operator, needs a renewed fleet of multitasked ships. Technically demanding propulsion lines, even for navy ships, and renewable energy production by offshore wind is expanding rapidly also to icy regions.

All these new demands will require even more developed technology and optimised design solutions which we here at Aker Arctic are well prepared to meet, together with our clients.

Sincerely yours,

Reko-Antti Suojanen
Managing Director