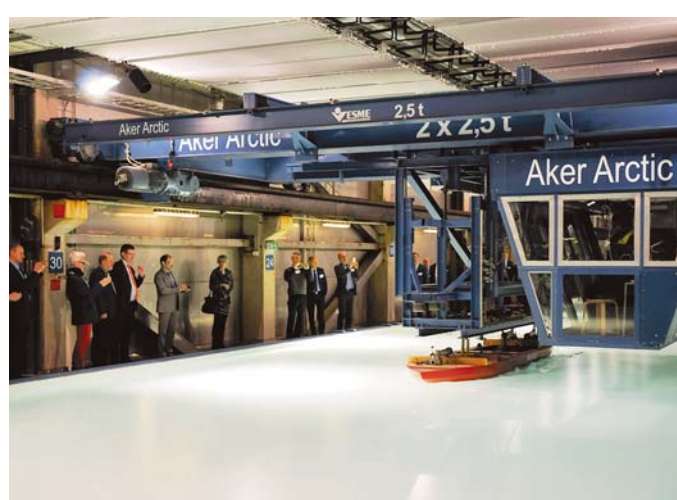


Arctic Passion Seminar gathered experts from all over the world

This year, the 13th Arctic Passion Seminar focused on discussing new Arctic projects and the development of new polar vessels and technologies, including a model test demonstration of the world's first LNG-fuelled icebreaker, *Polaris*.



The opening speech was given by Mr. Petri Peltonen, Under-Secretary of State from the Ministry of Economic Affairs and Employment, Finland, who summarized the core policies in the country's upcoming EU presidency with four letters: A for the Arctic, B for bioeconomy, C for cleantech, and D for digitalization.

Aker Arctic's Managing Director Reko-Antti Suojanen gave an overview of the Arctic market, recent achievements and new tools for design and testing at Aker Arctic. Examples of recent achievements are the beginning of the first Arctic LNG project for Yamal LNG, the construction of the ice class PC 3 Chinese icebreaking research vessel, and the design of a LNG-fuelled, ice class PC2 polar icebreaking cruise vessel for PONANT.

Dan McGreer, from Vard Marine Inc., presented the Chilean Antarctic Vessel's design project, in which Aker Arctic supported Vard with the design of the hull form, model tests and some specific ice class design solutions.

Mikhail Grigoryev, from GECON, continued with forecasts on how freight traffic on the Northern Sea Route will grow according to two different scenarios. He also gave his view on how many new arctic cargo vessels need to be constructed in the future.

The French Polar Logistics Vessel, *L'Astrolabe*, successfully finished her first year delivering supplies to Antarctica and

patrolling in the Indian Ocean. Jean-Luc Prime, from Piriou Shipyard, described the first winter's positive experiences and showed impressive pictures from loading and unloading cargo by the quayside, on ice floes and with helicopter.

Finnish and Swedish exports depend on efficient winter navigation on the Baltic Sea. With the introduction of EEDI (Energy Efficiency Design Index), which aims to lower CO₂ emissions a need arises to ensure that ships will continue to sail with feasible schedules. Arto Uuskallio, from Aker Arctic, gave an overview of the potential risks and what Aker Arctic is doing to prevent them from becoming reality.

In addition to seminar presentations, one of the highlights was the demonstration of an ice model test. This year, the icebreaking capability of the Finnish icebreaker *Polaris*, the world's first LNG-powered icebreaker, was demonstrated. The vessel is based on the Aker ARC 130 concept design and full-scale ice trials were carried out in 2017.

After lunch, Torkild Skjong, from Vard Group AS, presented Vard's different vessel construction projects along with the new luxury icebreaking expedition cruise vessel for Ponant, which Aker Arctic has designed in close cooperation with Stirling Design International.

Mikhail Belkin, from FSUE Atomflot, then talked about their icebreaking

support for Arctic projects, their current fleet and the new generation icebreakers which will be the basis for year-round navigation along the Northern Sea Route.

Novatek is planning to further expand its LNG production on the Gydan peninsula. Maxim Minin, from PAO NOVATEK, gave insight into the project.

Search and rescue operations in the Arctic have been under development. Commander Tomi Kivenjuuri, from the Ministry of the Interior, Finland, explained what the Arctic Coast Guard Forum (ACGF) does as a cooperation of the eight Arctic member states.

Tuomas Korpela, from ICEYE, continued with presenting a new service for on-line ice data, based on SAR satellite images.

Alexey Fadeev, from Gazpromneft-Sakhalin LLC, described their offshore projects on the Russian shelf. Lastly Ilkka Rantanen, from STARKICE Ltd., presented experiences of intelligent deciding on an 1A Super ice class bulk carrier in the Baltic.

We would like to thank all guest speakers and participants of this year's successful and interesting Arctic Passion Seminar! The seminar presentations have been uploaded to our website www.akerarctic.fi.