



Towards a 15+ years Multidisciplinary Polar Research Strategy: the ERICON - Aurora Borealis Science Plan

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The European Research Icebreaker Consortium - AURORA BOREALIS (ERICON-AB) was established in 2008 to plan the scientific, governance, financial, and legal frameworks needed for the construction and operation of the first multi-nationally owned and operated research icebreaker and polar scientific drilling platform. The AURORA BOREALIS is planned as a heavy icebreaker with the highest ice class, powered to break continuously in more than 2.5 m of multi-year ice and is able to manage ridges of more than 15 m. The ship shall perform year-round research tasks including scientific drilling in the Arctic and Antarctic without any support vessels. As a unique feature, the vessel is designed to autonomously perform dynamic positioning in pack ice of more than 2 m thickness while deploying the entire suite of drilling equipment and analytical tools known from the currently operating riser-less platforms. While the vessel shall principally be equipped with a drilling rig, the main task is to perform multi-disciplinary polar and marine research as a European large-scale research infrastructure, including long-term sustained service as a mobile polar observatory and conducting extensive bathymetric, geophysical, biological and other survey works.

The ERICON-AB project is currently generating a Science Plan document for the first fifteen operational years of the vessel. The Science Plan will provide the long-term scientific rationale and the roadmap for international strategic use of the vessel. This Science Plan is based on the scientific excellence as well as on the integration of the European Countries' polar capacities and perspectives. The science planning process is facilitated through meetings at national and international level, through liaison with International polar projects, networks and organizations, including relevant ESFRI infrastructures, and through international ERICON-AB conferences and initiatives.

The ERICON-AB Science Advisory Panel (ESAP) is a scientific consultative body established within the project. It shall provide the Consortium with efficient expert advice for the ERICON–AURORA BOREALIS Science Plan drafting as well as other relevant scientific and professional community activities. ERICON-AB will produce as well the strategic, legal, financial and organizational frameworks required from National Governments and the European Commission to commit financial resources to the construction and running of the European Polar Research Icebreaker AURORA BOREALIS.

These actions aim at including the AURORA BOREALIS as realistic option into national and European polar scientific strategies.