



# Swedish Polar Research Secretariat

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New Swedish Polar Research Icebreaker

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**POLARFORSKNINGS  
SEKRETARIATET**

SWEDISH POLAR RESEARCH SECRETARIAT

# The Swedish Government is investigating the requirements

## Sveriges roll i Arktis och nyanskaffning av forskningsisbrytare som efterträder Oden

Information från pågående  
utredningen om nytt  
polarforskningsfartyg (U2024:00015)



# Technical Requirement List

» **The vessel to be built and equipped for following primary roles:**

- » • Research operations in polar areas
- » • Icebreaking in polar waters including multi-year ice, PC2+
- » • Escorting and assisting vessels under polar conditions
- » • Ice management operations
- » • Re-supply for both onshore and offshore operations in Polar areas

» As an example, the vessel should be capable to escort and assist other vessels during a fibre-optic cable-laying operation as well as during maintenance and repair year around of such fibre-optic cable. please se more about Polar Connect; <https://nordu.net/polar-connect/>



# Fuel

- » The vessel is optimized for low environmental impact operation.
- » Power plant to be a redundant, IMO DP-2, dual-fuel methanol/diesel gen-set machinery.
- » A battery energy storage system to be installed for emission free operation, spinning reserve and peak-shaving.
- » Polar environment to be specially considered.





# Dimensions

- » Length over all about 140.0 meters
- » Length in waterline about 137.0 meters
- » Breadth at dwl, midships about 28.0 meters
- » Breadth maximum about 32.0 meters
- » Draught, at design waterline about 10.5 meters
- » Draught, scantling about 11.0 meters
- » Depth to main deck about 15.0 meters



# Logistical Supply & Modular Design

**Cargo Space** There is an open cargo deck aft with a total area of abt. 2000 m<sup>2</sup> with a capacity of minimum 150 TEU. Fittings for both 20ft and 40ft containers to be provided.

Utilities for containerized laboratories to be provided in at least 20 positions on aft deck supplying gas, electricity, hydraulic power, IT, water, sewage etc.

# Specific requirements

## » Moon Pool

One moon pool size 7.2 x 7.2 m shall be arranged in the midship area. Moon pool to be provided with a remote controlled watertight hatch at the bottom of the vessel and a weathertight hatch at main deck level with corresponding strength. Moon pool to be provided with an indoor working area. This working area to have a side shell door (4 x 4 m) enabling CTD deployment. Foundations to be prepared for installment of traverse. Wet laboratory space (150 m<sup>2</sup>) indoor next to moon pool.

## » Multi-beam Sonar (reserved space)

Space to be allocated for a Multi-Beam Sonar system in double bottom. Space to be connected with required cables to the bridge. Sensor location to be arranged to avoid interference. The detailed sensor arrangement shall be to Owners' acceptance and approval.



# New Swedish icebreaker

- Capacity to escort and assist vessels during fibre-optic-cable laying operations as well as all year round maintenance operations
- High Ice Class – PC2
- Low environmental impact
- Multibeam Sonar
- Deck cranes
- Moon pool
- DPS







# North Pole Fiber project

Laying the foundations for  
Polar Connect



Co-funded by  
the European Union



Swedish  
Research  
Council



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22-EU-DIG-NPF

# Thank you!



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