

New Norwegian ice going Research Vessel *Kronprins Haakon*

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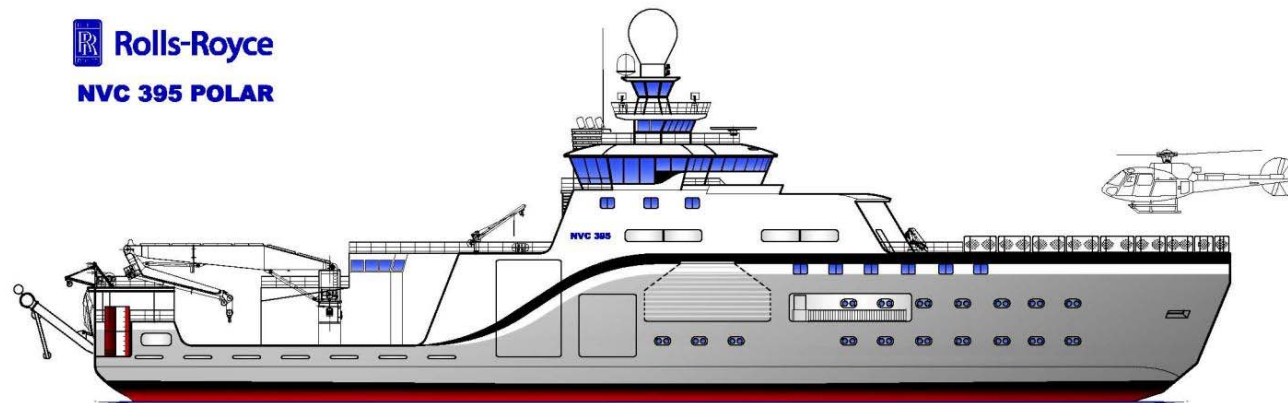


A long time in the making

- First proposal from NPI – end of 1999
- Feasibility study completed June 2007
- Design contract won by Rolls Royce Marine in 2008
- The initially proposed design has been modified and detailed in close cooperation with the user community.
- Concept approved by Ministry of Finance in 2011
- Funding approved by the Norwegian parliament for the 2013 budget
- Tender deadline next week (28.10.13)
- Shipyard contract signed December 2013
- Ship delivery mid- to late 2016



A long time in the making – first design 2008



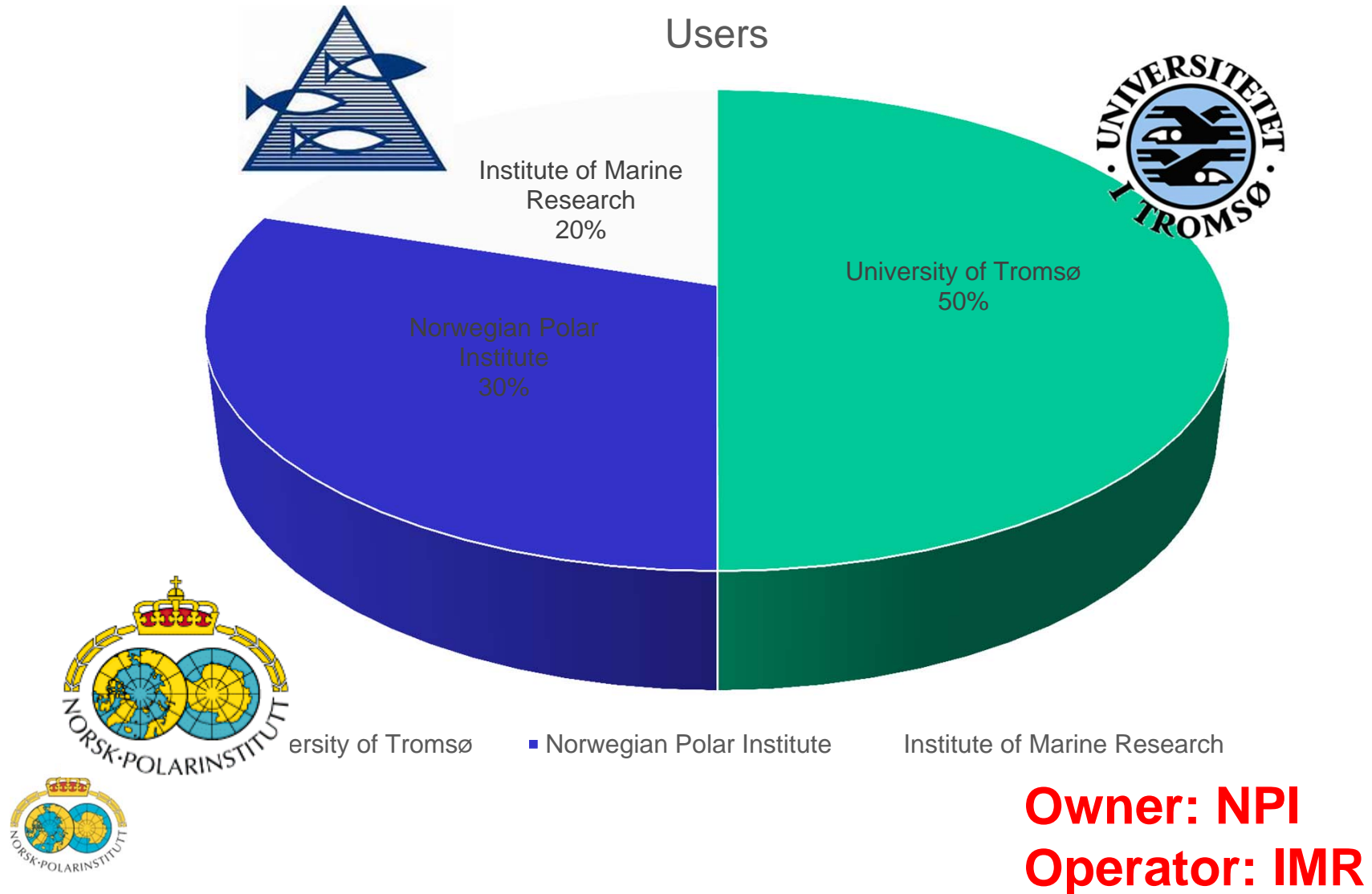
 **Rolls-Royce**
NVC 395 POLAR



A long time in the making – refined 2011



Owners and users



Technical details



- Length over all (LOA): 100,0m
- Breadth: 21,0m
- Draft: 8,0m
- Gross tonnage 9000T
- 4 diesel gensets (A/C) 17MW
 - 2x5MW and 2x3,5MW
- Two (Z-drives) aft 11MW
- Two tunnel thrusters fwd 2,2MW
- LNG-gensets for ice station use
- DP 2
- DNV-Class: POLAR 10
ICEBREAKER
- PC-3 *Year-round operation in second-year ice which may include multi-year ice inclusions.*



Technical details

- Accomodation for 55 persons in 38 cabins (15-17 crew).
- Maximum cruising range of approx. 15.000 nautical miles
- Endurance 65 days at cruising speed
- Designed to operate in winter ice with pressure ridges and multi-year ice
- Continuous ship speed when breaking 1,0 m ice thickness: 5 knots
- Continuous ship speed when breaking 0,4 m ice thickness: 12 knots
- Hull structure, appendages and cranes to operate down to at least -35° C



Technical details

- Helicopter
 - Hangar for two small/medium helicopters
 - Deck dimensioned for Norwegian heavy SAR-helicopters



Underwater acoustics instrumentation

- Scientific Split Beam Echo Sounders: 18, 38, 70, 120, 200 and 333 kHz with transducers both in drop keels and in arctic tanks in the hull.
- One Single Beam Echo Sounder with 12 kHz transducer mounted in "arctic tank" in the hull.
- One Scientific Multi Beam Sonar with transducer mounted in drop keel.
- Two omni-directional fisheries sonars, intermediate rang and long range.
- One Scientific Multi Beam Echo Sounder with transducer mounted in drop keel.
One Medium Depth Bathymetric Multi Beam Echo Sounder
- One Deep Water Bathymetric Multi Beam Echo Sounder
- One Sub Bottom Profiler
- Two off Acoustic Doppler Current Profilers (ADCP) 38 and 150 kHz with transducers both in drop keels and in arctic tanks in the hull.



Layout

Arranged and equipped with state of the art scientific instrumentation for

- oceanography
- marine biology
- geology (bottom coring and grabbing)
- trawling
- ROV and AUV operations
- Most of main working deck dedicated to laboratories and work deck area
- Moonpool and hangar for sampling in low temperatures

