

**Project 12297 "New icegoing research vessel"
and
Project 14259 "New Dr. Fridtjof Nansen"**

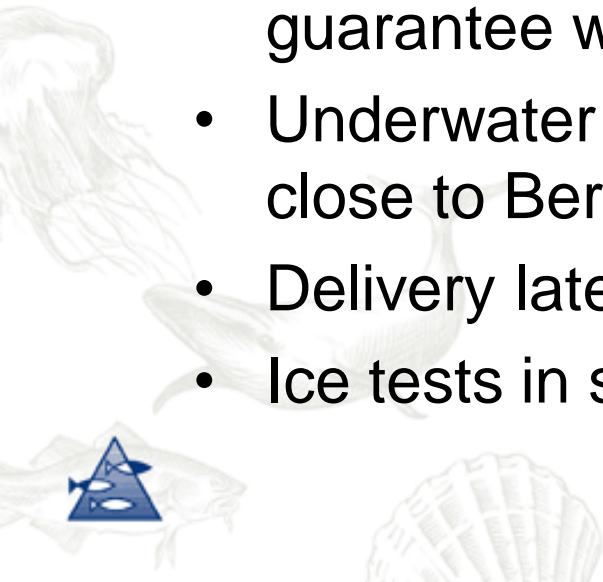
Status report

Per W. Nieuwejaar

June 2014

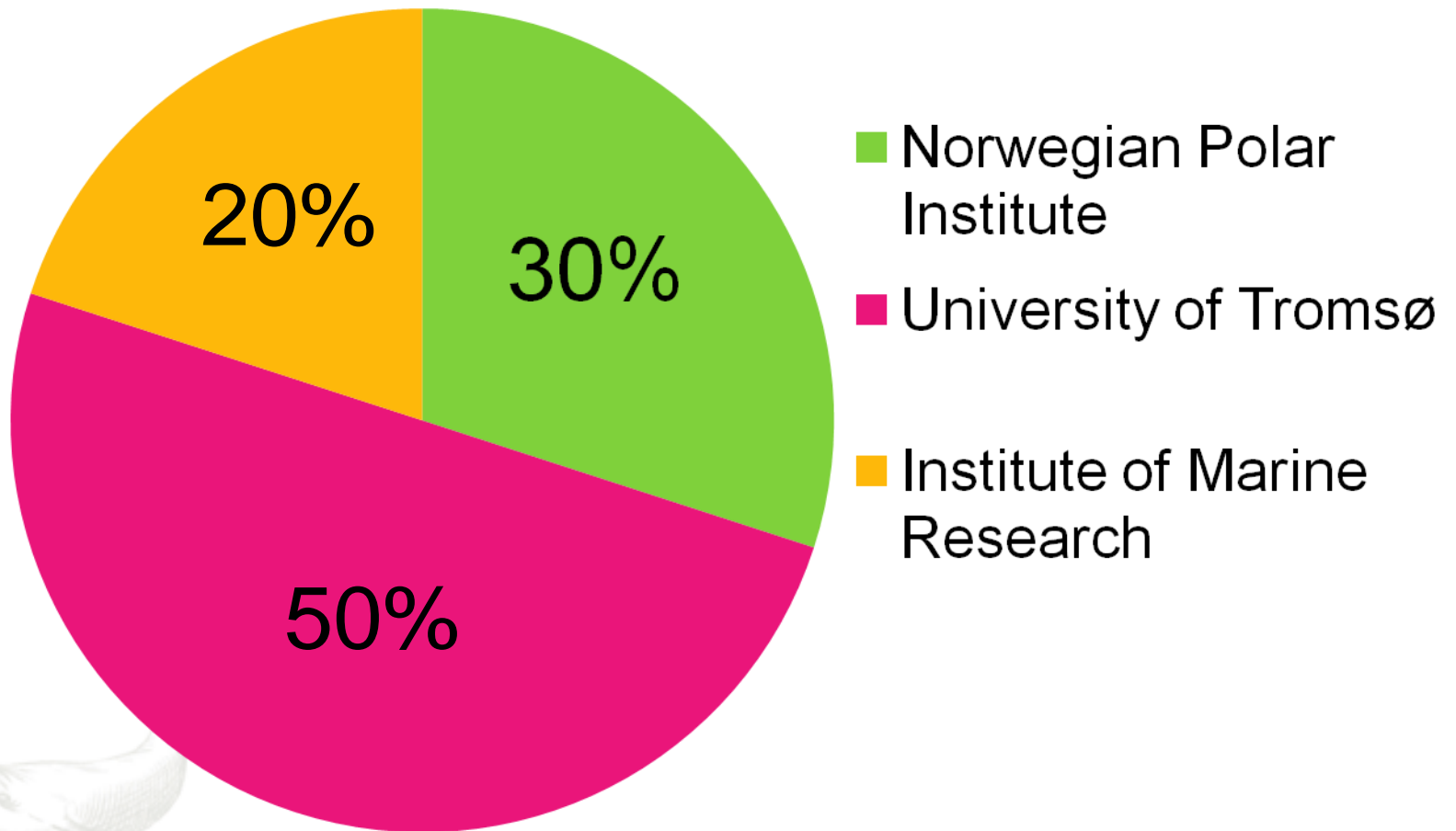
New icegoing research vessel "Kronprins Haakon"

- Contract signed with Italian yard group Fincantieri in late November 2013
- Rolls Royce Marine to complete Basic Design, and Fincantieri to complete Detailed Design in 2014
- To be built at FC yards at Riva Trigoso and Muggiano. Both yards close to La Spezia, Italy
- Final outfitting labs, owner equipment, sea trials and guarantee work at Langsten yard in Norway
- Underwater Noise measurements in Herdlefjorden, close to Bergen, Norway
- Delivery late 2016/early 2017
- Ice tests in spring 2017





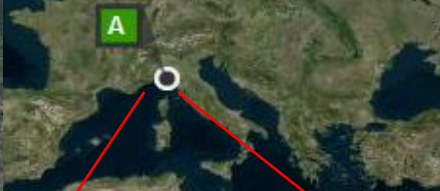
Owners



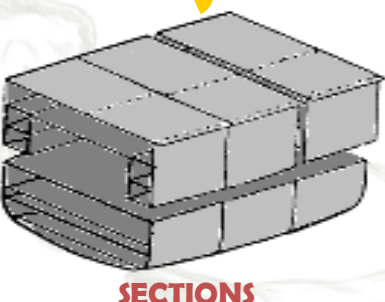
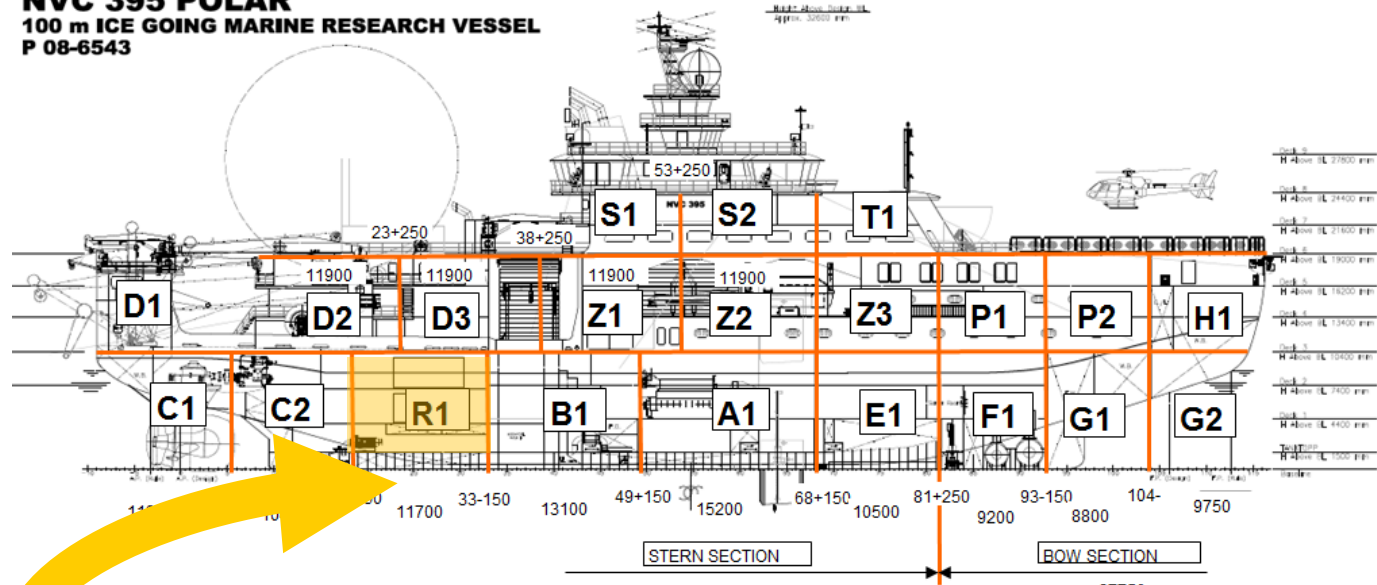
Technical details

- DNV + 1A1, E0, RP, NAUT-OSV, CLEAN DESIGN, PC-3 Icebreaker, DAT(-35°C), WINTERIZED BASIC, HELDK-SHF, DYNPOS-AUTS, COMF-V(3)/C(2), DK(+)
- Length over all (LOA): 100,0m
- Length between p.p. 84,80m
- Breadth moulded 21,00m
- Depth Main deck (3rd Deck) 10,40m
- Design draft approx. 7,80m
- Icebreaking maximum draft approx. 8,10m
- Maximum draft scantling approx. 8,65m
- Gross tonnage (1969 Conv) approx. 9000GT
- Frame spacing main frames/ice frames 800/400mm
- Main propulsion: Diesel/electric (A/C) approx 10MW thruster effect.
- Two azimuth thrusters (Z-drives) aft and two tunnel thrusters forward.
- Accommodation for 55 persons in 38 cabins.
- Helicopter capacity for two small helicopters.

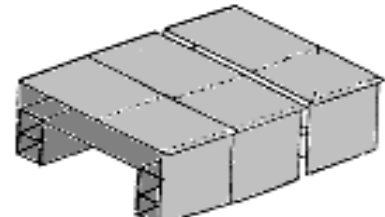




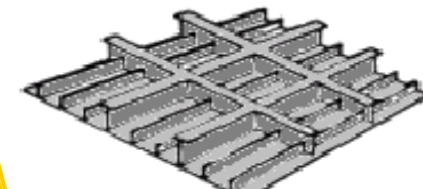
NVC 395 POLAR
100 m ICE GOING MARINE RESEARCH VESSEL
P 08-6543



SECTIONS



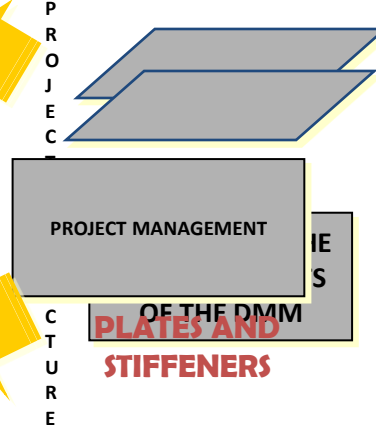
UNITS



FLAT BLOCKS



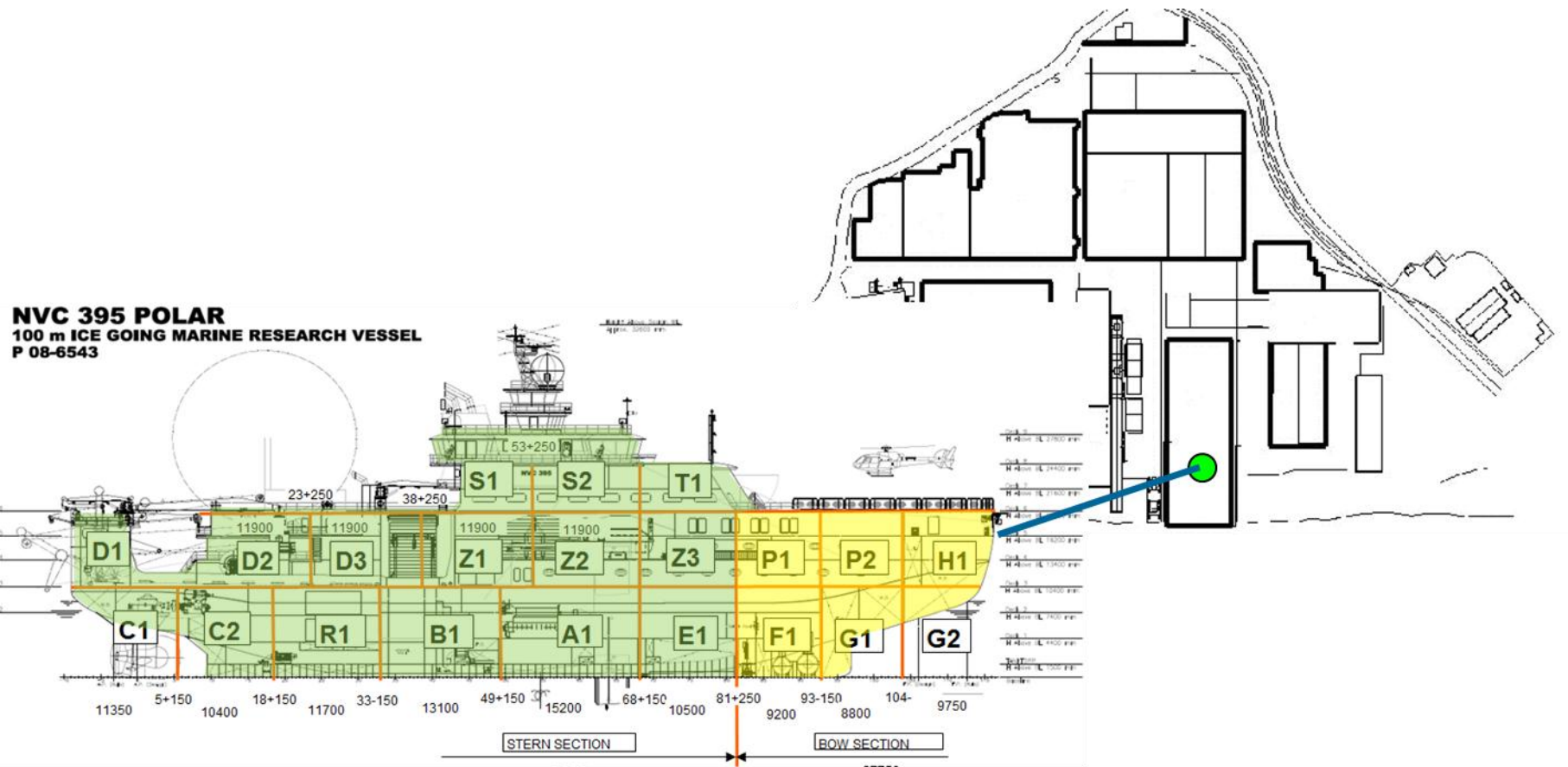
BENT BLOCKS



Riva Trigoso



Muggiano



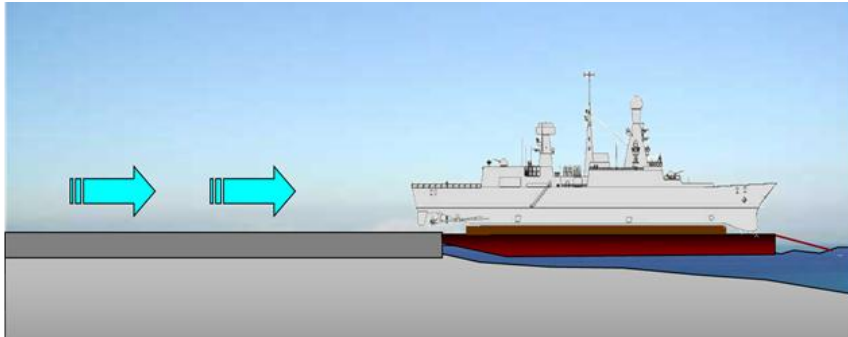
The two sections will be joined on platform



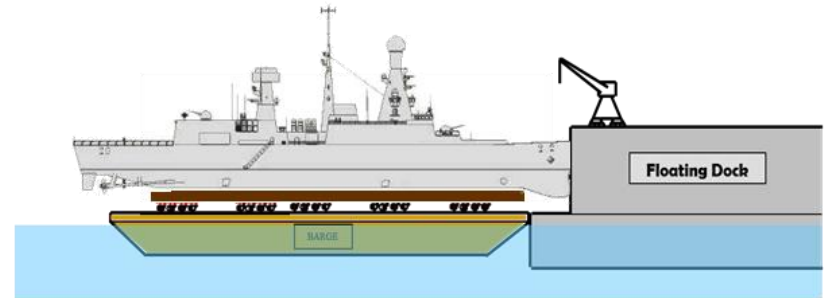
Riva Trigoso



Muggiano



Roll Out...



...And Dock away



Ship is moved to the barge



The ship is transferred from Riva Trigoso to Muggiano Yard



The ship is layed on dock



The dock is overflowed
(LAUNCHING)



European major icebreakers (exmt Russia)

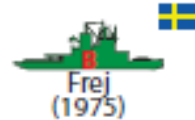
LATVIA
(1)



NORWAY
(1)
+ 1 planned



SWEDEN
(7)



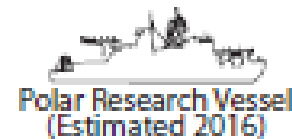
FINLAND
(7)



DENMARK
(4)



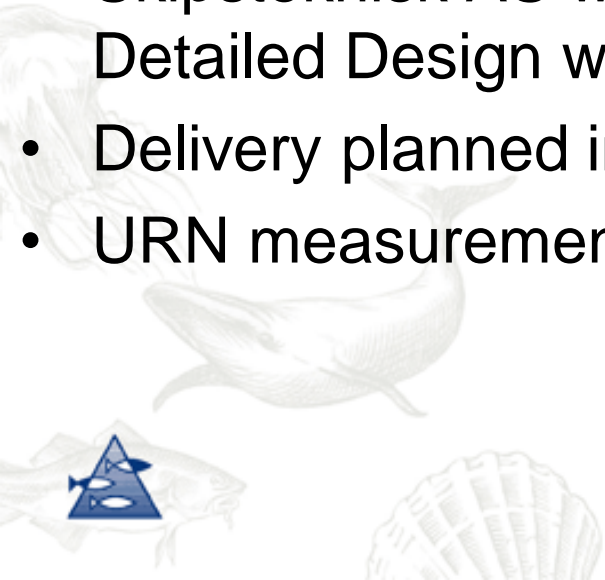
GERMANY
(1)
+ 1 planned



New "Dr. Fridtjof Nansen"

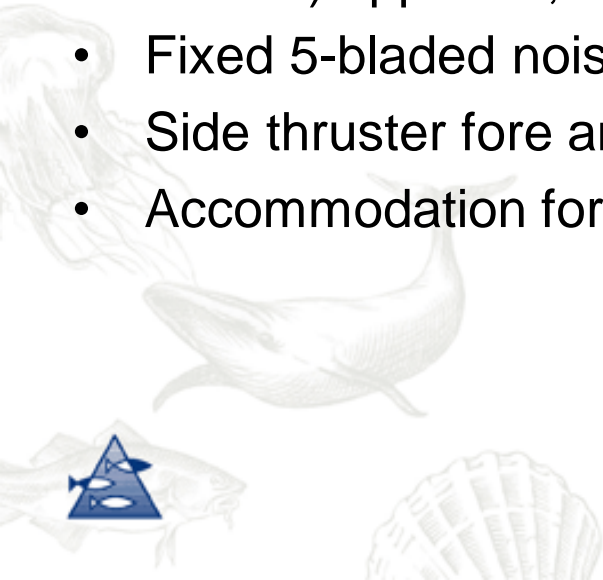
- Owner: Norwegian Foreign Aid Directorate
- User: UN Food and Agriculture Organization (FAO)
- Scientific Services and Vessel Services (operator): IMR
- Area of operation: Africa, Asia, Latin America

- Contract signed with Astilleros Gondan in Spain in March 2014
- Skipsteknisk AS will complete Basic Design and share Detailed Design with the yard during 2014
- Delivery planned in spring of 2016
- URN measurements in Spain (Cartagena) or Norway (Bergen)



Technical details

- DNV + 1A1, E0, Ice-C, SPS, DYNPOS-AUT, NAUT-AW, COMF-C(2)V(2), BWM-T, TMON, Recyclable
- Length over all (LOA): 74.10m
- Length between p.p. 66.10m
- Breadth moulded 17.40m
- Depth Main deck 8.60m
- Design draft 5.40m
- Main propulsion: Diesel/electric (DC or AC), (3 gensets and 2 DC or AC motors) approx 4,5MW genset effect and approx 3MW thruster effect.
- Fixed 5-bladed noise reduced propeller.
- Side thruster fore and aft, azimuth thruster forward.
- Accommodation for 45 persons in 32 cabins.



Selected yard

- Astilleros Gondan
- www.gondan.com

Castropol, Asturias









Questions?