

# Designing Polar Research Vessels

A collaboration between industry,  
scientists and government

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# The next generation polar vessels



- RV Kronprins Haakon
- Owner: Norwegian Polar Institute, UiT and IMR
- Operator: Institute of Marine Research
- Yard: Fincantieri
- LoA 100 m
- Breadth 21 m
- Accommodation for 55 crew and scientists



- RRV Sir David Attenborough
- Owner: NERC, National Environmental Research Council
- Operator: BAS, British Antarctic Survey
- Yard: Cammell Laird
- LoA 129 m
- Breadth 24 m
- Accommodation for 90 crew and scientists



# Polar Research Vessel 'Kronprins Haakon'

3

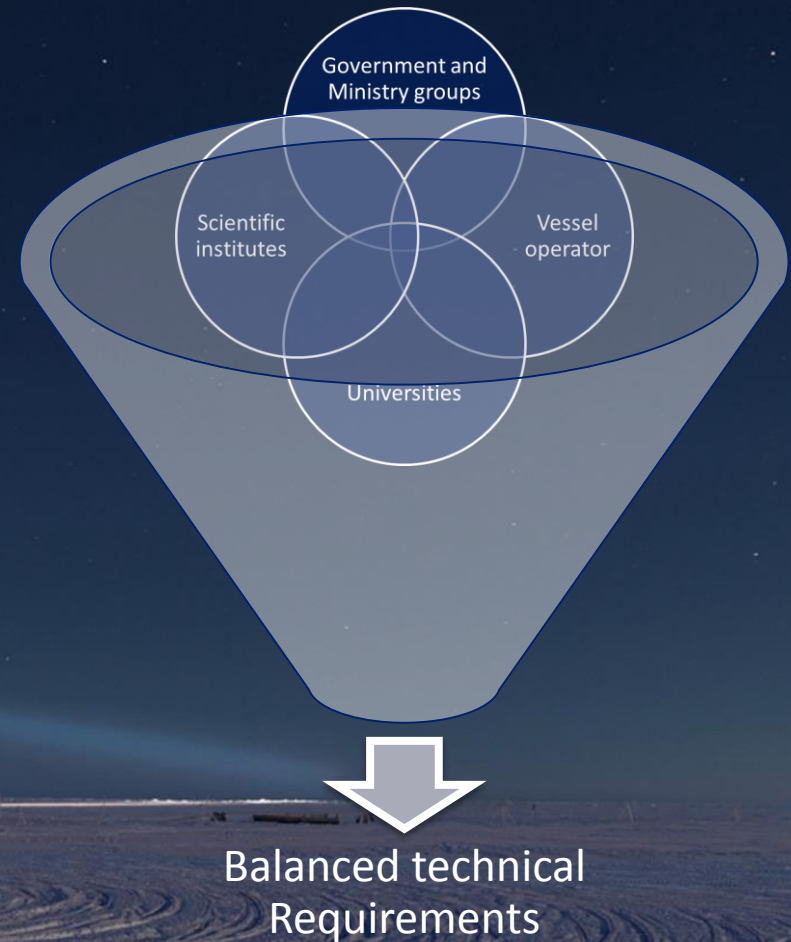
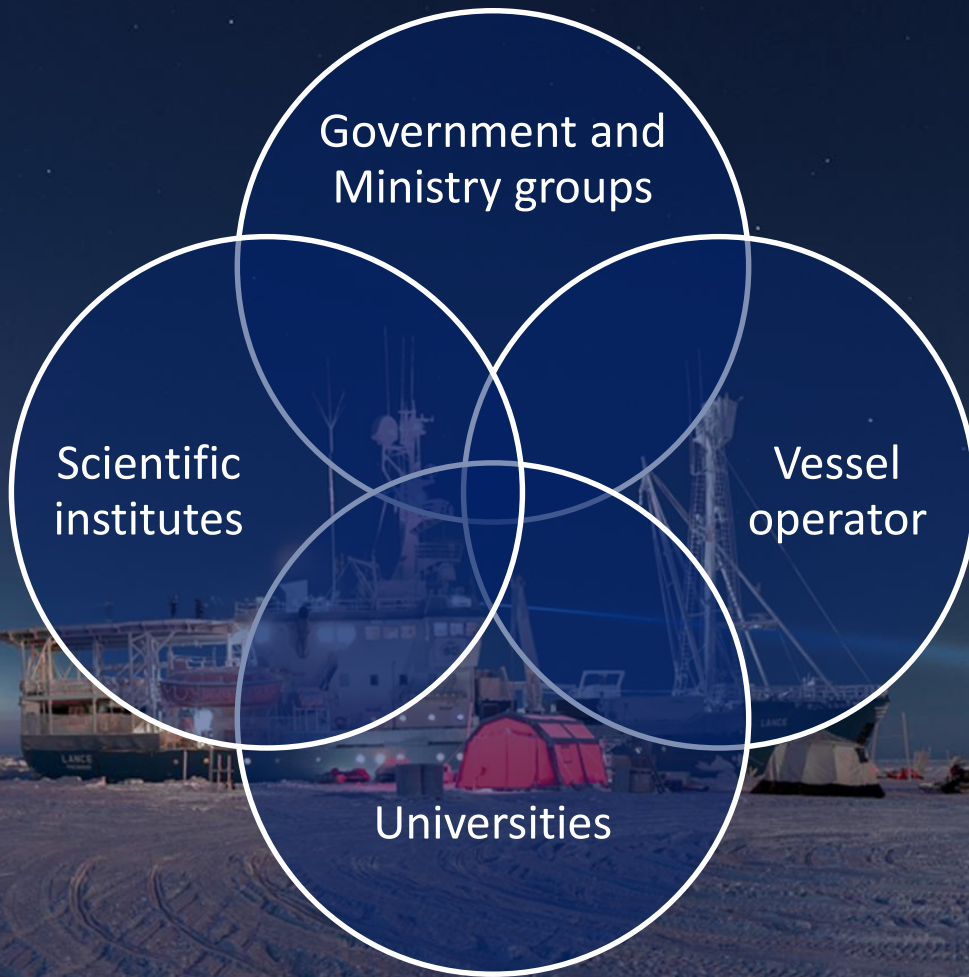
- First specially built Norwegian polar research vessel since 'Fram' 1891
  - Many stakeholders
  - High expectations
- 
- An interesting journey from idea to reality



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# Stakeholders



Picture: Norsk Polarinstitutt



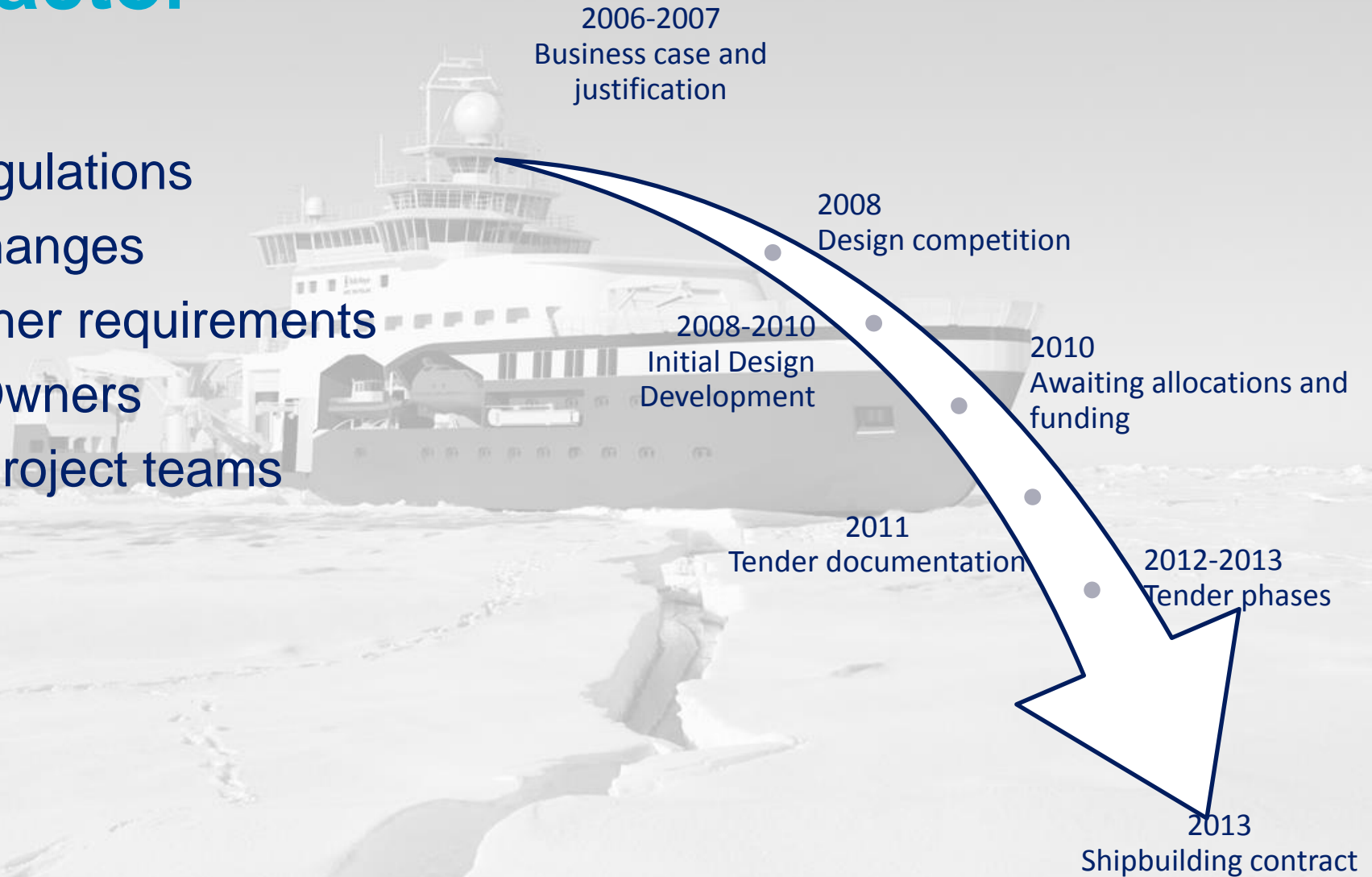
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# The time factor

5

Impacts on:

- Rules and Regulations
- Technology changes
- Changing Owner requirements
- New budget Owners
- Continuity in project teams



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# Combining different roles

- Icebreaker and cold climate operations
- Oceanographic Research
- Passengers/Special Purpose Personell
- Cargo/Logistic vessel
- Dangerous goods
- Helicopter operations
- Emergency rescue

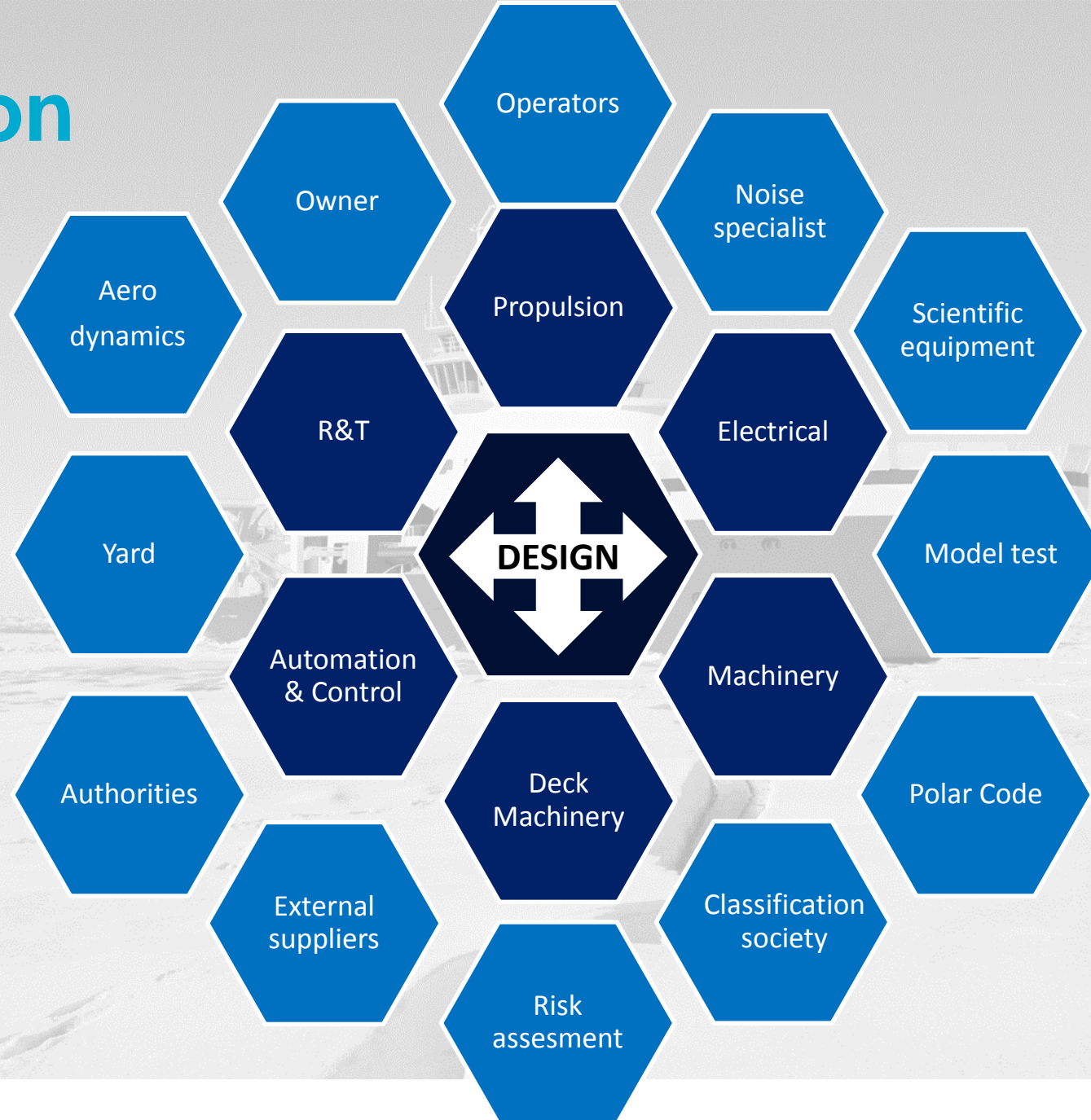
It is the Ship Designers responsibility to capture the requirements and to balance contradictions.

# Contradictory requirements













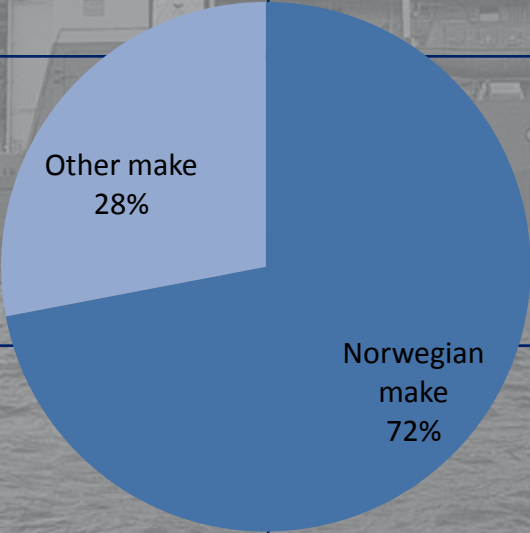










# Integration



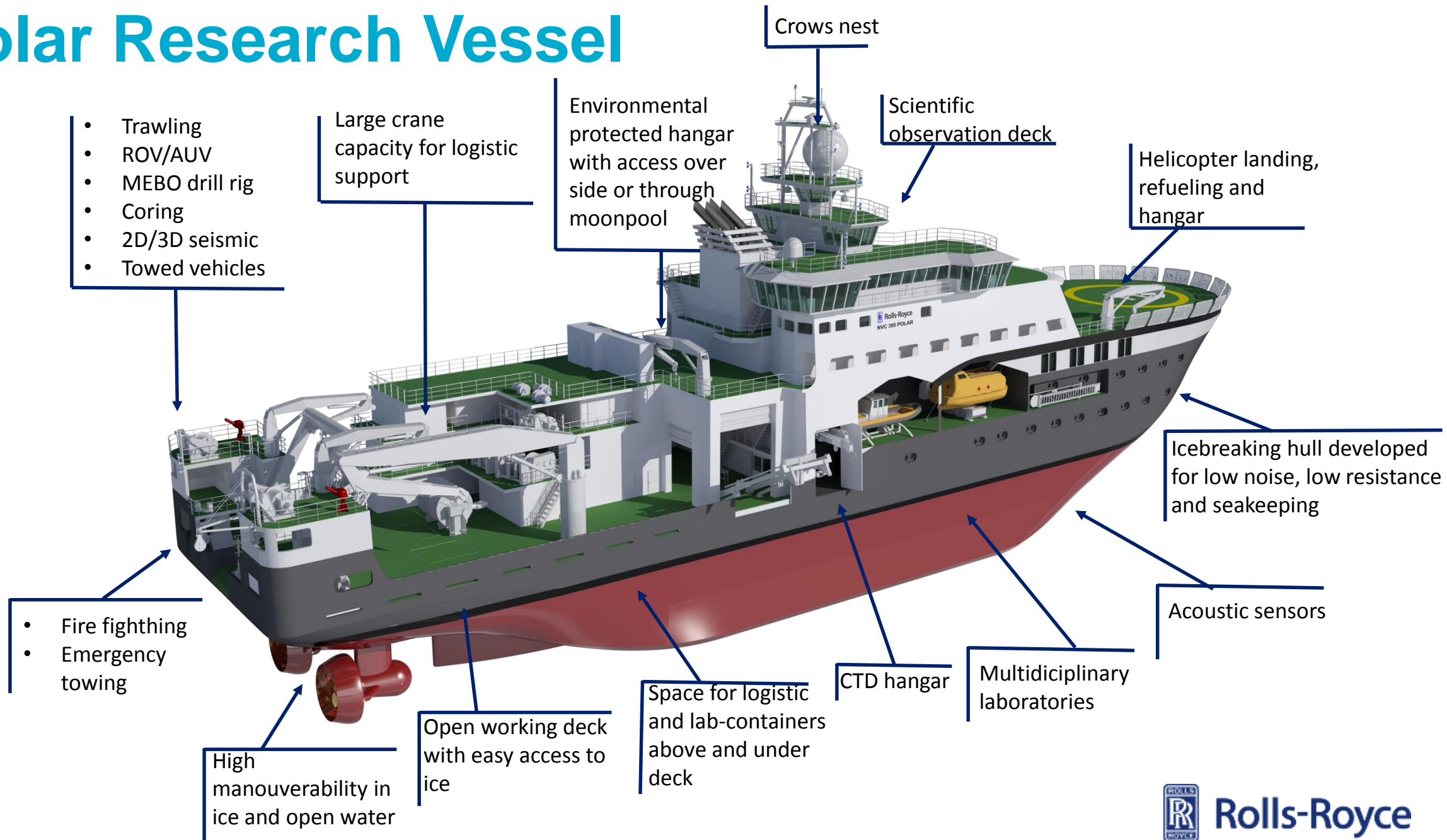
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# Norwegian industry

 <b>Rolls-Royce</b>	 <b>SCANMAR</b>	 KONGSBERG		 a Fincantieri company							
		<h2>Equipment suppliers</h2>  <table border="1"><thead><tr><th>Category</th><th>Percentage</th></tr></thead><tbody><tr><td>Norwegian make</td><td>72%</td></tr><tr><td>Other make</td><td>28%</td></tr></tbody></table>		Category	Percentage	Norwegian make	72%	Other make	28%		
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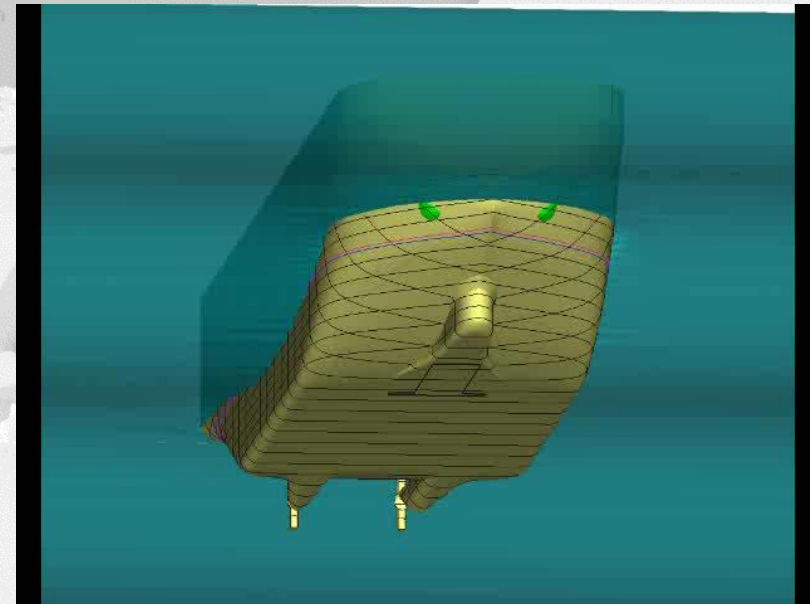
# Polar Research Vessel



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# ....and finally, verification and successful seatrials<sup>11</sup>



res: Norsk Polarinstitutt



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**THANK YOU FOR YOUR KIND ATTENTION**



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