Overview of the past year

Railotech

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Project: 2050
Marketing
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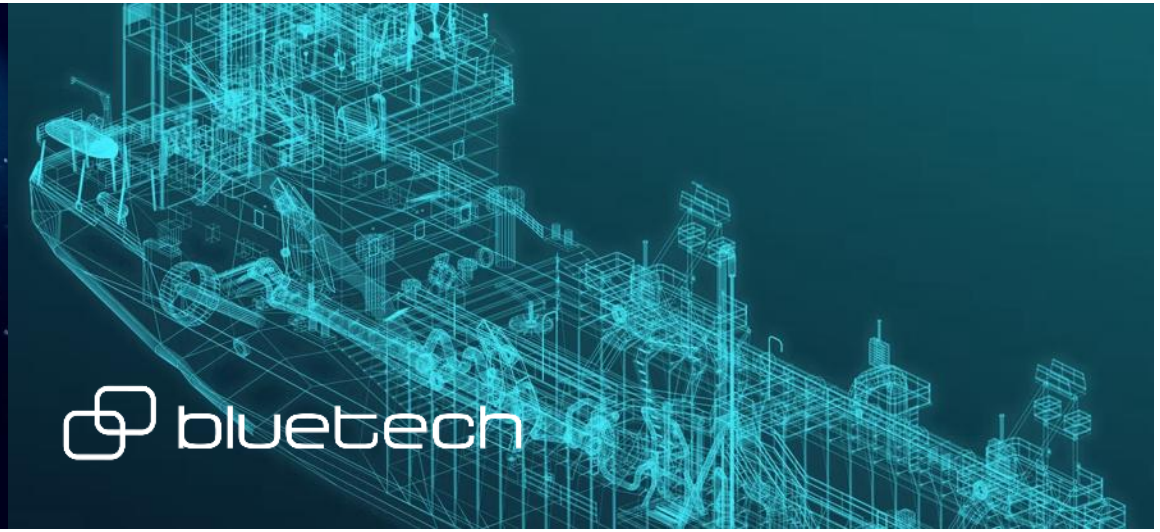
A ship design powerhouse



- Transaction completed during summer 2025 to merge Railotech and Bluetech under same ownership of Arctic Marine Technology Group Oy
- Both companies continues independent operations under own brand
- Entire design and engineering chain from early studies and concept design to basic and production design
- A team of approximately 150 experts

The ice technology partner

Railotech specializes in development, design, engineering, consulting and testing services for:

- ice-going vessels, icebreakers, offshore marine structures and marine mobility solutions in icing waters
- special purpose government vessels

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Building the icebreaker powerhouse

1924 — Steam-powered ***Voima***, the first icebreaker built in Finland

1954 — Diesel-electric ***Voima***, the first icebreaker with two bow propellers

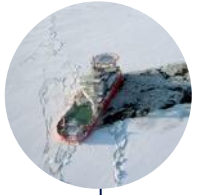
1969 — **Wärtsilä Ice Model Basin** built to support icebreaker development

1974 — **Atle/Urho class** developed using ice model tests

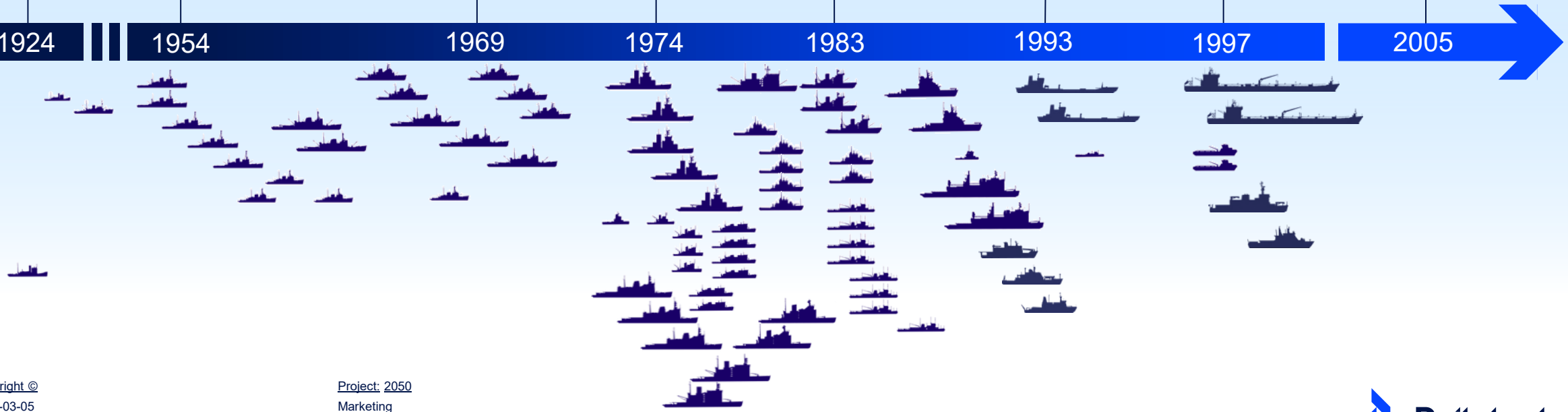
1983 — **Second-generation** ice model testing laboratory commissioned

1993 — Revolution in Arctic shipping: **Double Acting Ship (DAS)** principle

1997 — Demonstration of Finnish icebreaker innovation: **Oblique icebreaker**



2005 — **Cumulative icebreaker know-how** separated to an independent company



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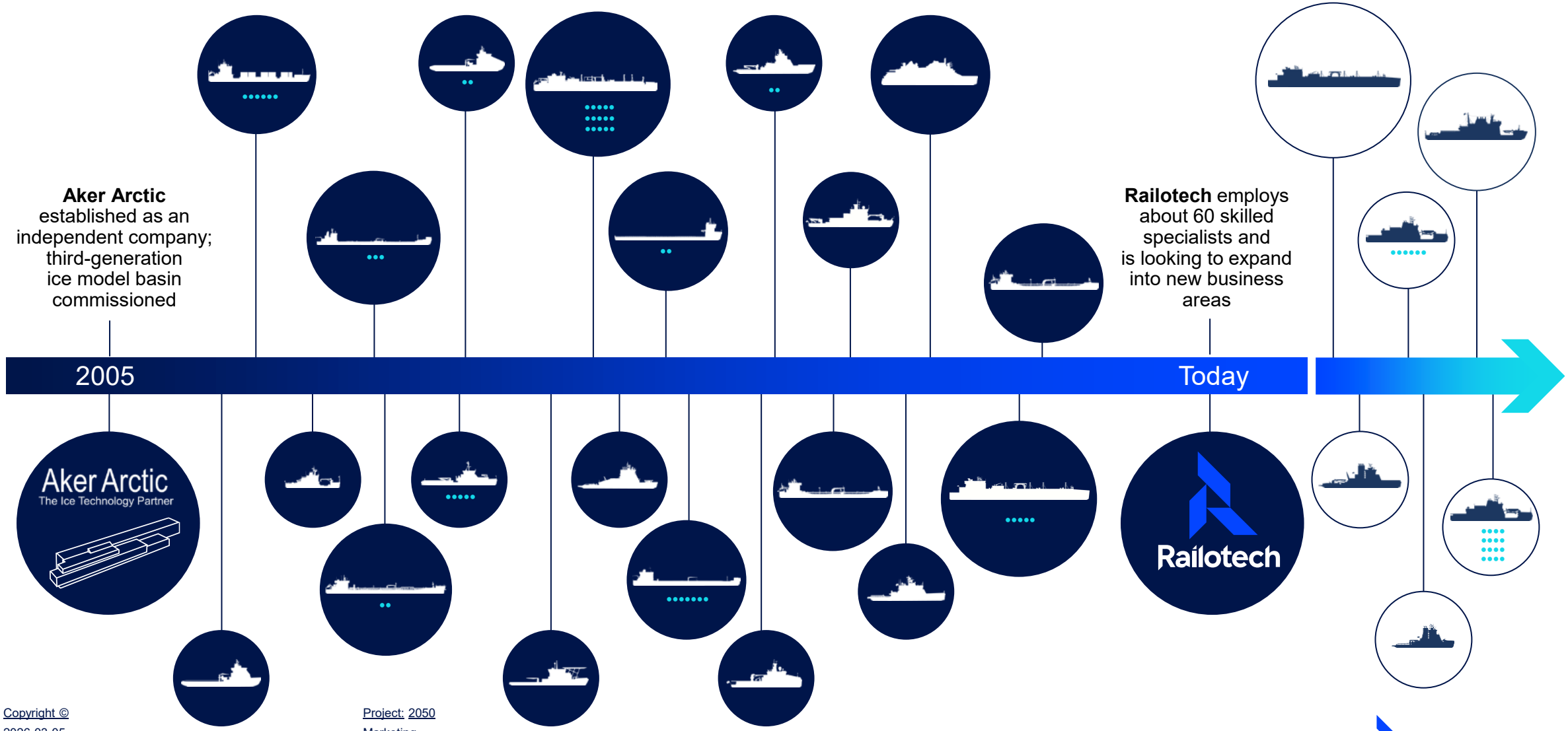
59 icebreaking vessels in 11 shipyards



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Our offering

Advisory

For decision making

Investment advisory
Feasibility study

Design & Testing

For building new and changing existing ships

Concept design and engineering
Model tests
Propellers and shaftlines
Build phase support
Full-scale tests

Operational support

For mariners

Ice Load Monitoring System (ILMS)

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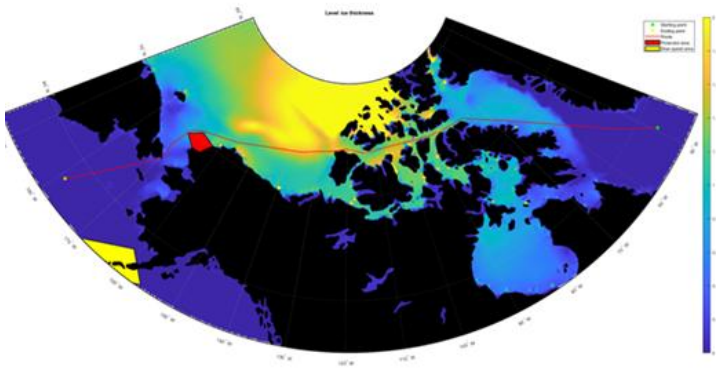
Our services and products



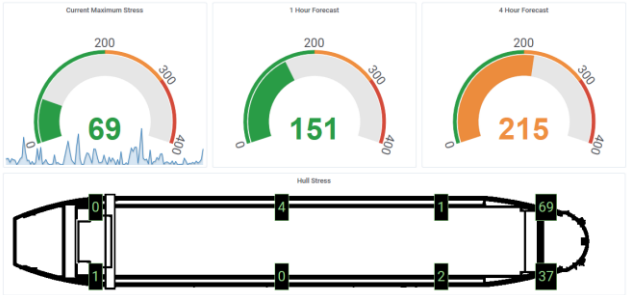
Advisory

Concept design & Engineering

Propellers & Shaftlines

Ice model testing

Full scale testing



Sample visualization of ARC ILMS real-time display

Ice Load Monitoring System (ILMS)

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New Finnish B+ icebreaker

Tailored for demanding icebreaking assistance operations in the Baltic Sea

Bespoke design incorporating client requirements, designer experience and operator feedback

Tendering process ongoing

Delivery by September 2029

Main particulars	
Length	96.0 m (315.0 ft)
Beam	24.0 m (78.7 ft)
Design draught	7.2 m (23.6 ft)
Displacement	7,500 t (7,380 LT)
Propulsion power	10.5 MW (14,100 hp)
Ice class	Polar Class 5 Icebreaker(+)

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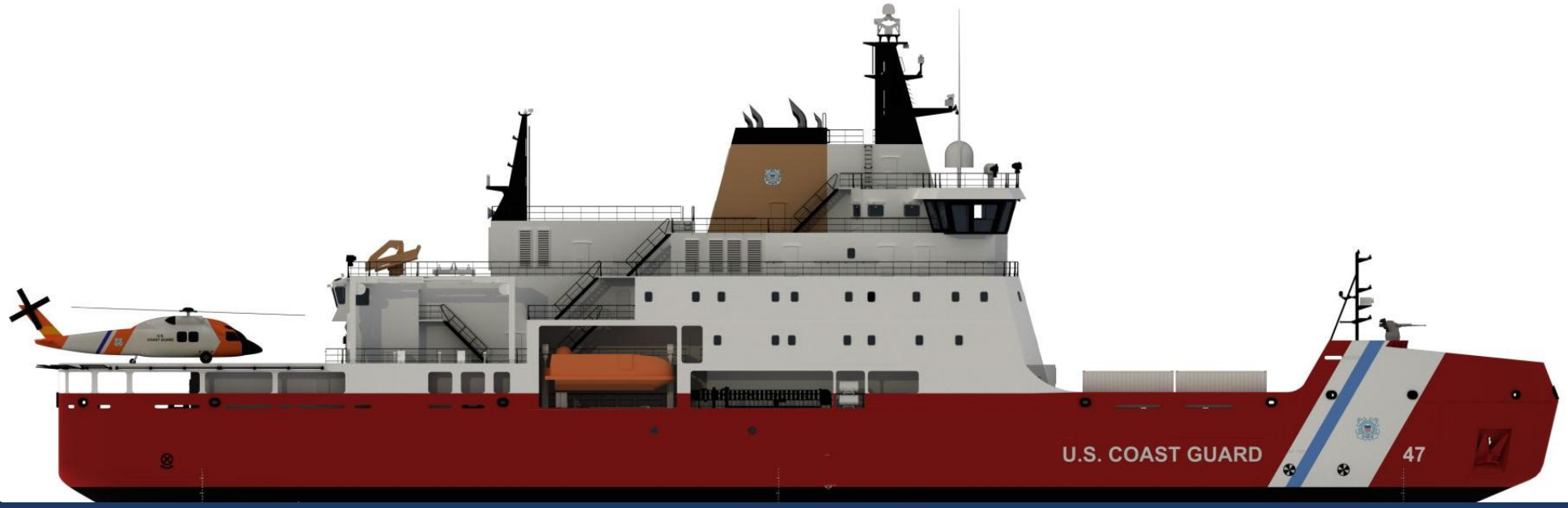
Arctic Security Cutters (ASC)

Versatile platform designed from the keel up for North American coast guard operations

Based on CCG Multi-Purpose Icebreaker (MPI) design developed jointly with Seaspan

USCG ASCs and CCG MPIs will form the largest class of modern icebreakers in the world — 24 vessels in total

Main particulars	
Length	99.9 m (327.8 ft)
Beam	20.3 m (66.6 ft)
Design draught	6.2 m (20.3 ft)
Displacement	9,000 t (8,860 LT)
Propulsion power	7.2 MW (9,650 hp)
Ice class	Polar Class 4 Icebreaker(+)



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Thank you

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