



HiA00S

HIGH ARCTIC OCEAN OBSERVATION SYSTEM
2023-2027

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OVERALL OBJECTIVE

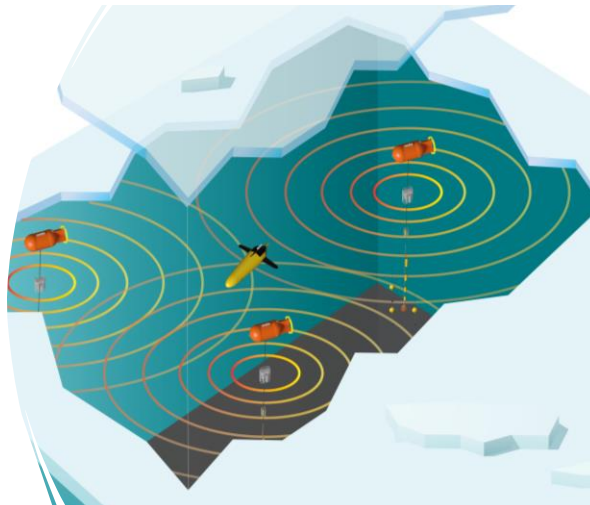
Advance the uptake of new **ocean observing capabilities and capacity** in the **high Arctic** to strengthen European and national infrastructures in their effort to **support new and ambitious research within climate, environment and geohazards.**



Roadmap

HOW & WHERE

Developing, implementing, and validating several **ocean observing technologies** to improve **data collection in the ice-covered Arctic Ocean.** A **network of multipurpose moorings** will be deployed for two years in the deep **Nansen and Amundsen Basins.**



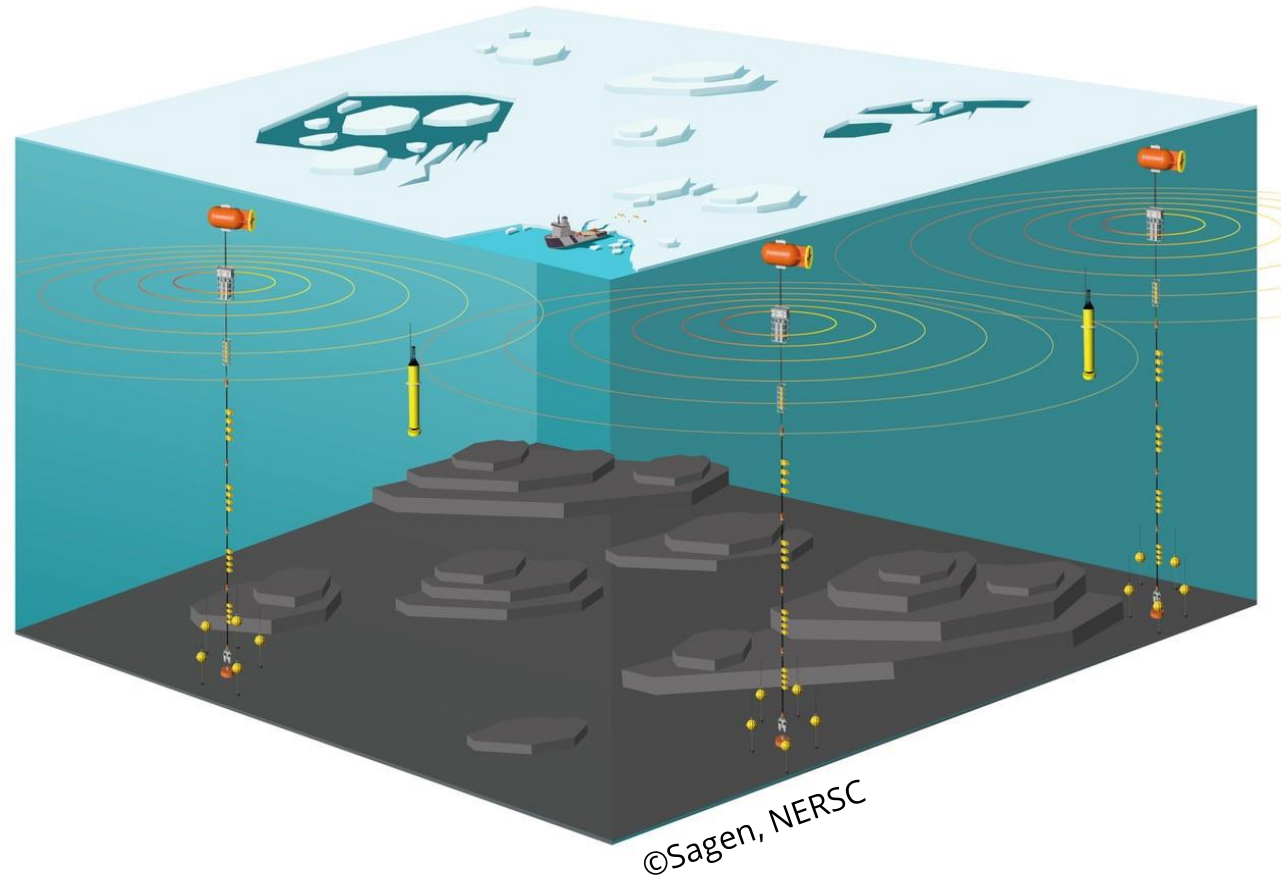
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Technology

CAATEX
Coordinated Arctic Acoustic Thermometry Experiment

OBSERVING TECHNOLOGIES

The **network of multipurpose moorings** will provide **point measurements of ocean and sea ice and active and passive acoustic data** for several applications, including **acoustic thermometry, geo-positioning of underwater floats, detection of marine mammals, geohazards and human generate noise.**





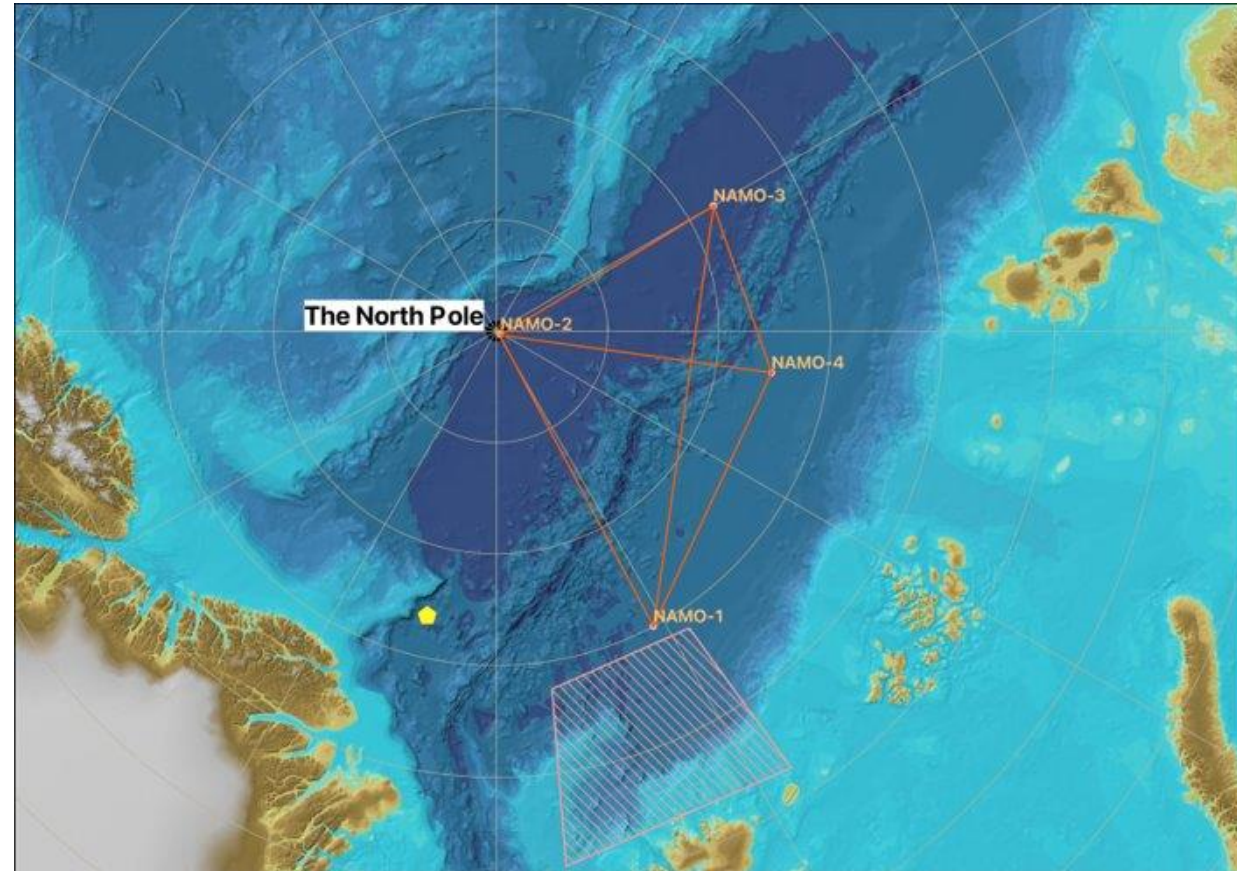
EXPERIMENT | AREA & SCHEDULE

2023 Pre-investigation and testing of equipment.

2024 Deployment of mooring network in the Nansen and Amundsen Basin. Testing of new tech near Bergen.

2025 Deployment of regional network North of Svalbard with new mooring technology. Testing of acoustic receiver buoys drifting with the ice.

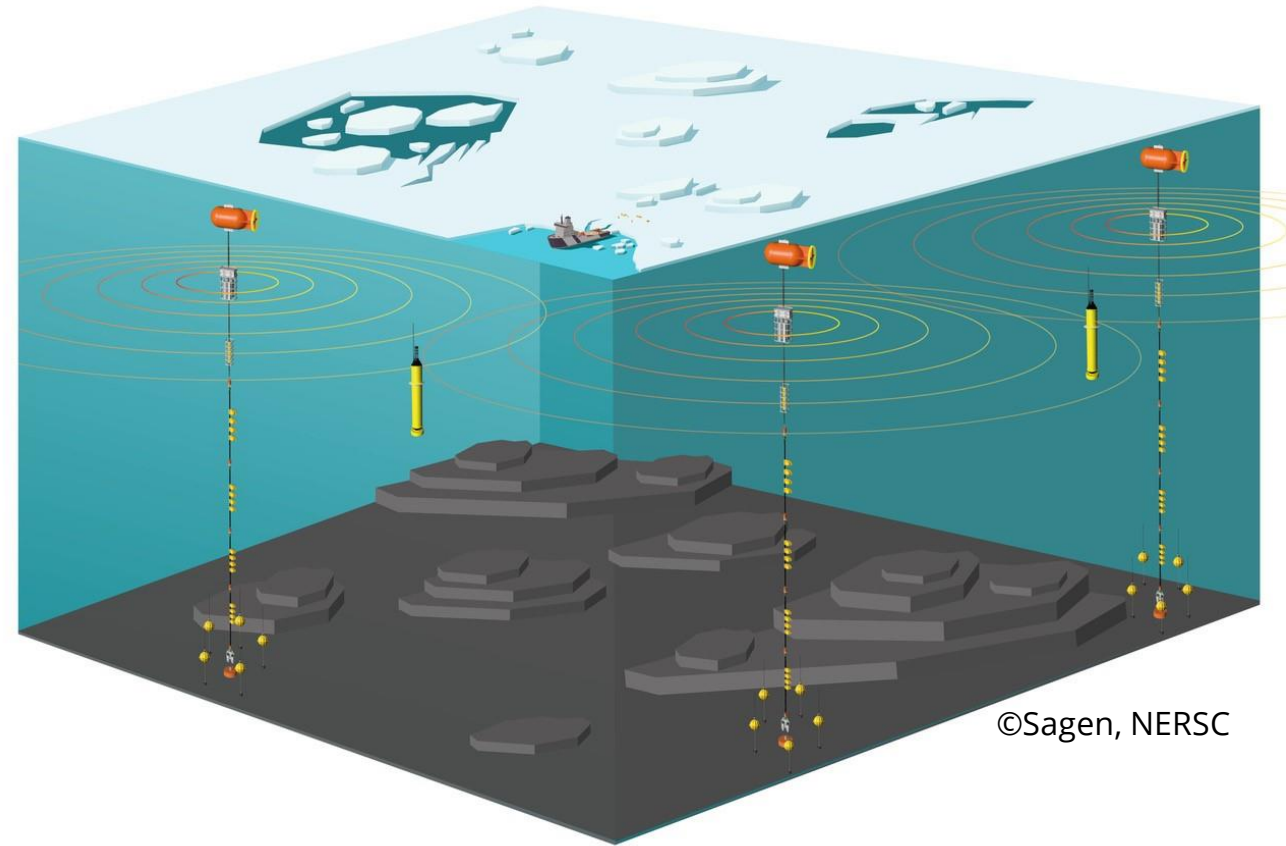
2026 Full recovery of the mooring systems.



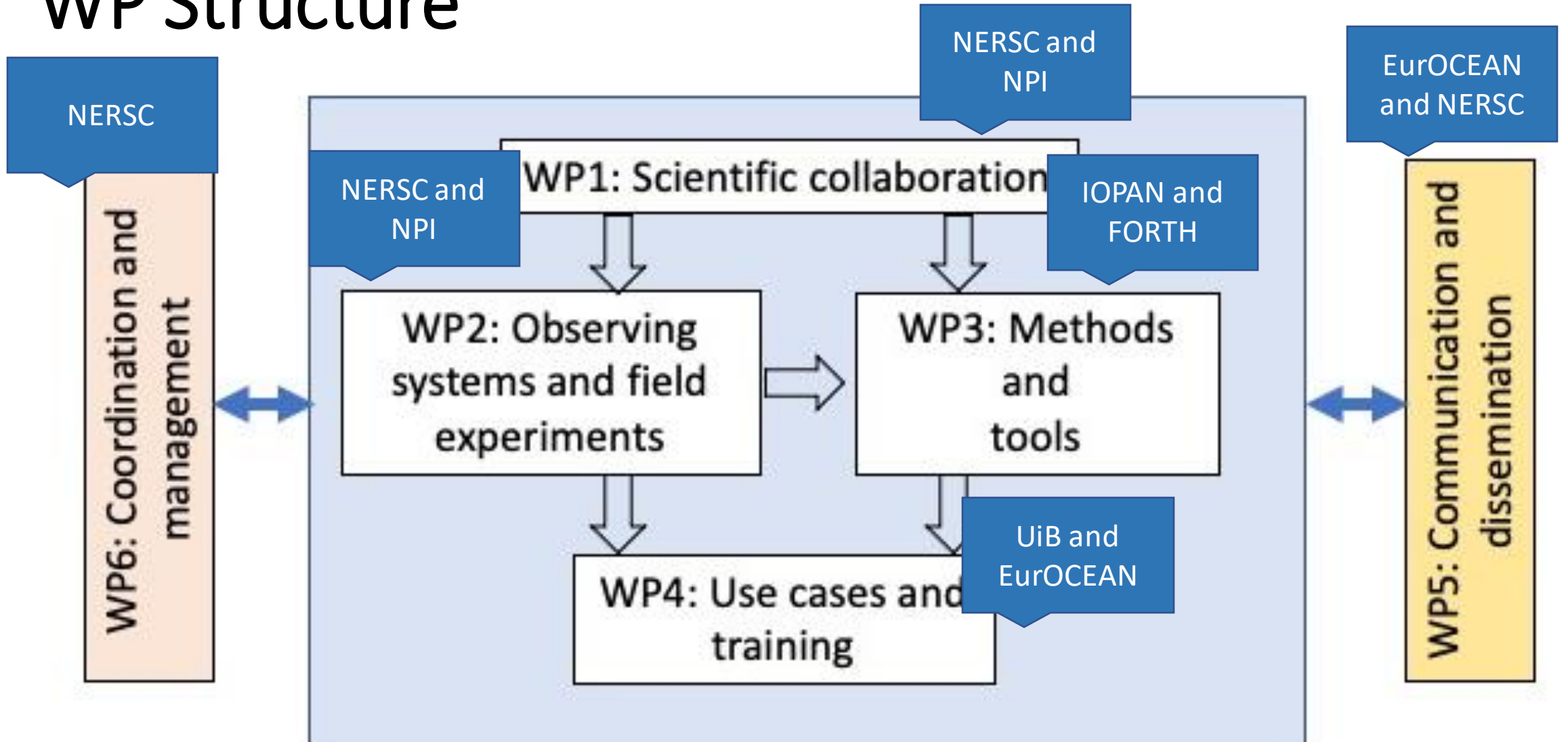
The HiA00S mooring network NAMO 1- 4

MISSION

- 1** Establish collaboration with existing and emerging research infrastructures in the Arctic;
- 2** Improve the observing capabilities in ice-covered Arctic Ocean through new infrastructure;
- 3** Unlock new observing capacity to RIs and researchers through methods, tools and training;
- 4** Advance observing systems in the Arctic building on subsea technology;
- 5** Reduce environmental impact of Arctic observing systems;
- 6** Comply with the FAIR principles and contribute to Open Science.



WP Structure





HiA00S



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