

SIOS Marine Infrastructure Workshop

An introduction to the Atlantic-Arctic Distributed Biological Observatory (A-DBO)

4. oktober 2023

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ARCTIC
PASSION

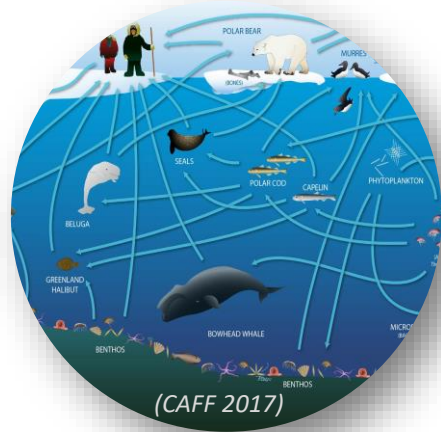


SIOS
SVALBARD INTEGRATED ARCTIC
EARTH OBSERVING SYSTEM

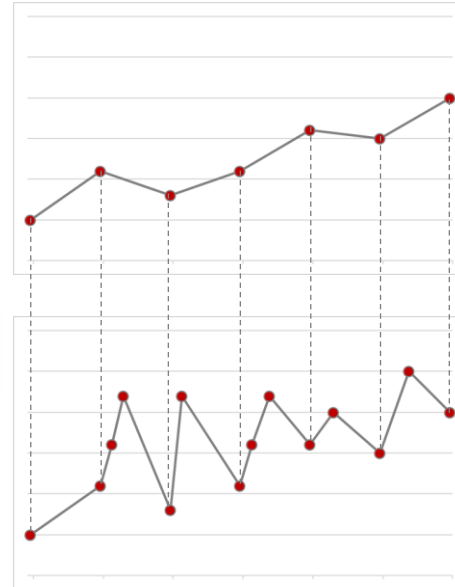
Overview – what is the A-DBO?



Collaborative framework
- leverage our scientific outcomes



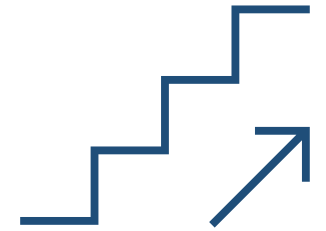
Ocean Ecosystem focus
- multidisciplinary efforts to decipher its functioning



Joint efforts at Key Sites
- increase sampling frequency and number of parameters



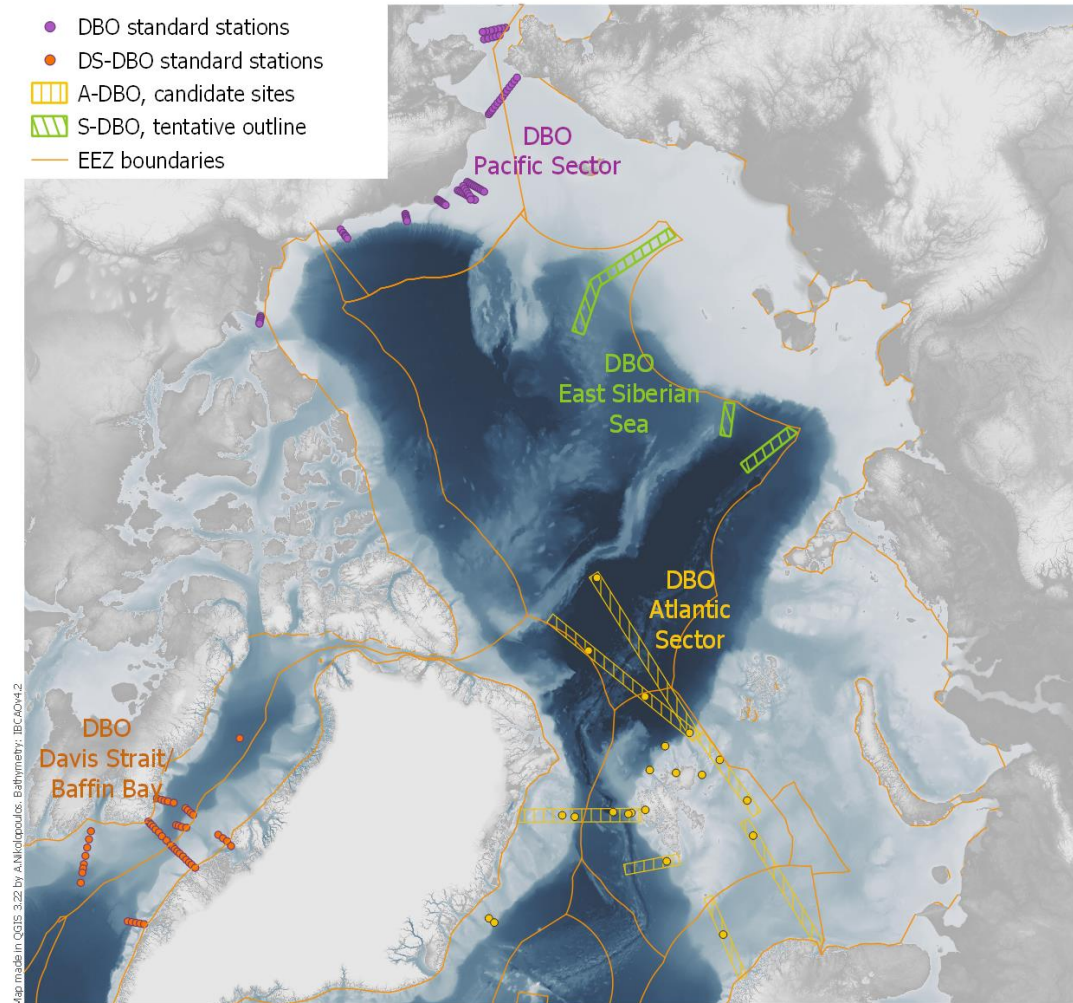
Continuity
- bridge over short-term and long-term efforts



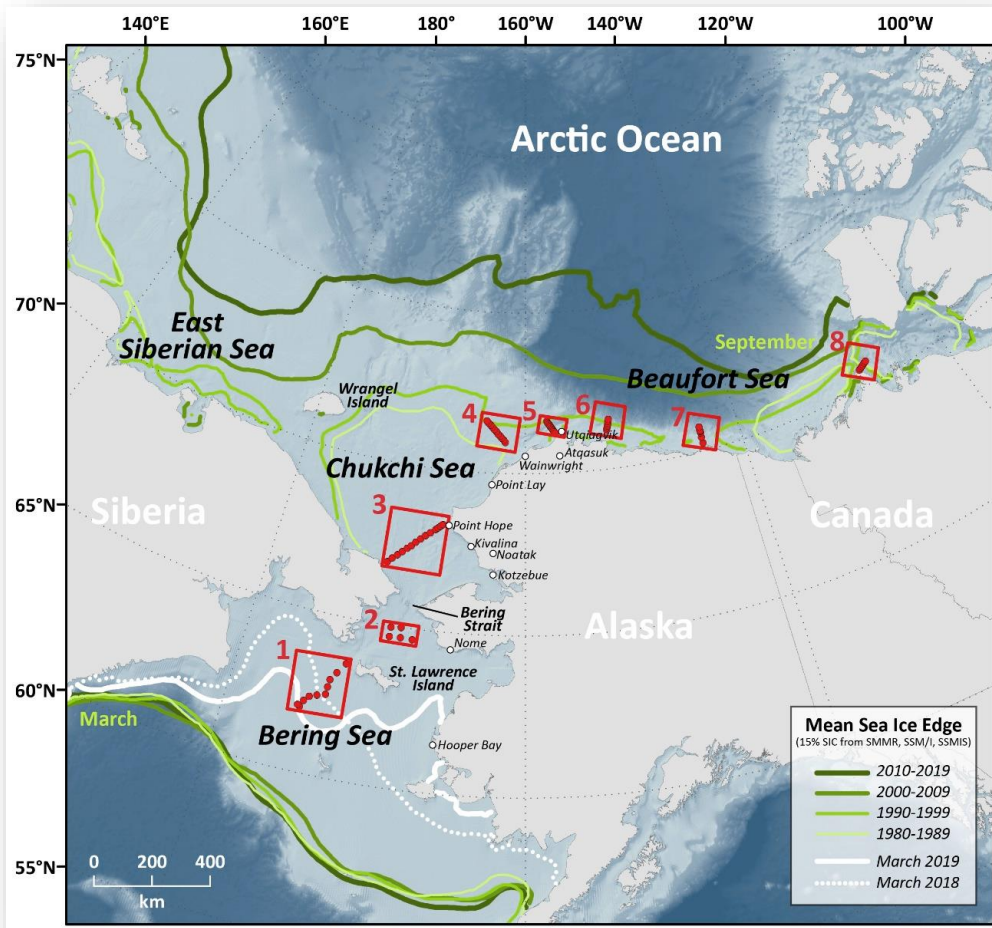
Advancement
- increase observational capacity, improve Info&Data flow

Overview – what is the A-DBO?

A-DBO is one of, currently, four DBOs in the Arctic Ocean and covers the Atlantic-Arctic gateways



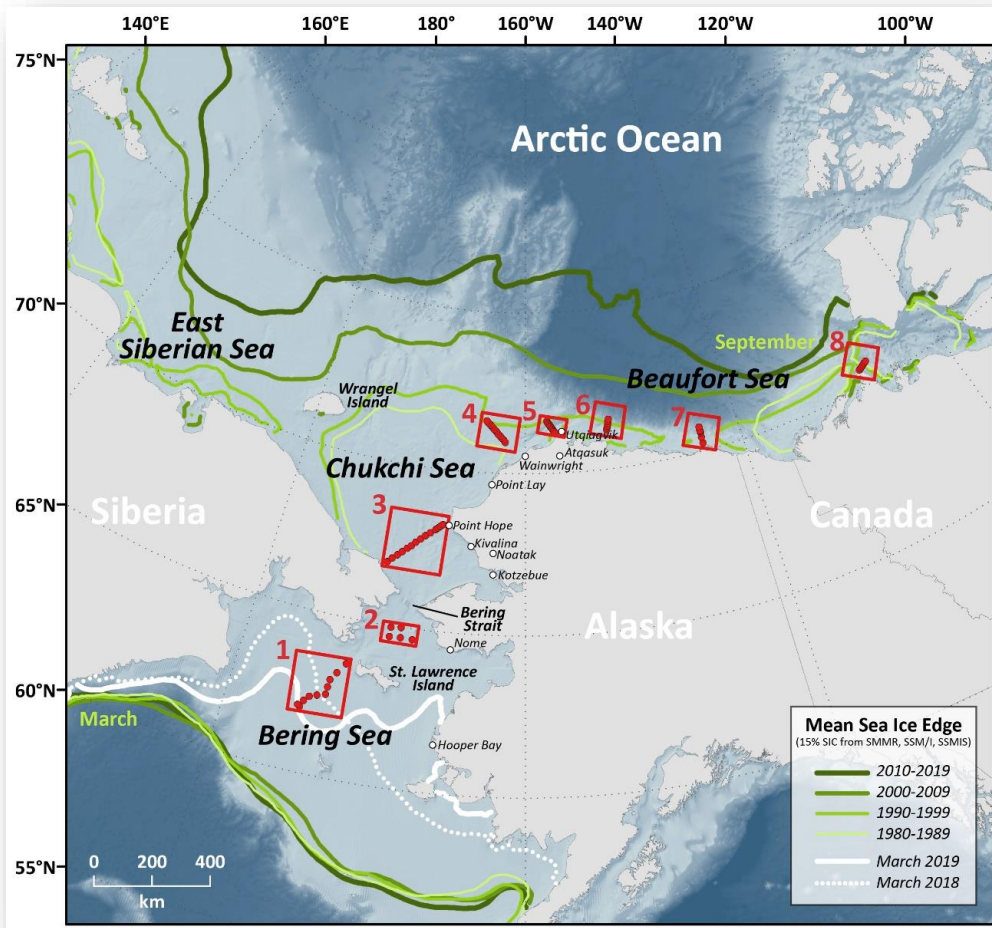
Background: the pioneering DBO



Karen Frey, Clark University

“There is a need for bridging and expanding ongoing observational efforts to improve the sampling frequency, gain continuity, and optimize the scientific outcomes.”

Background: the pioneering DBO

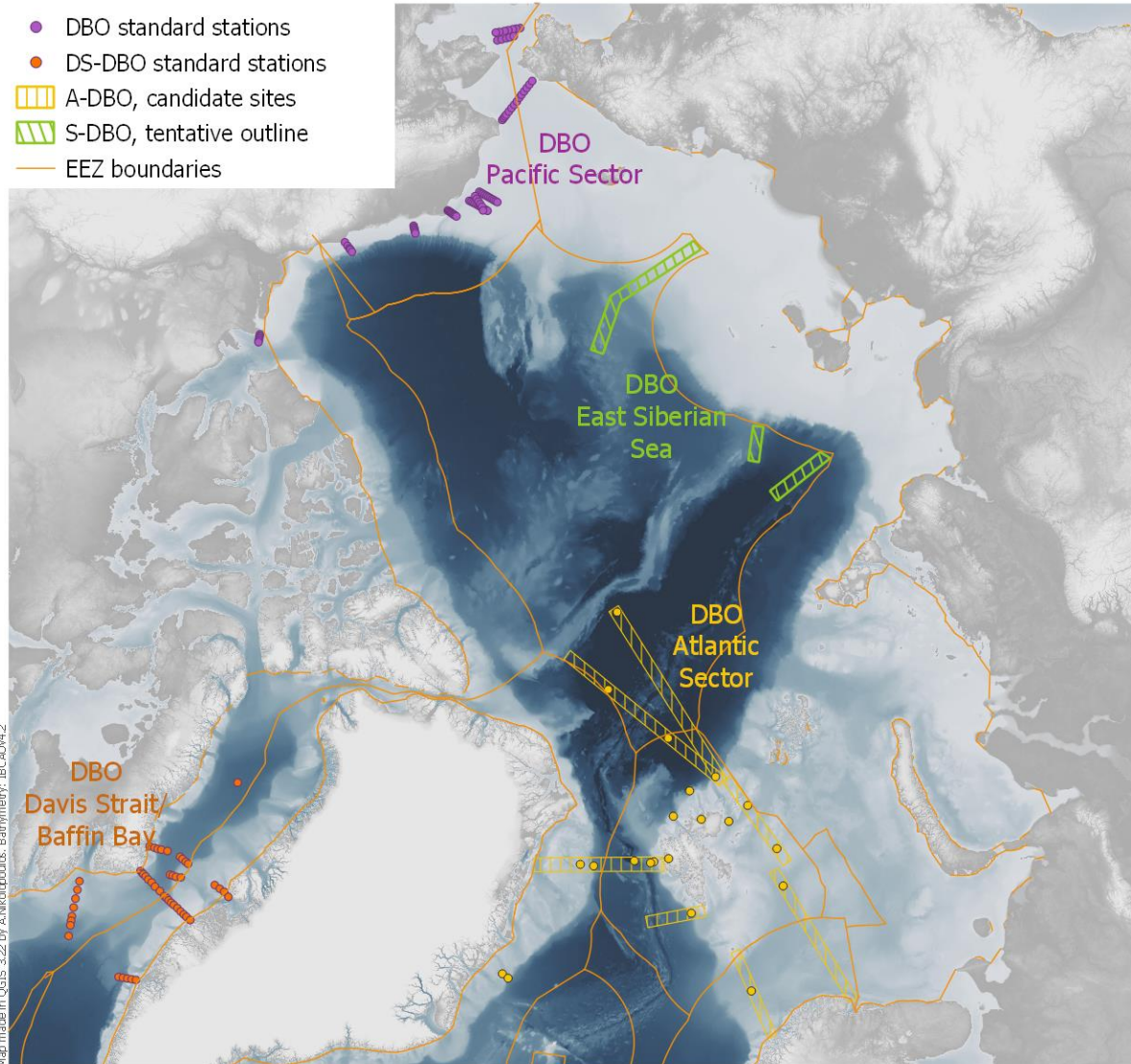


[Karen Frey, Clark University]

The Pacific Distributed Biological Observatory:

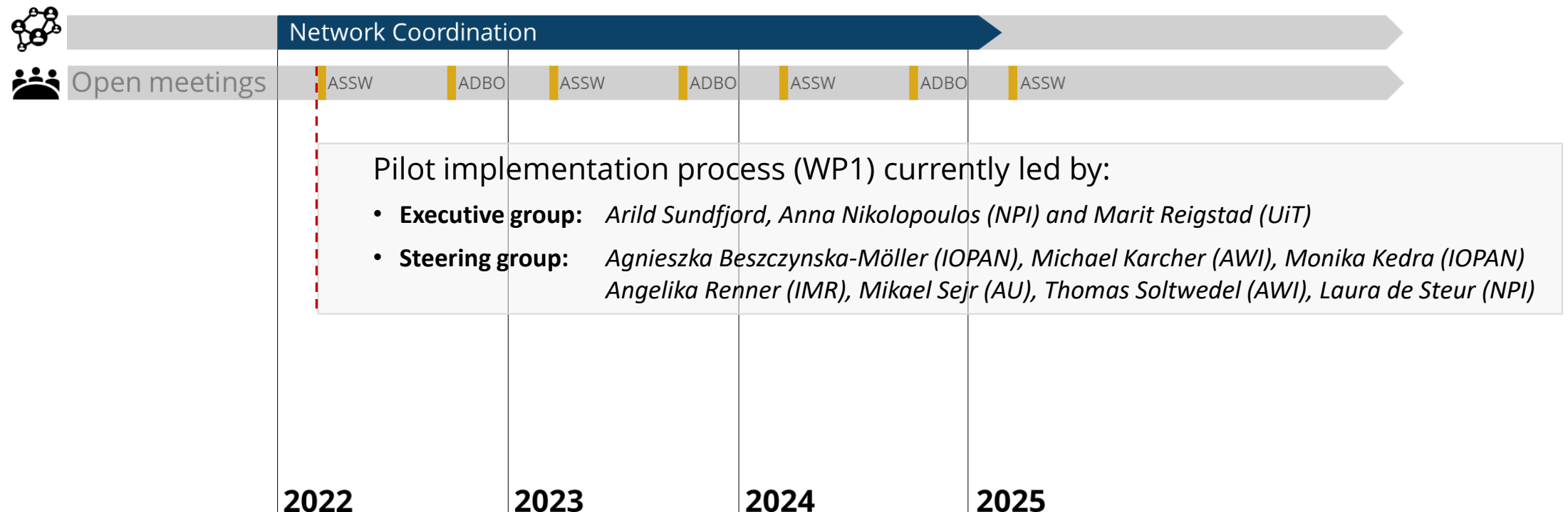
- An organizing framework for consistent, ship-based biophysical sampling in the Pacific Arctic region
- Dedicated stations along eight transect lines
- Sampling regions centered on locations of high productivity, high biodiversity and high rates of biological change: “A change-detection array”
- Endorsed by the Pacific Arctic Group (PAG) in 2010

A-DBO establishment process



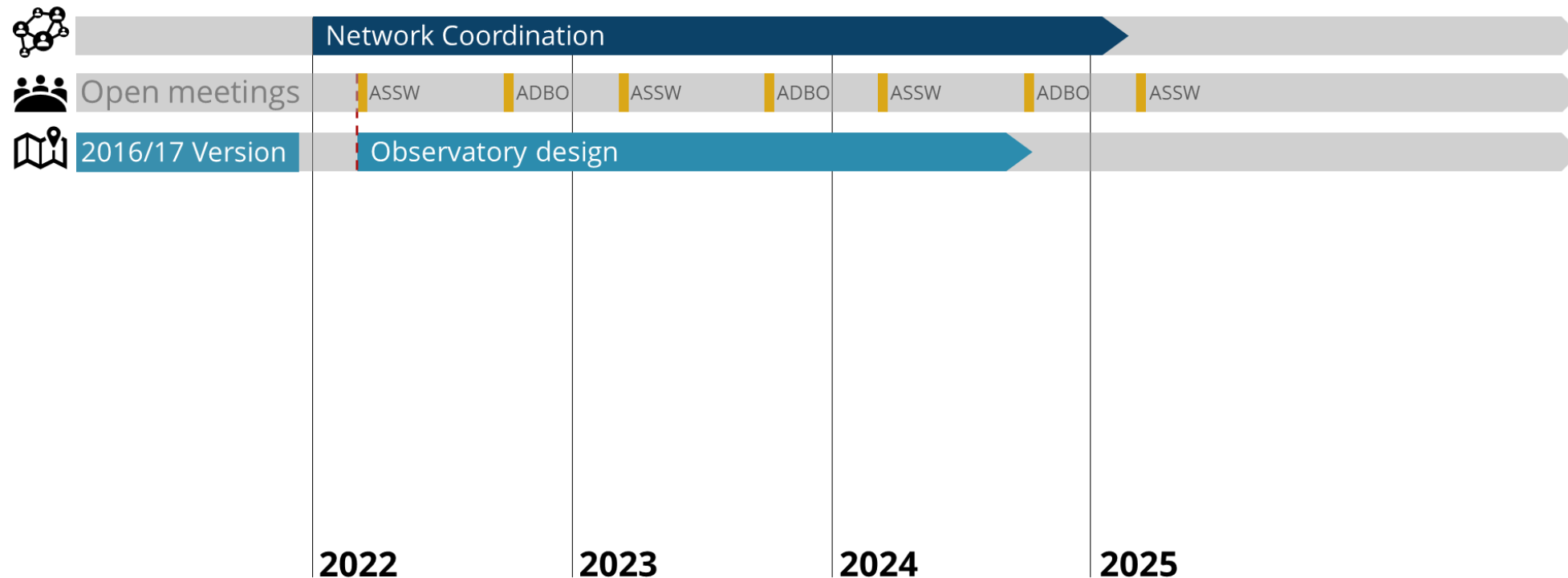
A-DBO establishment process

Coordination capabilities secured by the EU Horizon project Arctic PASSION for 2022-2025



A-DBO establishment process

Update the geographical aspects based on earlier work, and planned future activity

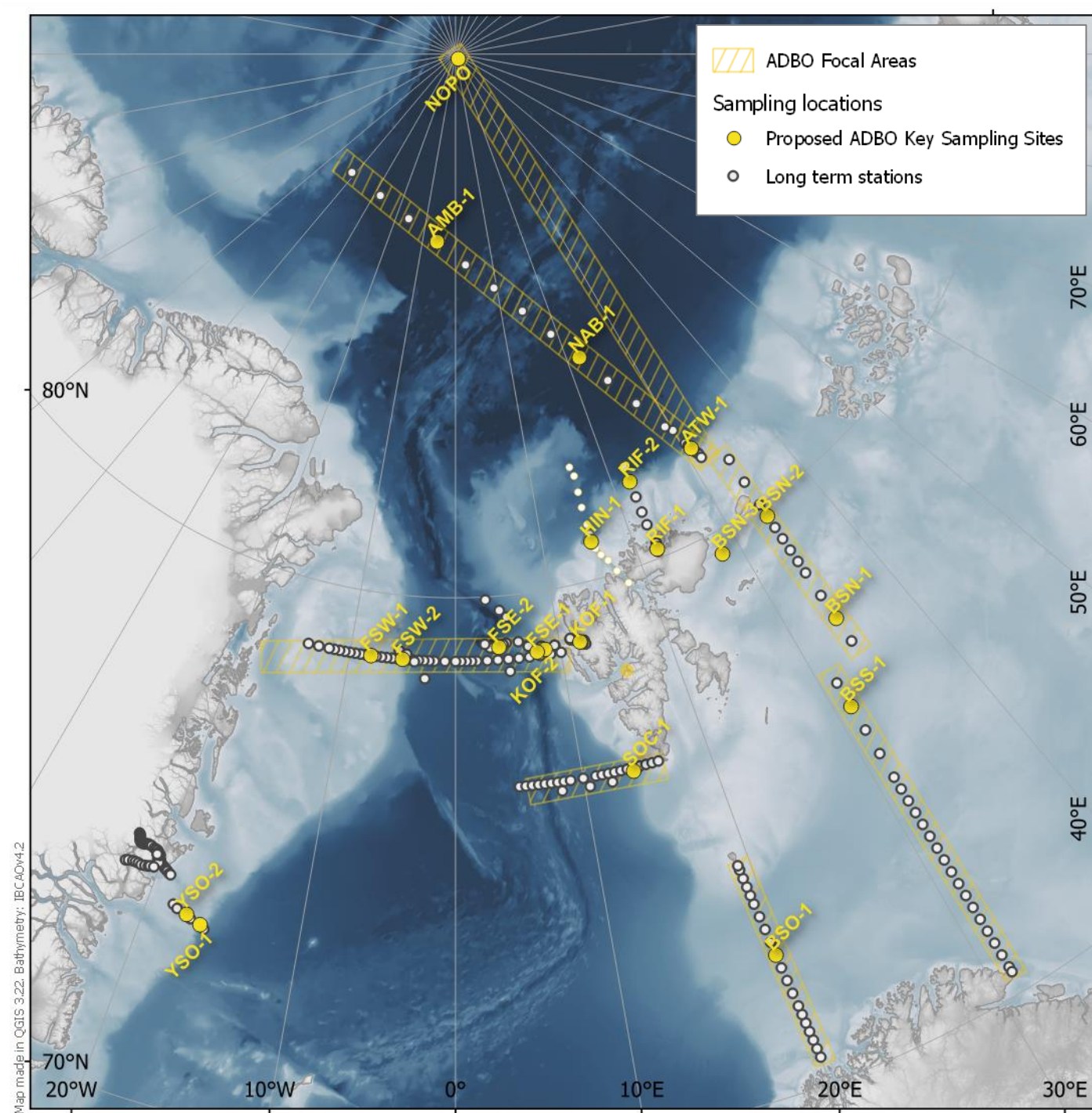


A-DBO key sites

Proposed geographical elements of the Atlantic-Arctic Distributed Observatory:

Focal Areas and Key sampling sites

- Better balance between disciplines
 - Key locations for collaborative sampling
- Coordination of efforts
 - Joint and open planning, better use and sharing of infrastructure
- Harmonization of routines
 - Quick sharing of metadata, common routines for data processing, sharing and handling
- Recurrent joint assessments
 - Strengthened links between long-term mandates and short-term efforts

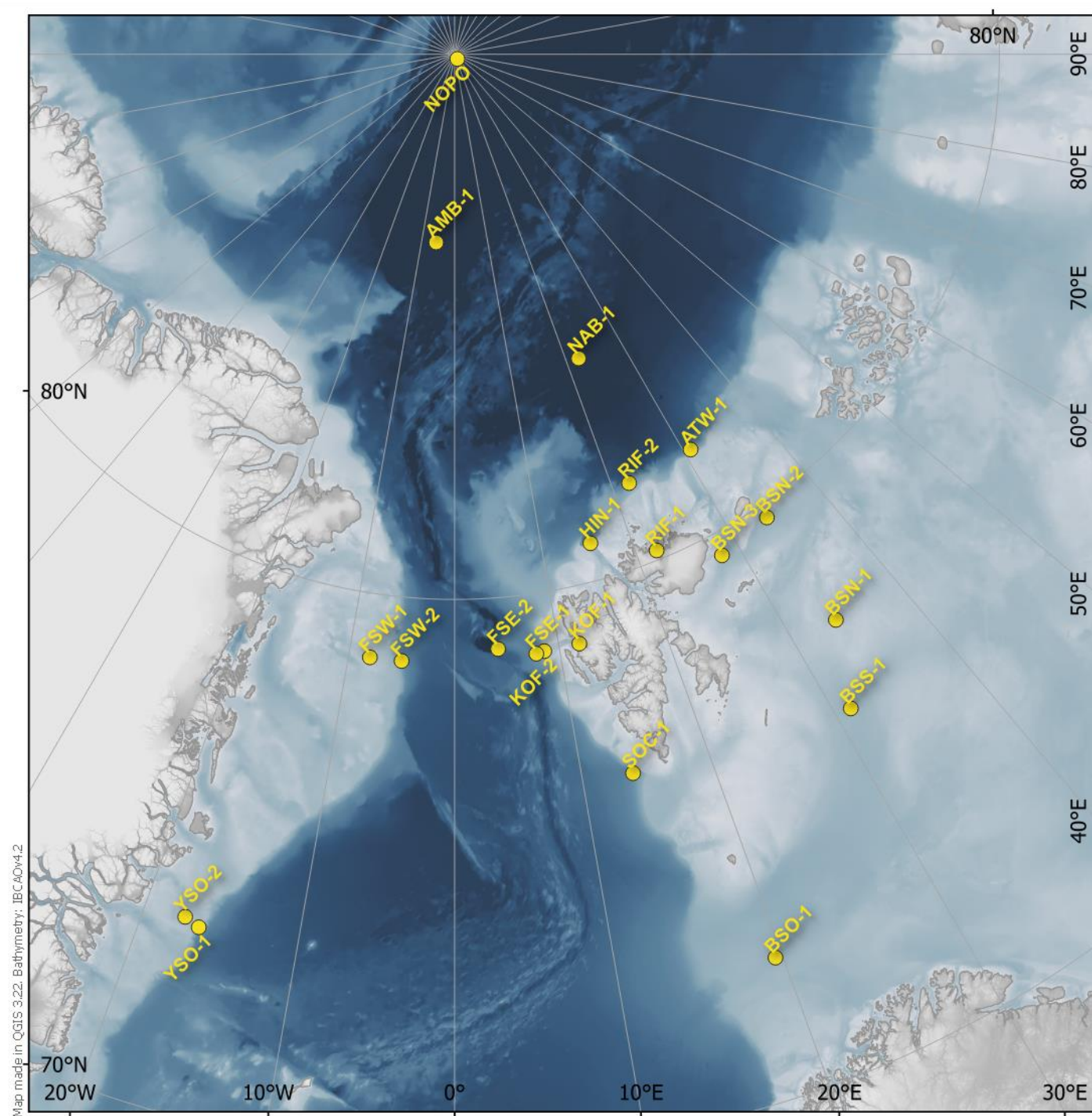


A-DBO key sites

Proposed geographical elements of the Atlantic-Arctic Distributed Observatory:

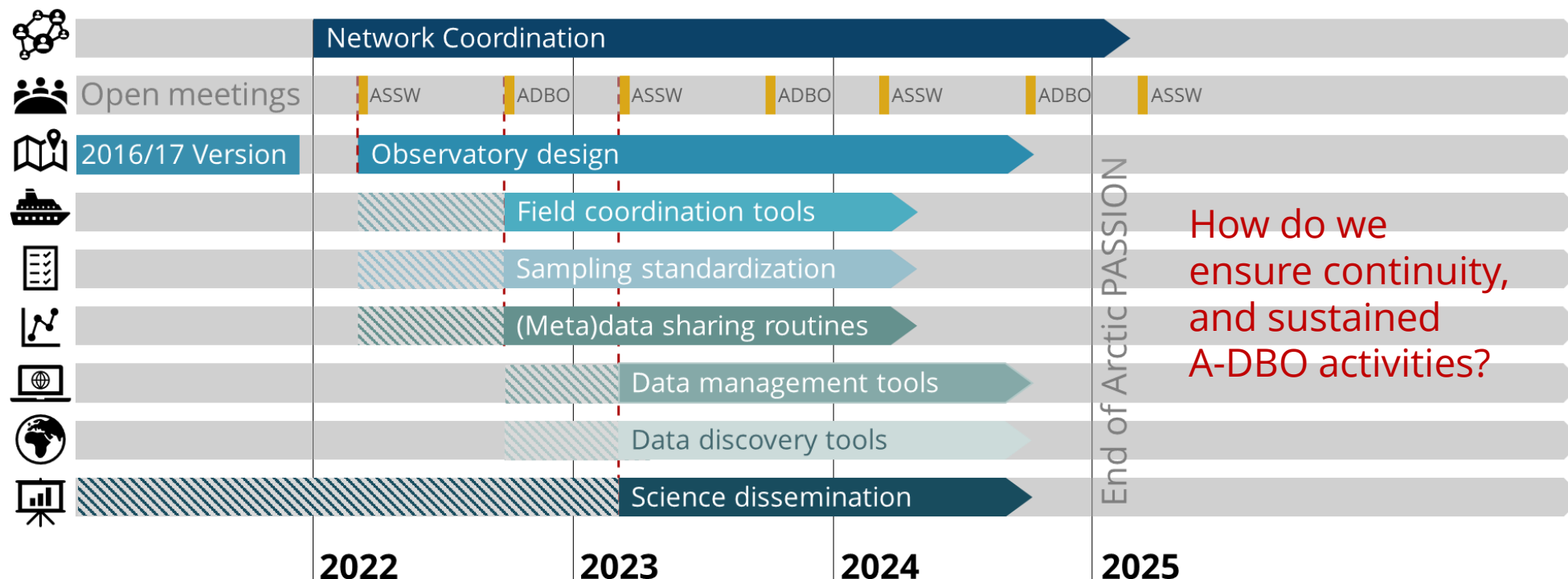
Focal Areas and Key sampling sites

- Better balance between disciplines
 - *Key locations for collaborative sampling*
- Coordination of efforts
 - *Joint and open planning, better use and sharing of infrastructure*
- Harmonization of routines
 - *Quick sharing of metadata, common routines for data processing, sharing and handling*
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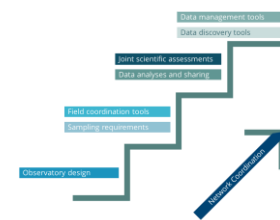
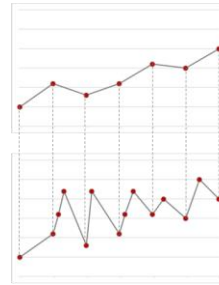
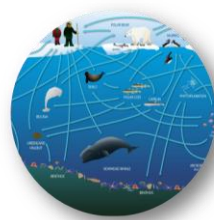
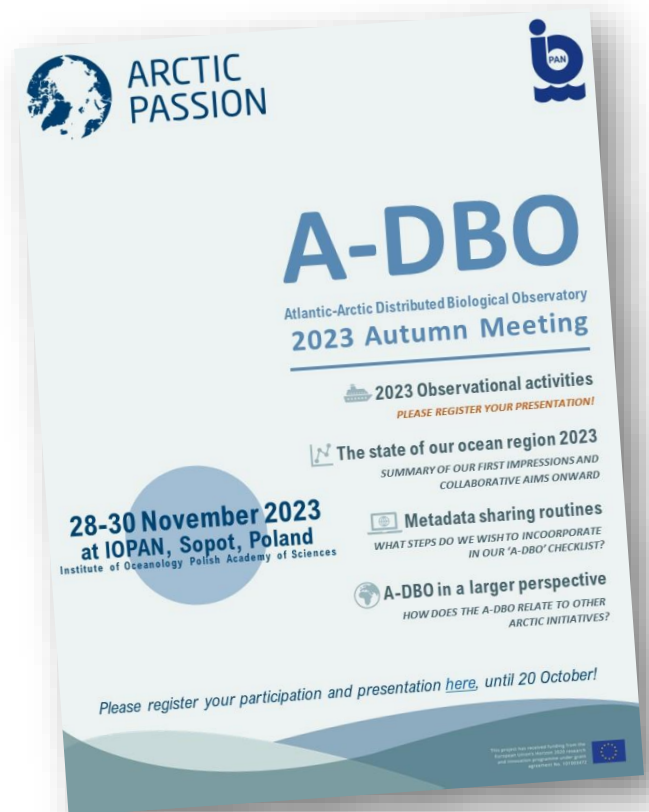
A-DBO establishment process

Agree on the remaining DBO components as well. Make use of existing practices and tools!



How do we ensure continuity, and sustained A-DBO activities?

Upcoming events: Autumn meeting

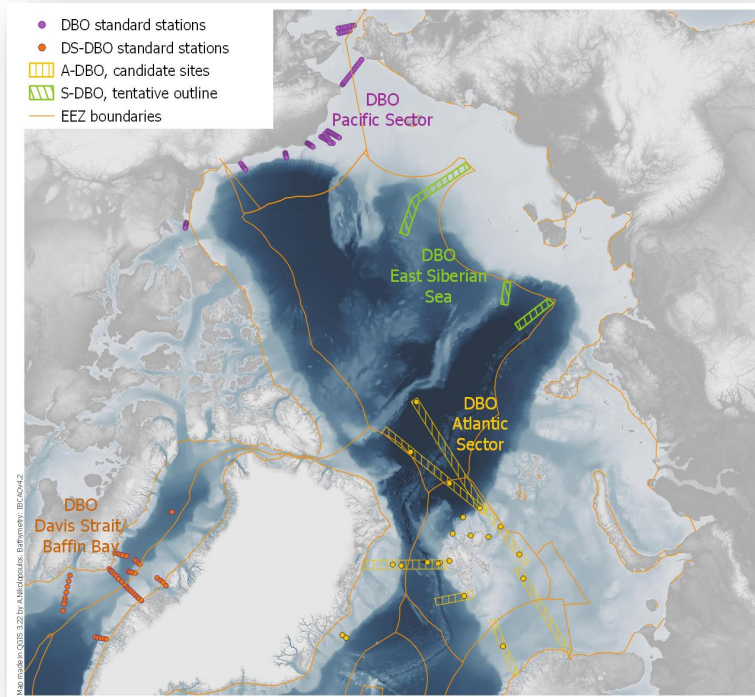


- Reports from the 2023 field season (**register talks until 20 Oct!**)
- Exchange of information about 2024/25 plans
- Workshop on the first impressions of the 2023 conditions
- Discussions, and decisions, about our metadata practices
- Orientation on parallel pan-Arctic system efforts

Presentations: hybrid, workshops: in-person

More information and link to registration: arcticpassion.eu/adbo/

Upcoming events: ASSW 2024



Pan-Arctic DBO Community meeting:

Date TBD, follow the updates on

→ assw.info/program/business-and-community-meetings

ARCTIC SCIENCE
SUMMIT WEEK

21 - 29 March 2024
Edinburgh, Scotland, UK

#ASSW2024



Thank you for your attention!

arcticpassion.eu/adbo/