POLARIN

POLAR
RESEARCH
INFRASTRUCTURE
NETWORK

POLAR RESEARCH INFRASTRUCTURE NETWORK

Verónica Willmott Puig

www.eu-polarin.eu

FUNDED BY THE
EUROPEAN UNION

POLARIN: POLAr Research Infrastructure Network

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Funded under:

HORIZON-INFRA-2023-SERV-01-01: Research infrastructure services to enable R&I addressing main challenges and EU priorities

Topic: For RI services for sustainable Arctic/polar regions

Coordinator: AWI

50 partners
Budget: M14,6€

March 2024 – February 2029

Overall aim

To provide **efficient and customised RI services** to address the scientific challenges of the polar regions, including **access to a wide portfolio of complementary and interdisciplinary top level RIs.**

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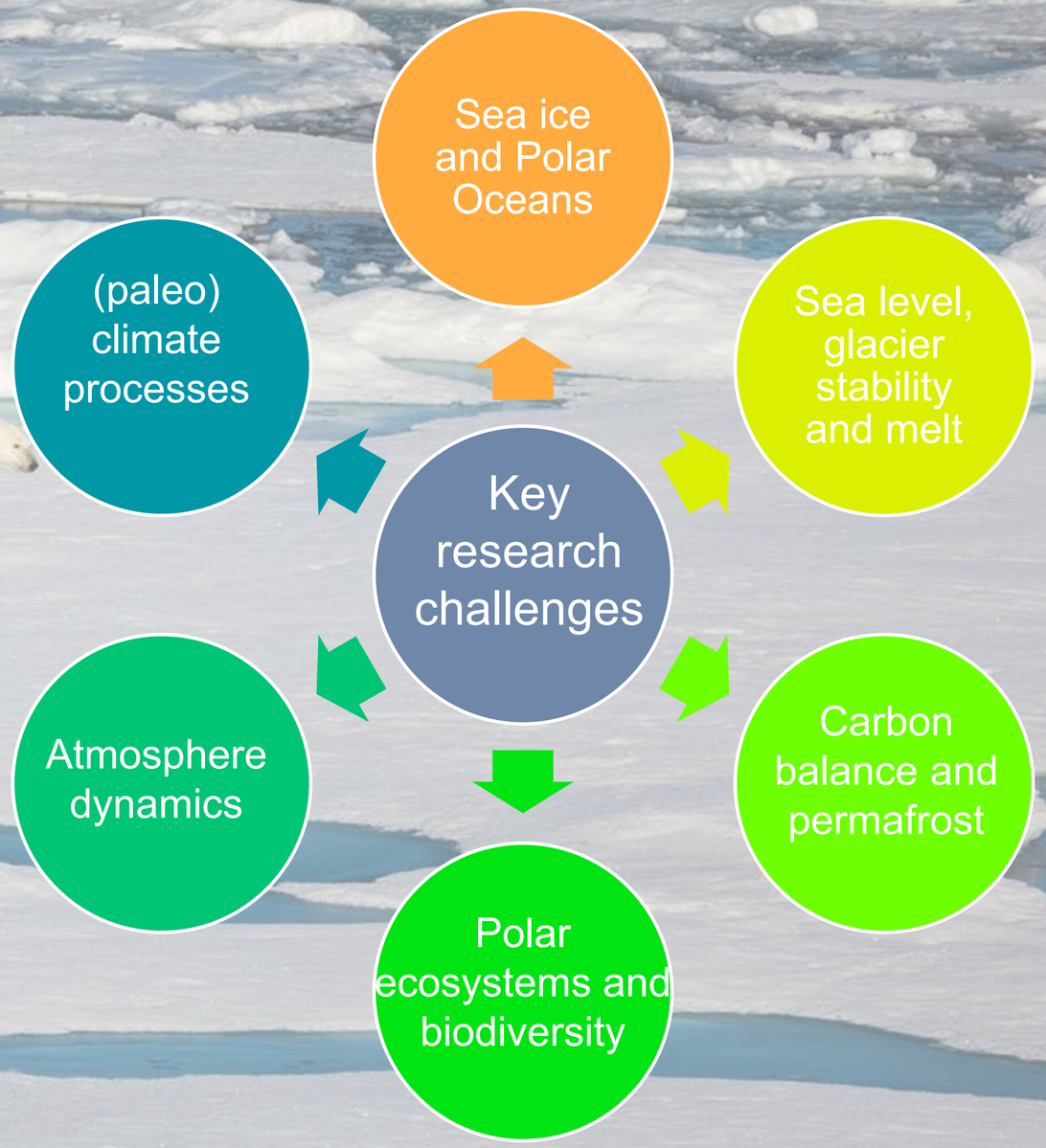

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Polarin will:

Integrate and combine the access to Arctic and Antarctic RI

Improve online services, data access and interoperability

Ensure that the new generations are trained to exploit the leading edge RIs

POLARIN Consortium

Overall structure of the work plan

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POLAR RI SERVICES

Transnational Access to RIs	Data access, products and services	Virtual Access to RIs	Training
TA1/WP1: Enabling science for understanding and predicting key processes in polar regions	**WP4.** Improvement of data services and customised data products	**VA1/WP5:** Provision of Virtual Access	**WP7.** Training for infrastructure users
TA2/WP2: Proposal management service		**VA2/WP6:** RIs offered for Virtual Access	
TA3/WP3: RIs offered for Transnational Access			

WP8. Outreach, engagement and impact

WP9. Project management

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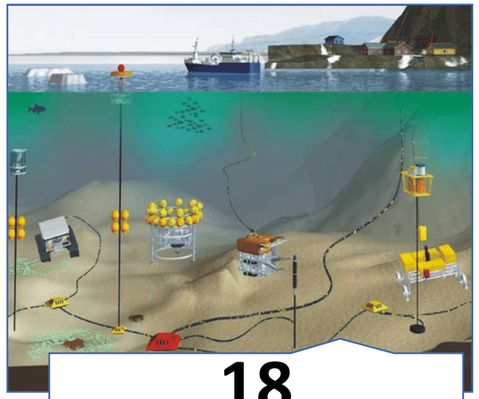
Access integration to **64** research infrastructures in **both poles**

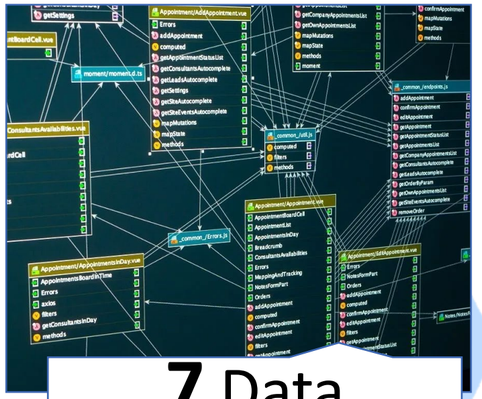
38
Research stations

12
Polar vessels



18
Observatories

4 Ice and sediment core repositories



7 Data infrastructures

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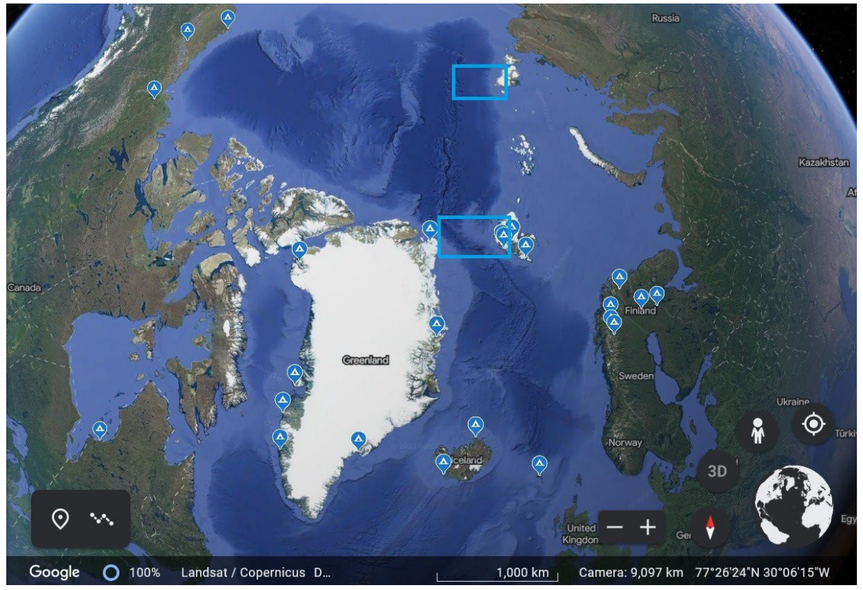
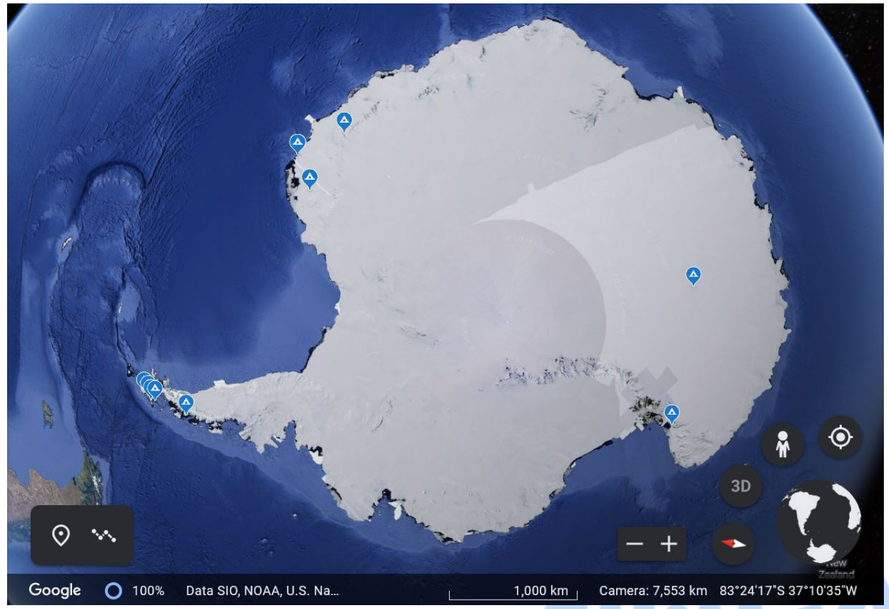
38
Research stations



27 Arctic stations



11 Antarctic stations

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12
Polar vessels

CCGS Amundsen, CA

Arni Fridriksson, IS

RV Celtic Explorer, IR

MV Le Commandant Charcot, FR

RV Dana, DK

RV Kronprins Haakon, NO

BIO Hespérides, ES

RS Karpuj, CL

RVIB Laura Bassi, IT

Noosfera, UA

PRV Polarstern, DE

TARA polar station, FR

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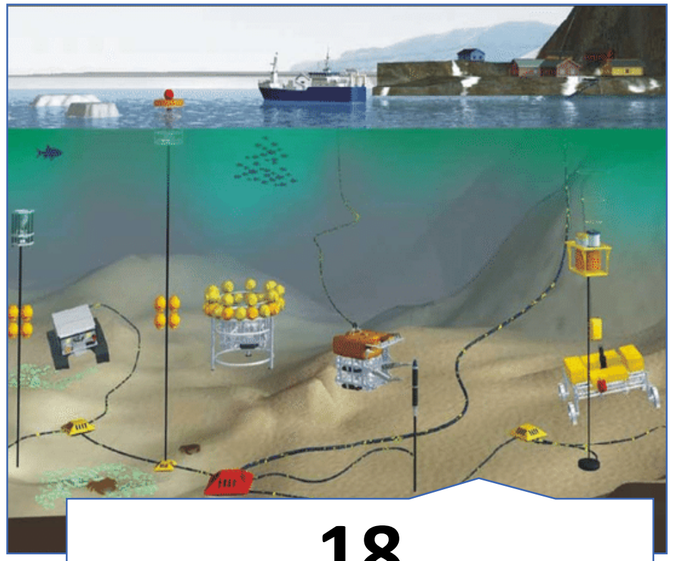

18

Observatories

- 1 deep-sea observatory (**FRAM**)
- 2 observational networks (**GIOS** and Greenland Ecosystem Monitoring)
- 15 key observatories associated to research stations

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4 Ice and sediment core repositories

AWI: Ice core repository
AWI: Sediment core repository
BAS: Polar Sediment Core Facility
UiT: Core repository and geological laboratories

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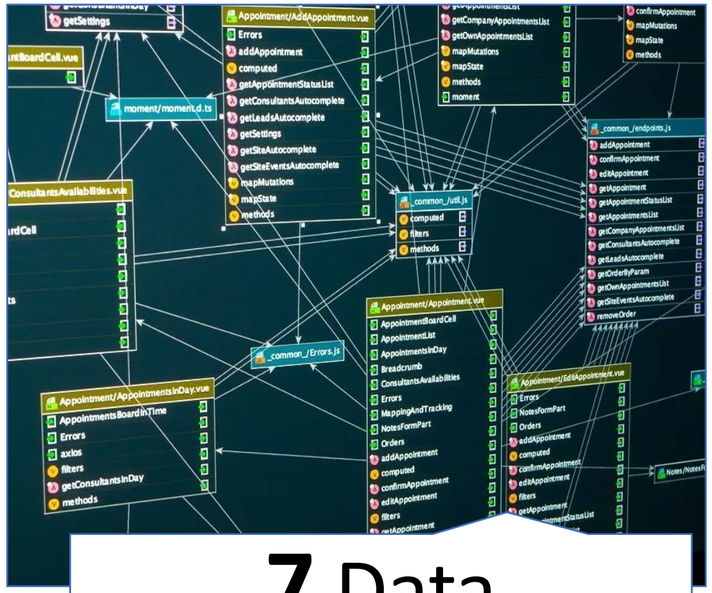

7 Data infrastructures

- Arctic Biodiversity Data Service (**CAFF**)
- ARICE Data infrastructure
- Italian Arctic Data Center (**CNR**)
- **INTERACT** data portal
- Italian National Antarctic Data Center (**CNR**)
- **POSEDA** (GFZ)
- **SIOS** Data Management System

TYPES OF ACCESS TO RI

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Transnational Access

Transnational Access

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- Proposal based, Challenge driven
- Access to RIs from other countries
- International cooperation
- Externally evaluated
- If granted, access to RI and travel expenses are covered by the project

Virtual Access

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Open access to (new) data, databases and data services

Objectives

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- Enable science for understanding and predicting key processes in polar regions
- Provide efficient challenge-driven transnational access (TA) to top level RIs in the polar regions
- Improve data services and provide customised data products
- Provide virtual access (VA) to data and data services
- Provide training for infrastructure users
- Advertise RI services and engage RI users

Data services and data products

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POLARIN will concentrate its efforts on improving the data landscape and the consumption of data

- A single-entry portal
- VA to metadata, data and data services
- Coordinate, harmonise, and optimise the implementation and integration of data services and products.
- Create data products from environmental databases that can be directly used by researchers and decision makers.

Training for infrastructure users

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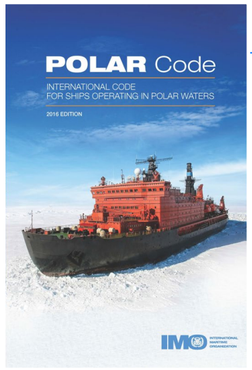
Training for early career scientists and professionals

Training on data stewardship



Safety training

POLARIN ADVISORY BOARD

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Jennifer Mercer
NSF

Former Chair of the Forum of Arctic Research Operators (FARO)

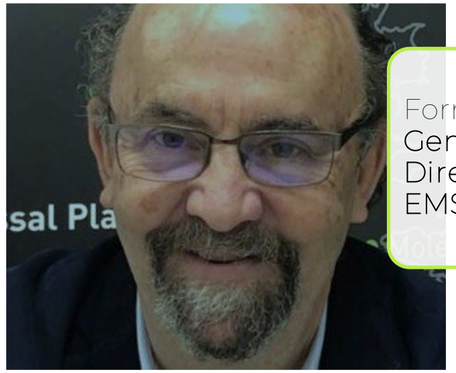
Juliet Hermes
SAPRI

Manager of the South African Antarctic Programme (SAPRI)

Nicolás Villacorta
Helmholtz

Policy Officer for European Research Infrastructures at the Helmholtz Association

Juan José Danobeitia
CSIC



Former General Director of EMSO

Diego Fernández
ESA

Head of the Research and Development Section at the European Space Agency.

Connection with other projects, forums, organisations

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AQUARIUS

EU Polar Cluster

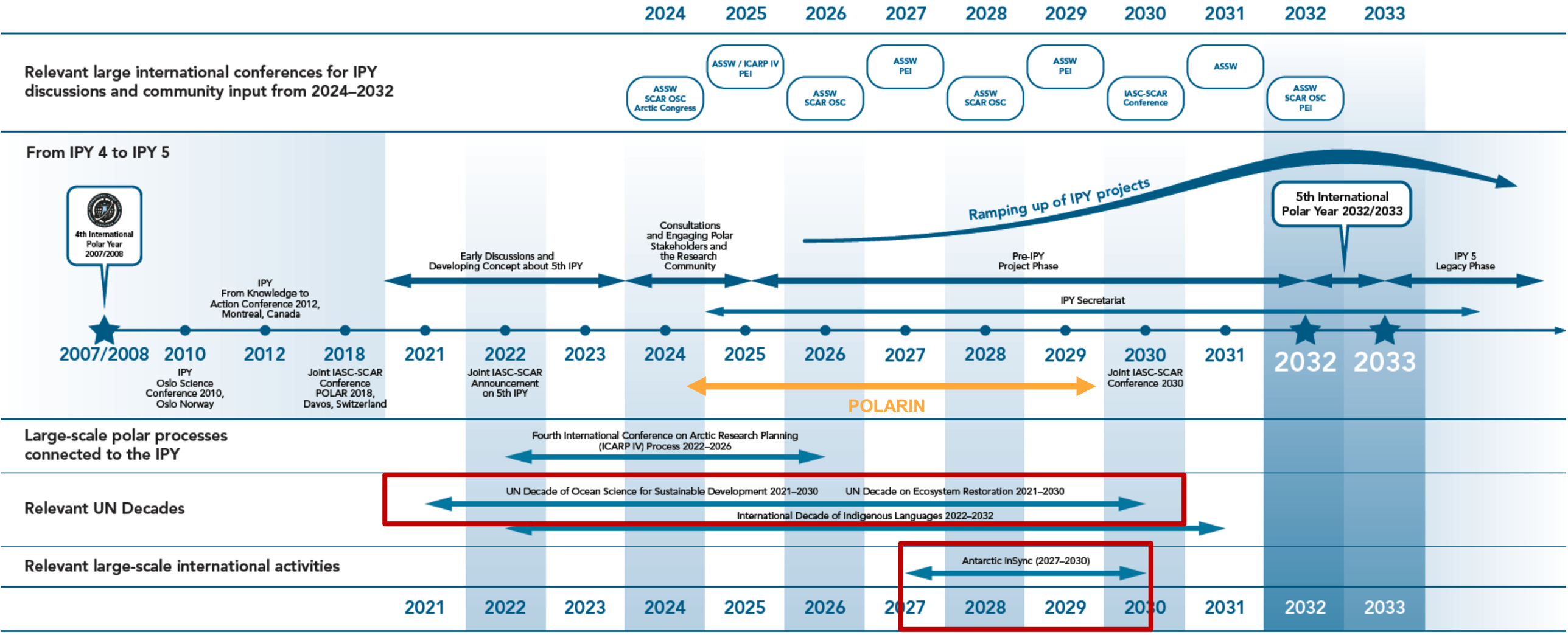
FORUM OF ARCTIC RESEARCH OPERATORS
faro-arctic.org • faro-arctic@bios.au.dk
FARO

COMNAP
Council of Managers of National Antarctic Programs

esa

Copernicus
Europe's eyes on Earth

Long-term perspective
Towards the 5th International Polar Year (IPY) 2032-33



What is Antarctica InSync?

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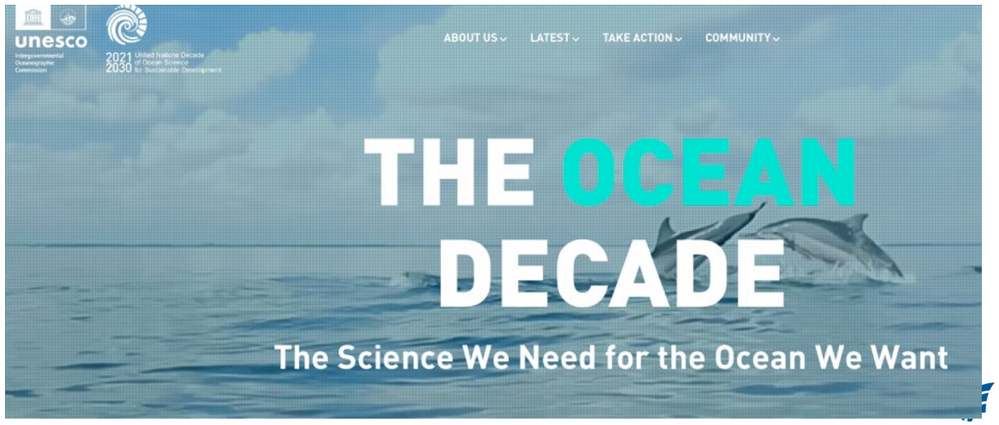
HELMHOLTZ-ZENTRUM FÜR POLAR- UND MEERESFORSCHUNG

A policy and research driven international initiative endorsed as a UN Ocean Decade Action with focus on Antarctica and the Southern Ocean.

A synchronous scientific observation mission to allow for a circumpolar assessment of the connections between ice, ocean, climate, environment and life, including human pressures, and their solutions such as marine protection.

Closely coordinated with SCAR in its role as host of the Decade Collaborative Centre (DCC) for the Southern Ocean Region.

SCAR Scientific Committee on Antarctic Research



HELMHOLTZ ASSOCIATION

How will it work?

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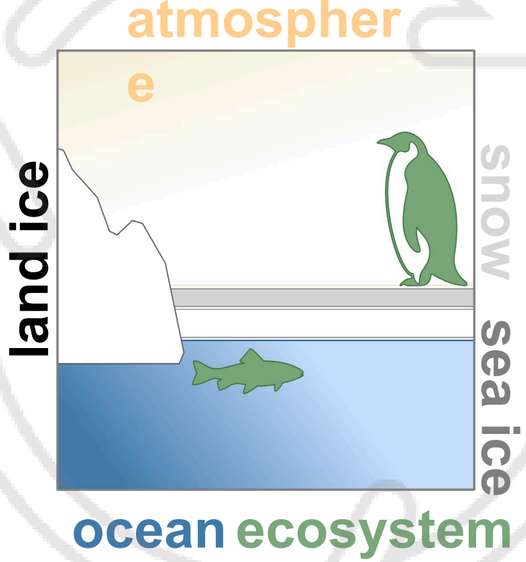
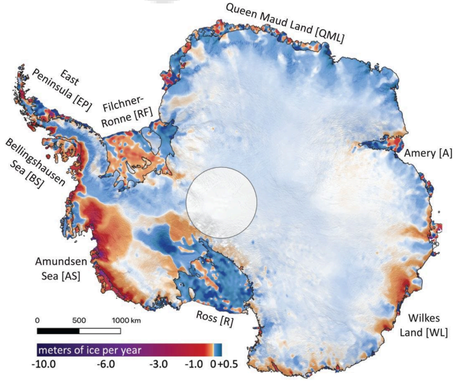
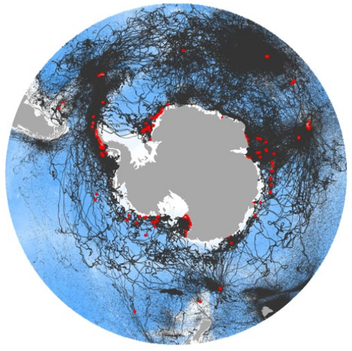


RESEARCH INFRASTRUCTURES IN ANTARCTICA AND THE SOUTHERN OCEAN

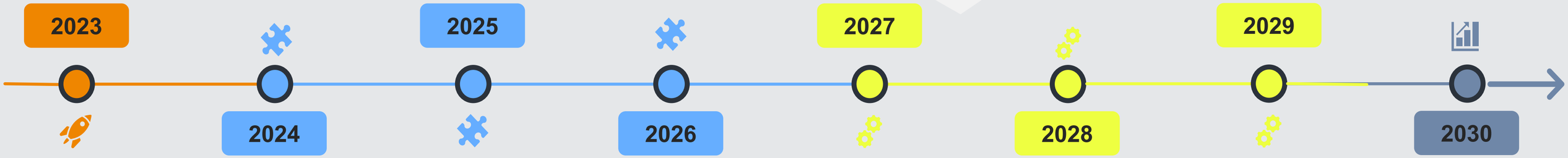




Anticipated time-line for Antarctica InSync

Communication and workshops

Implementation Phase / Fieldwork



Planning and Preparatory Phase

- Workshops to align scientific and infrastructure processes for synchronous multidisciplinary observation, establish alliances and a framework of collaboration between working groups, stakeholders and logistic teams;
- Preparation and approval of an Antarctica InSync Science Plan, data plan and synchronous experiments.

Completion and reporting

How will it work?

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Antarctica InSync is open to everyone willing to contribute

ASSOCIATION OF RESPONSIBLE KRILL HARVESTING COMPANIES

Māori and Antarctica

CIVIL SOCIETY

HELMHOLTZ | ASSOCIATION

Contact Us

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