



# POLARIN

POLAR  
RESEARCH  
INFRASTRUCTURE  
NETWORK

# POLAR RESEARCH INFRASTRUCTURE NETWORK

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[www.eu-polarin.eu](http://www.eu-polarin.eu)



FUNDED BY THE  
EUROPEAN UNION

# POLARIN: POLAR Research Infrastructure Network



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: 

52 partners

Budget: M14,6€

March 2024 – February 2029



# Background





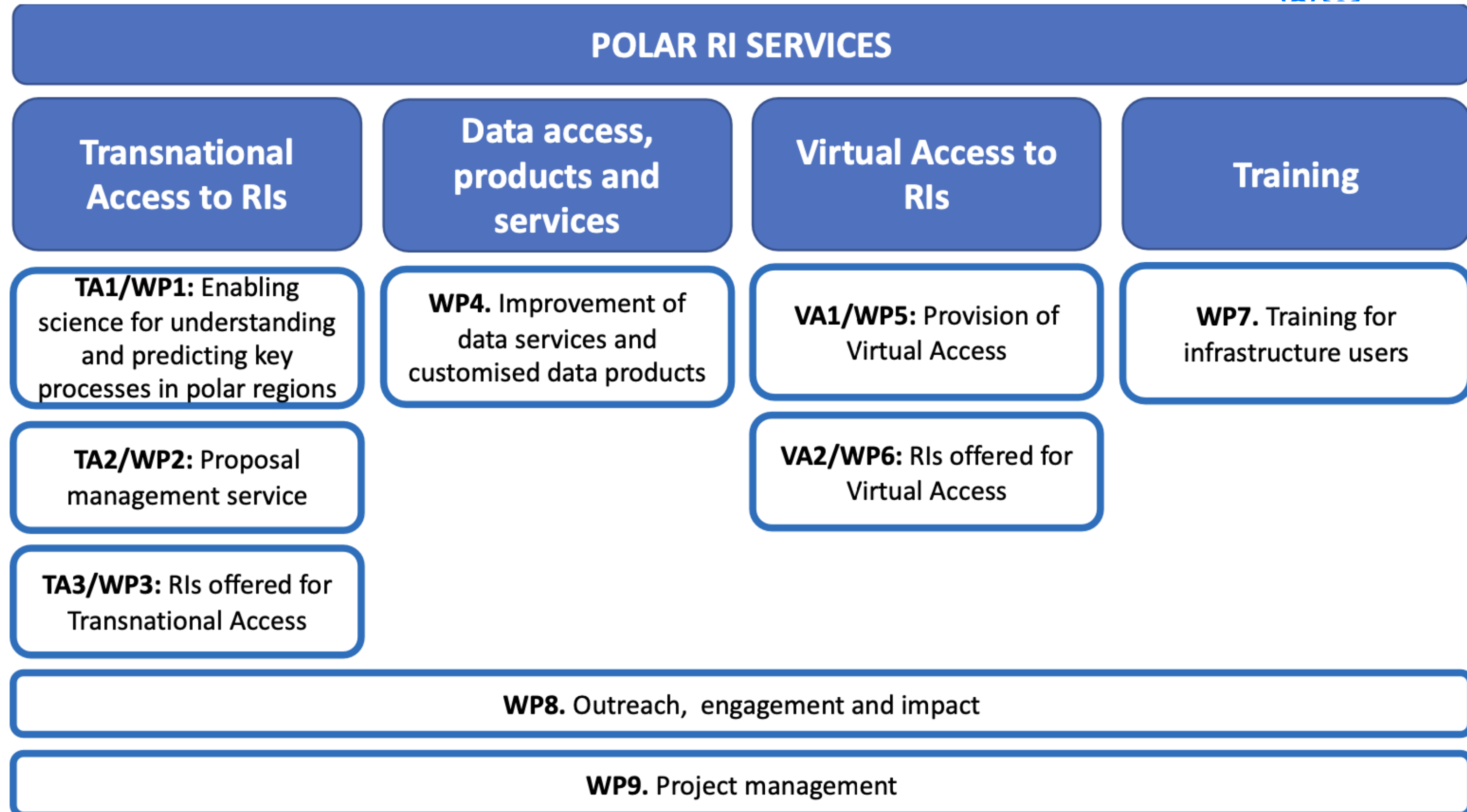
# Overall aim

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.





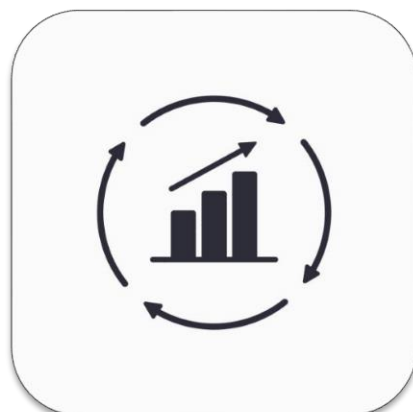
# Overall structure of the work plan



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



AMI

UNIVERSITY OF OULU

INTER=ACT

LUND UNIVERSITY

Consiglio Nazionale delle Ricerche

OGS

AARHUS UNIVERSITY

cnrs

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE

inkode

UNIVERSITY OF COPENHAGEN

EUROPEAN POLAR BOARD

ETT

UiT Norges arktiske universitet

APECS

Association of Polar Early Career Scientists

SIOS

NILU

Norsk institutt for luftforskning

Norwegian Institute for Air Research

STATE INSTITUTION NATIONAL ANTARCTIC SCIENTIFIC CENTER

Ministry of Education and Science of Ukraine

IGOT

Instituto de Geografia e Ordenamento do Território

UNIVERSIDADE DE LISBOA

POLAR OPERATION

Ministerio de Relaciones Exteriores

Gobierno de Chile

GFZ

Helmholtz Centre POTSDAM

DTU

INSTITUT POLAIRE FRANÇAIS

PAUL-ÉMILE VICTOR

PONANT

MARINE & FRESHWATER RESEARCH INSTITUTE

Greenland Institute of Natural Resources

GOBIERNO DE ESPAÑA

MINISTERIO DE CIENCIA E INNOVACIÓN

POLARFORSKNINGS SEKRETARIATET

SWEDISH POLAR RESEARCH SECRETARIAT

Danmarks Meteorologiske Institut

UNIVERSITÉ LAVAL

UNIVERSITY OF TURKU

NORSK-POLARINSTITUTT

UNI GRAZ

TÍÓÐSAVNIÐ

CSIC

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

RIF Field Station

Stockholm University

UAM

AURORA COLLEGE

AURORA RESEARCH INSTITUTE

Instytut Geofizyki Polskiej Akademii Nauk

UNIWERSYTET MIKOŁAJA KOPERNIKA W TORUNIU

UNIVERSITY of ALASKA

Many Traditions One Alaska

Foras na Mara Marine Institute

UK Research and Innovation

UNIVERSITY OF HELSINKI

FINNISH METEOROLOGICAL INSTITUTE

BULGARIAN ANTARCTIC INSTITUTE

UIC SCIENCE

CAFF

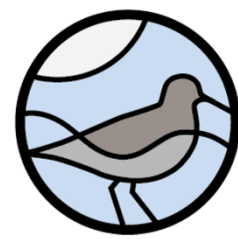
Conservation of Arctic Flora and Fauna

Fondation tara océan

explorer et partager

ACTRiS

Exploring the Atmosphere



# RIF

## Field Station



Stockholm  
University



**Instytut Geofizyki  
Polskiej Akademii Nauk**



**UNIwersytet  
MIKOŁAJA KOPERNIKA  
W TORUNIU**



UNIVERSITY  
of ALASKA  
*Many Traditions One Alaska*



*Foras na Mara*  
*Marine Institute*





# POLARIN RESEARCH INFRASTRUCTURE



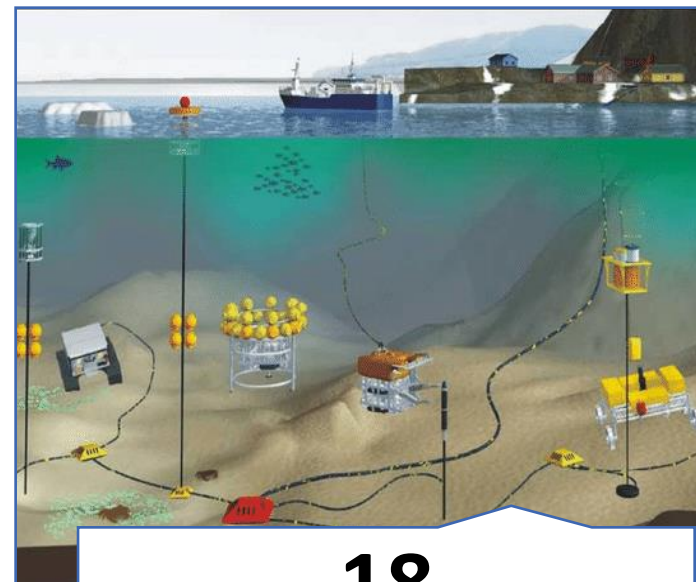
Access integration to **64** research infrastructures in **both poles**



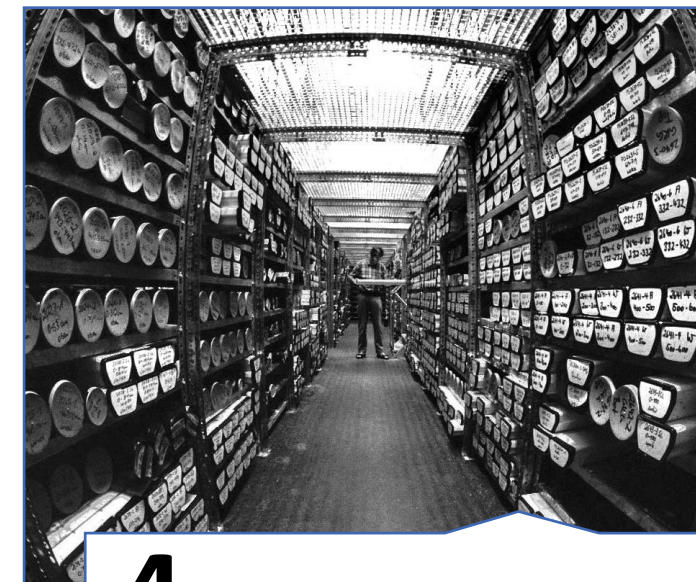
**38**  
Research stations



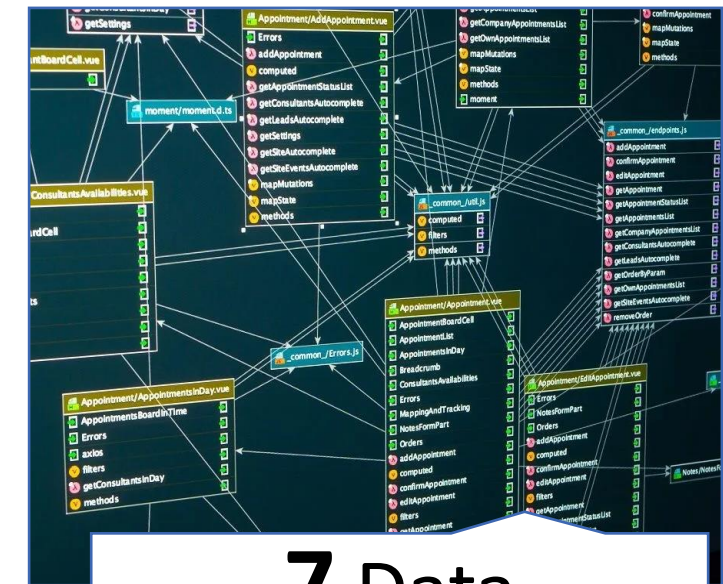
**12**  
Polar vessels



**18**  
Observatories



**4** Ice and sediment  
core repositories



**7** Data  
infrastructures

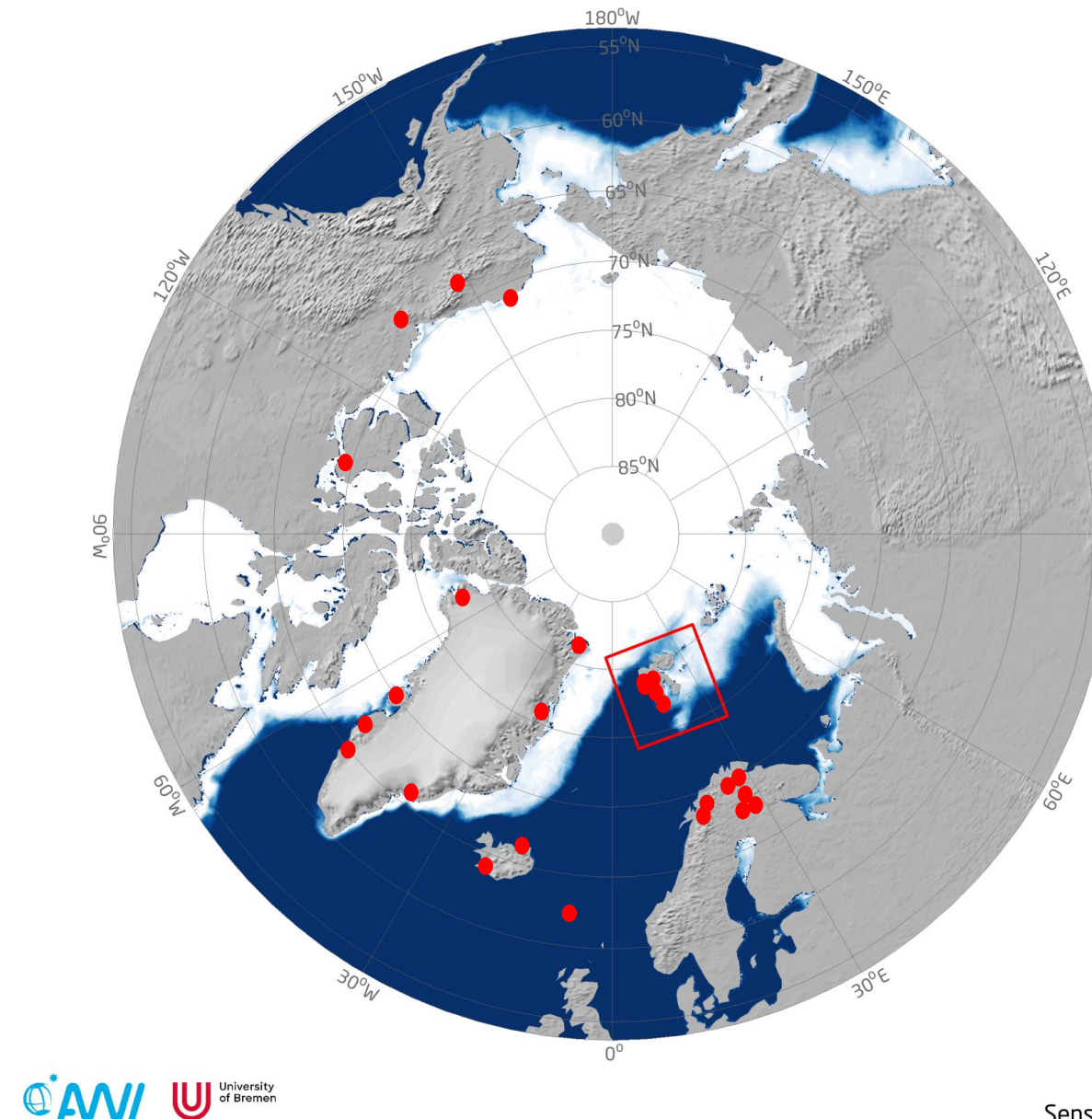


# POLARIN INFRASTRUC

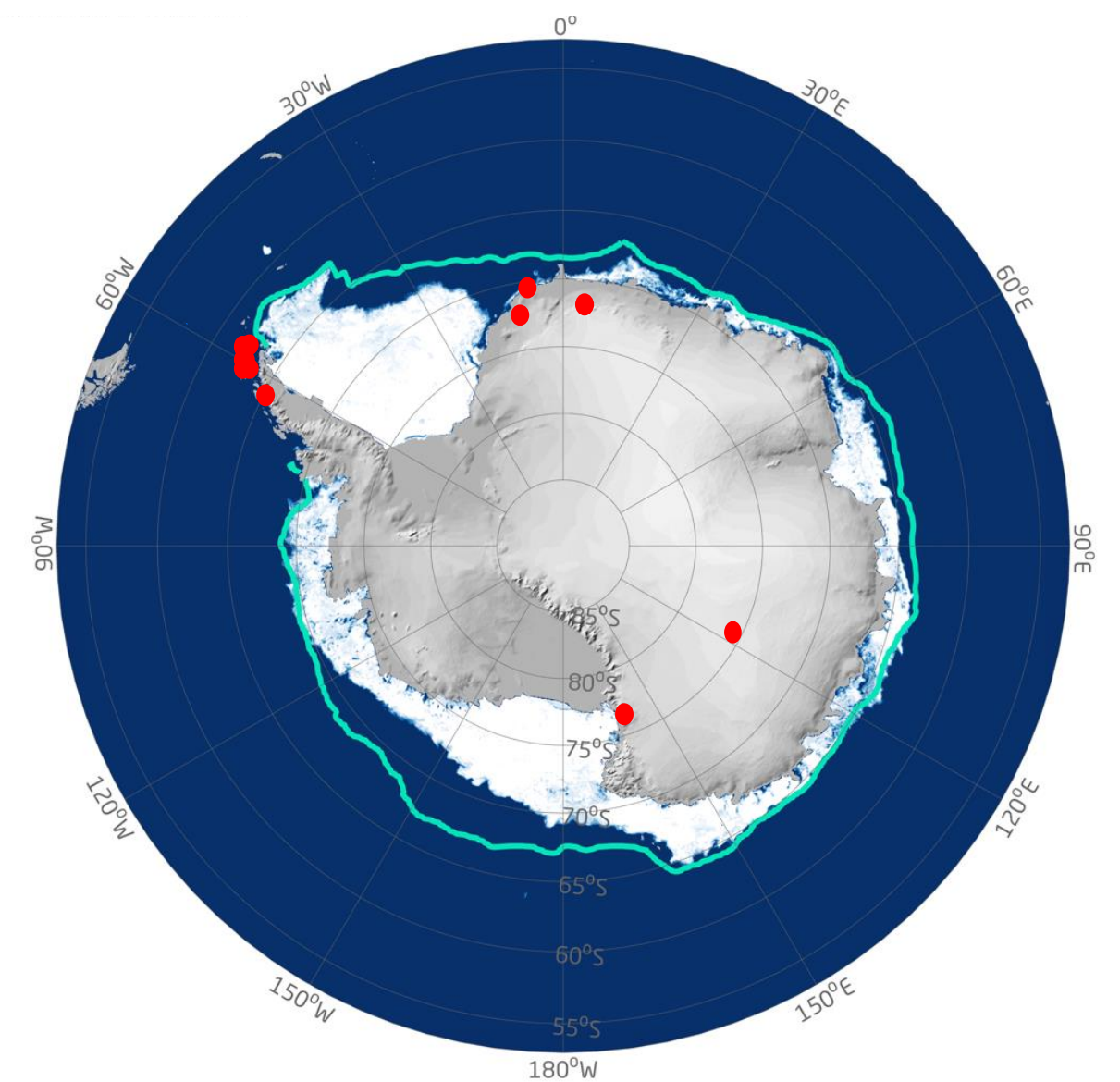


**38**

**Research stations**



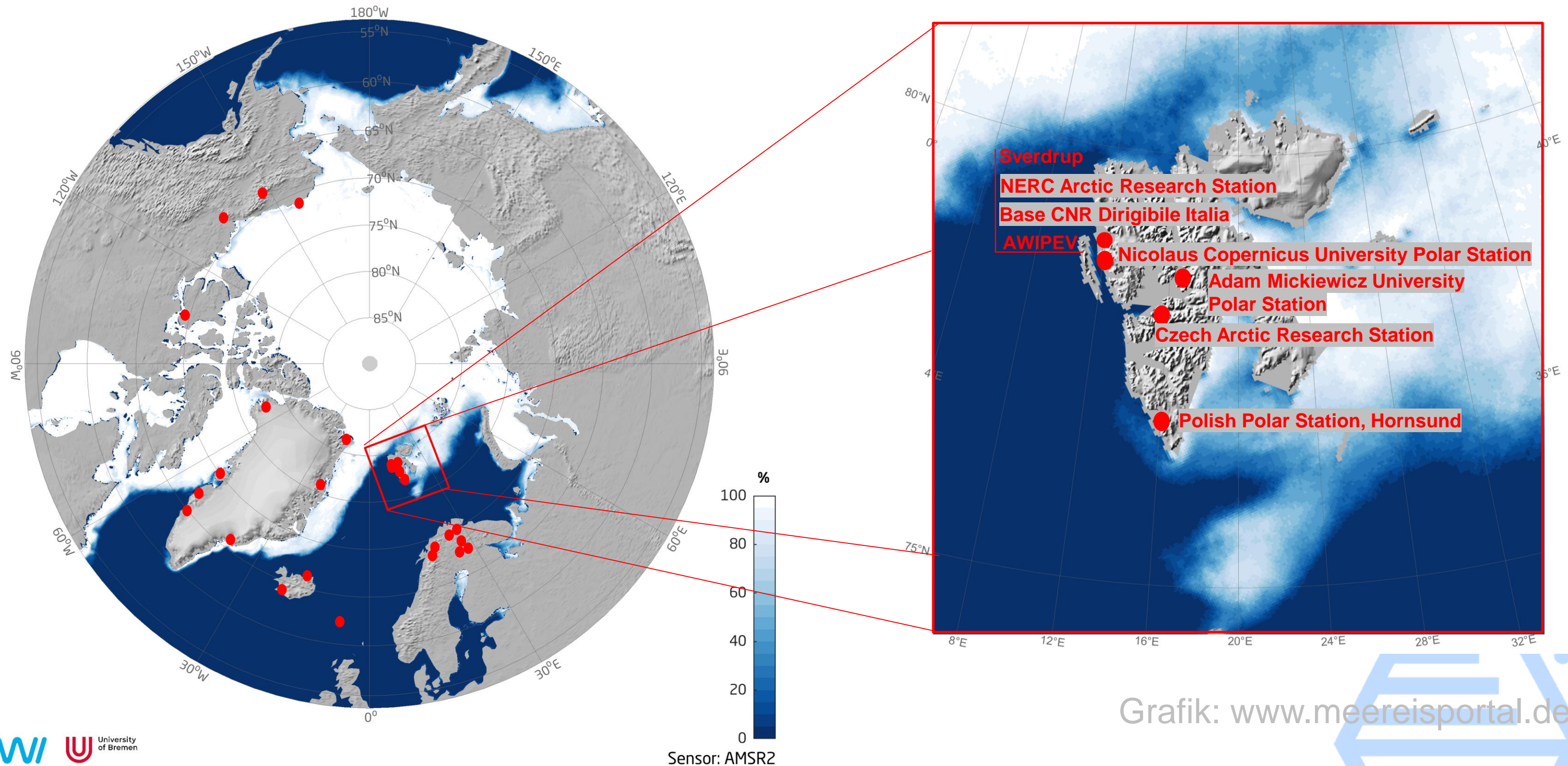
**27 Arctic stations**



**11 Antarctic stations**



# POLARIN Stations in the Arctic



Grafik: [www.meereisportal.de](http://www.meereisportal.de)

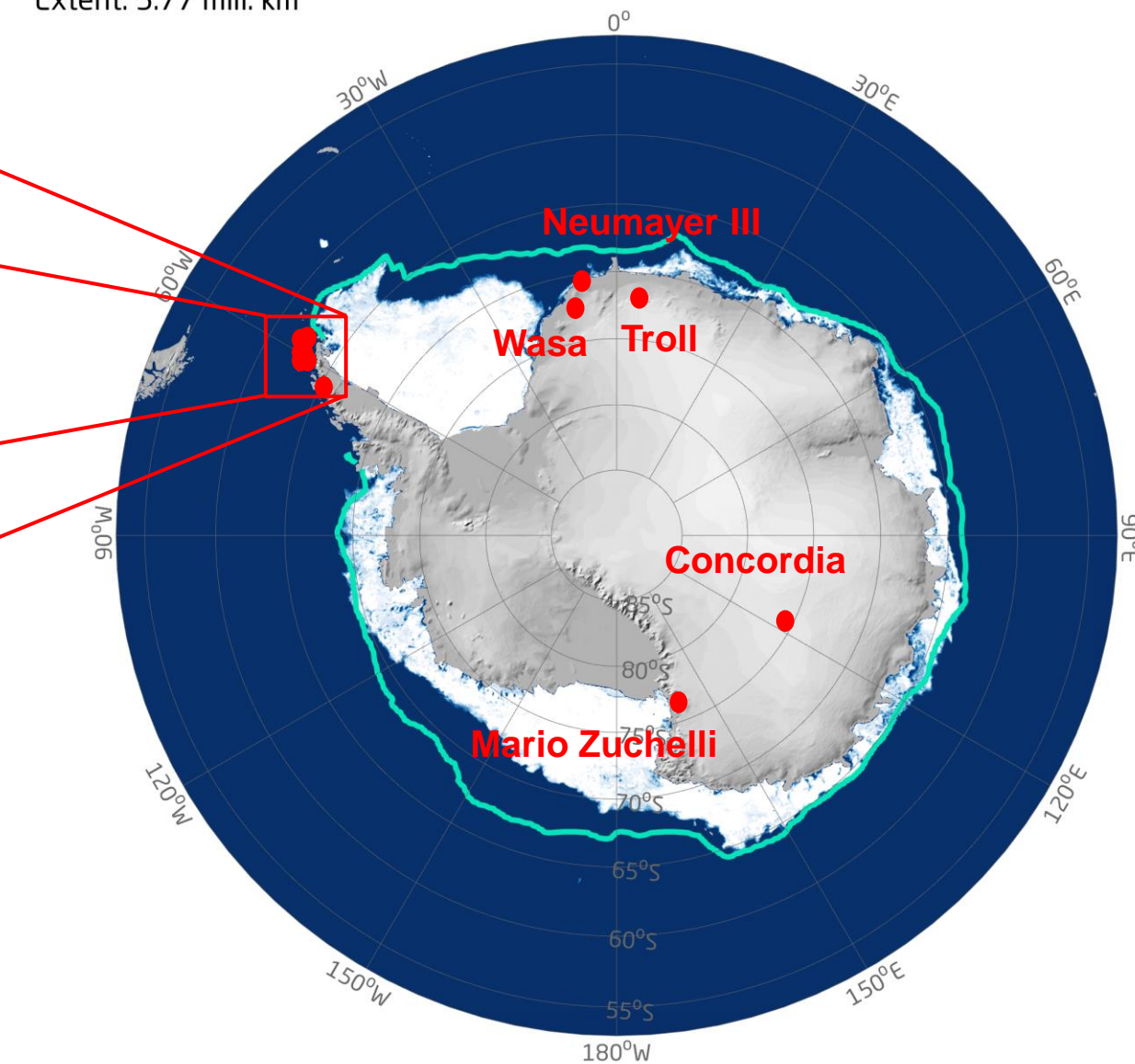
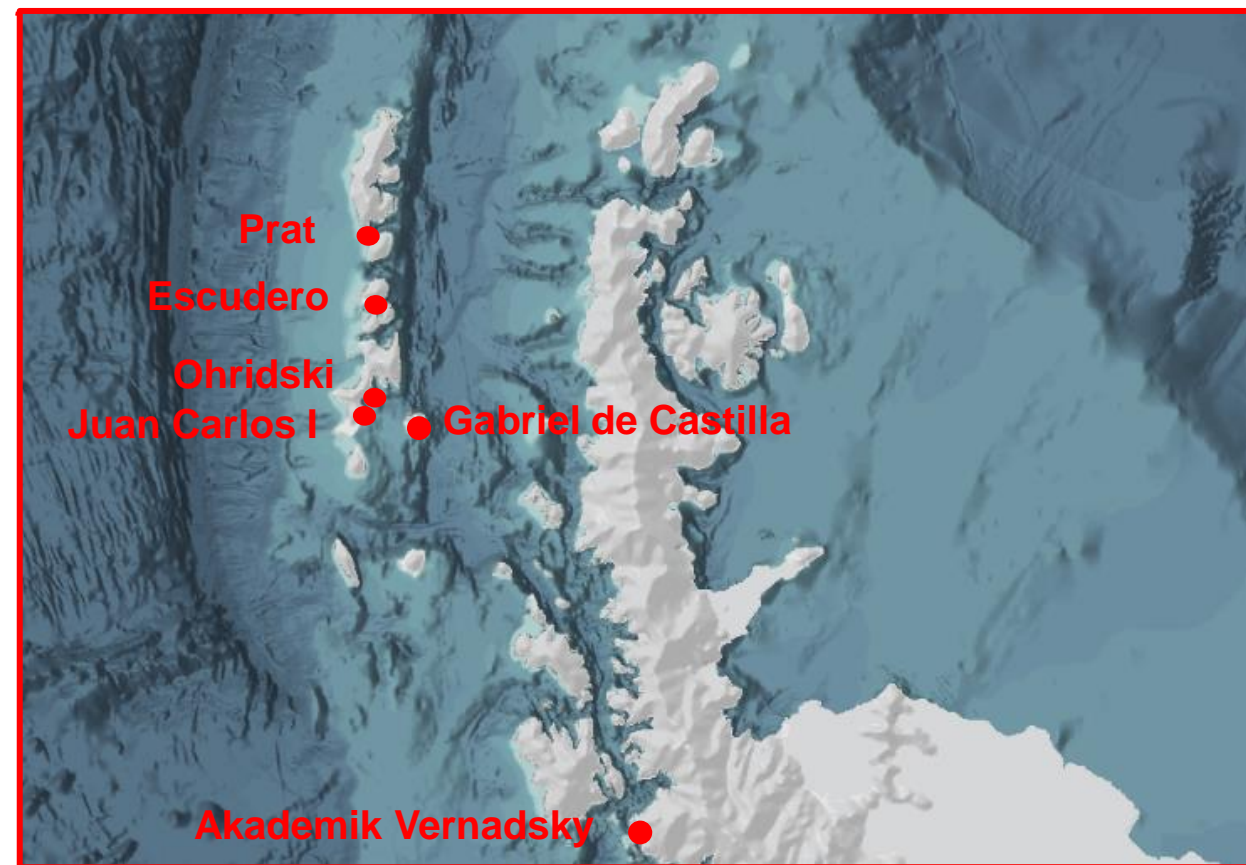


# POLARIN Stations in Antarctica

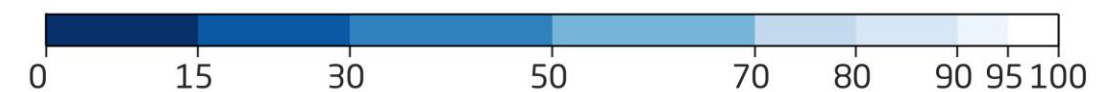
## Daily sea-ice concentration

Antarctic, 10 Apr 2024

Extent: 5.77 mill. km<sup>2</sup>



### Sea-ice concentration (%)



— Mean sea-ice extent in April 1981-2010 (NSIDC)



# POLARIN INFRASTRUCTURE



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



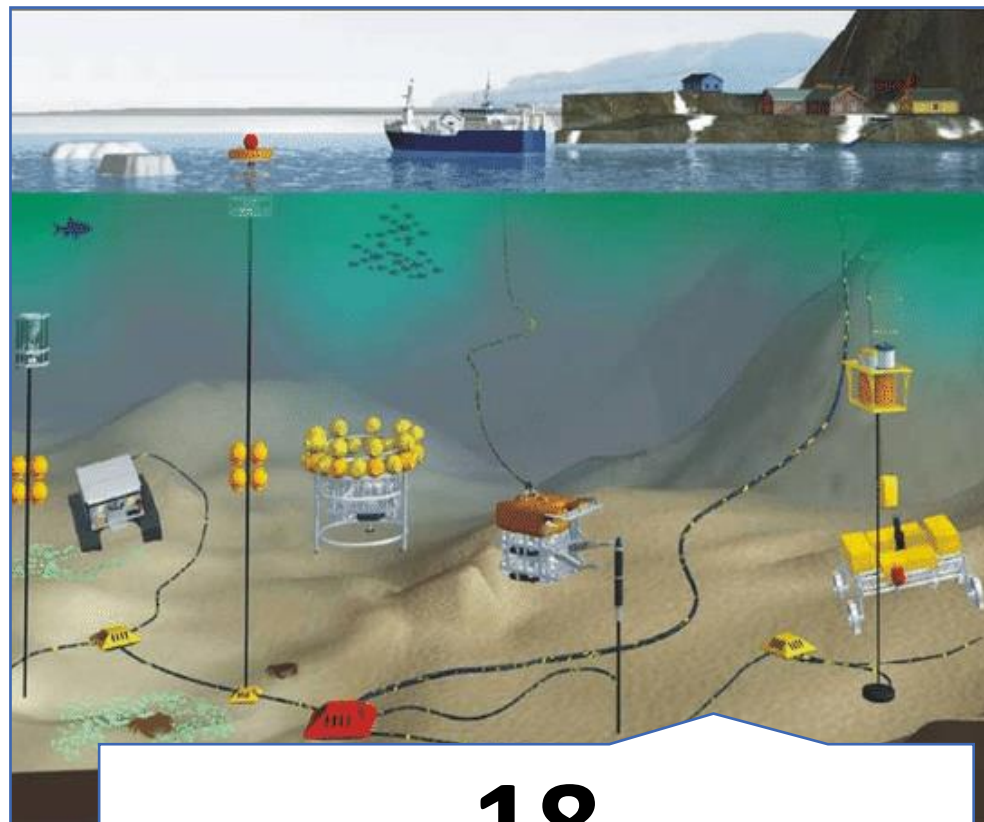
TARA polar station, FR



**12**  
Polar vessels



# POLARIN INFRASTRUCTURE



**18**  
Observatories

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

# POLARIN INFRASTRUCTURE



**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





# POLARIN INFRASTRUCTURE



# 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

## Transnational Access



In person



Remote



Virtual access



# Transnational Access



Proposal based, Challenge driven

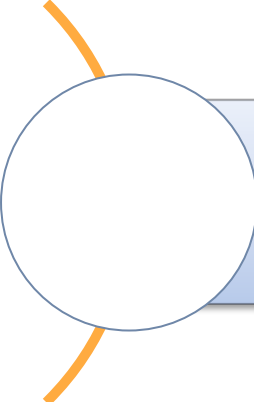
Access to RIs from other countries

International cooperation

Externally evaluated

If granted, access to RI and travel expenses are covered by the project

# Virtual Access



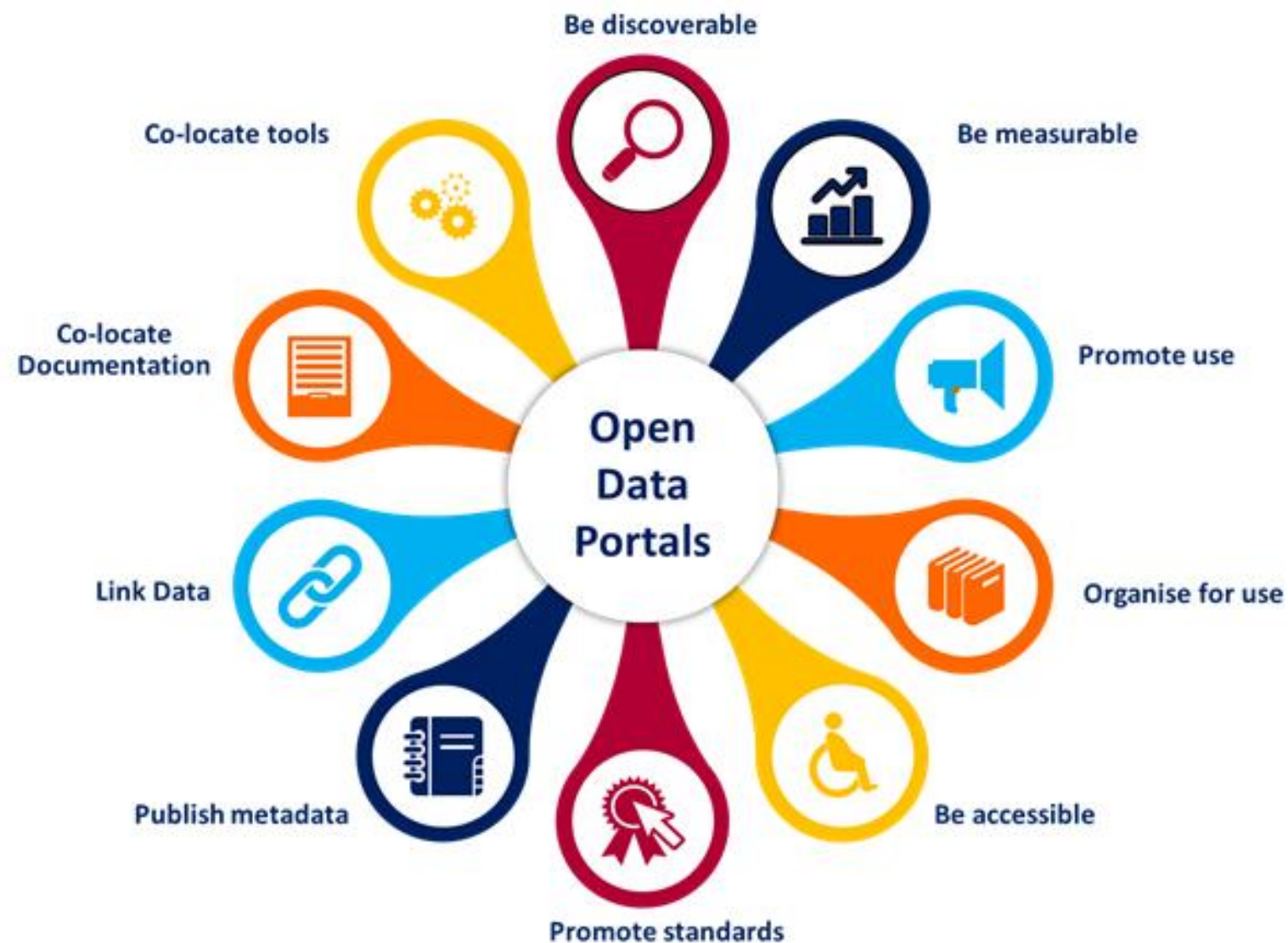
Open access to (new) data,  
databases and data services





# Data services and data products

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.

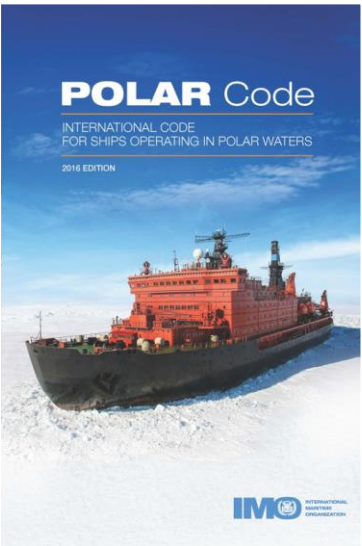
# Training for infrastructure users



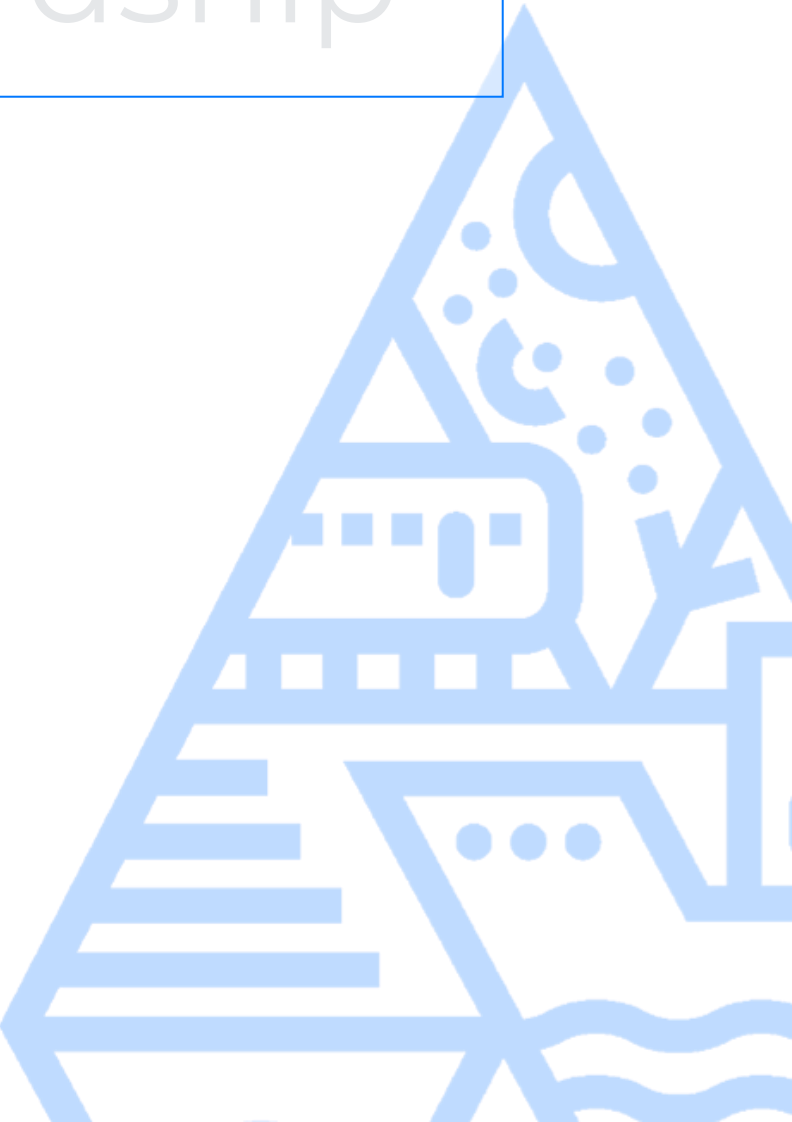
Training for early career scientists and professionals



Training on data stewardship



Safety training





# POLARIN ADVISORY BOARD



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NSF



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Chair of the  
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Research  
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Antarctic  
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EMSO

Diego Fernández  
ESA



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

# Connection with other projects, forums, organisations





# Contact Us

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