



Training the new generation of infrastructure users

Michele Rebesco, OGS - National Institute of Oceanography and Applied Geophysics, Italy Morten Rasch, University of Copenhagen, Denmark



POLARIN Kom WP7 - Bremerhaven 18 April 16,15-17,30

Agenda of yesterday WP 7 meeting:



16:20 – 16:50 <u>Task 7.1.</u>

Training for ECRs and technical personnel to optimally use leading-edge RIs (APECS/UiT, UCPH)

16:50 – 17:20 <u>Task 7.2.</u>

Training on data stewardship (SIOS, OGS)

17:20 – 17:50 <u>Task 7.3.</u>

Task 7.3. Training to perform safe and sustainable polar expeditions (*FLPO, UCPH, AU*)

17:50 – 18:00 Wrap-up and conclusions (*UCPH, OGS*)

POLARIN Workpackage 7: Training for infrastructure users



Workpackage leaders:

Morten Rasch, University of Copenhagen, Denmark Michele Rebesco, OGS -National Institute of Oceanography and Applied Geophysics, Italy

Partners:

University of Copenhagen, Denmark

OGS - National Institute of Oceanography and Applied Geophysics, Italy

Alfred Wegener Institute, Germany

Centre National de la Recherche Scientifique, France

ETT, Italy

Aarhus University, Denmark

APECS at University of Tromsø, Norway

Svalbard Integrated Observing System, Norway

Tasks:

Task 7.1. Training for Early-Career Scientists and technical personnel to optimally use leading-edge research infrastructures

Task 7.2. Training on data stewardship

Task 7.3. Training to perform safe and sustainable polar expedition



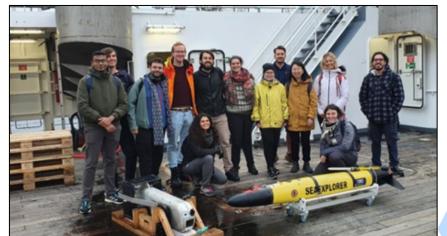


The partners in POLARIN Workpackage 7 have long experience in training on board European vessels and ice breakers developed in previous EU projects (e.g. EUROFLEETS and ARICE)













The partners in POLARIN
Workpackage 7 further have
long experience in training
users of arctic terrestrial
research infrastructures from
previous EU-projects (e.g.
SCANNET, INTERACT I,
INTERACT II and INTERACT III)











WP7: Training for infrastructure users either on land or at sea, in both the Arctic and Antarctica

WHY (expected results):

- · To fully utilise polar infrastructures efficiently, safely, and sustainably
- · To manage data with FAIR principles and benefit available data, products and tools
- · To actively engage early career researchers
- · To impact past the project period

HOW (approach):

- · E-learning packages;
- · Online seminars;
- · Printed material;
- · in the field safety training of expeditions concept (pilot implementation).

WHEN:

The training programme(s) will be connected to the three calls for TA grants and will educate the participants. Following each call, the beneficiaries of TA grants will be trained when they start planning their work. The researchers will be contacted immediately after receiving the grant to set up training sessions. The training package will be widely advertised and open to all interested users of polar research infrastuctures (not only POLARIN grantees).





POLARIN Workpackage 7: Training for infrastructure users



Deliverables:

D7.1: Online material on data stewardship training, M14, (SIOS).

D7.2: Training material for in-the-field course on expedition safety and sustainability, M15, (FLPO).

D7.3: Online training material on optimal use POLARIN RIs, M23, (UCPH).

D7.4: Package of short information material on optimal use of POLARIN RIs, M30, (AU).

D7.5: Package of short information material on data stewardship, M35, (AU).

D7.6: Assessment of the training on optimal use of RI's and on data stewardship, M53, (OGS).

D7.7: Assessment report of the in-the-field course on polar safety and sustainability, M53, (UCPH).

Milestones:

M7.1: First guidelines on the handling of data collected on research expeditions published (M24).

M7.2: First training course for TA-users on optimal use of POLARIN RI's accomplished (M30).

M7.3: Field course on safe and sustainable polar expeditions accomplished (M45).

Expected timeline for the first two years:

M14 = May 2025 (D7.1)

M15 = June 2025 (D7.2)

M23 = Feb. 2026 (D7.3)

M24 = March 2026 (M7.1)

Task 7.1: Training for ECRs and technical personnel to optimally use leading-edge research infrastructures

Prepare a new generation of researchers to optimally use leading edge Ris, on land and at sea in the Arctic and Antarctica.



Topics include:

- · Polar research infrastructures and their environment
- · How to plan and accomplish a research expedition successfully
- · Safety in polar environments and at sea
- · How to secure the highest possible level of environmental, ethical, and economic sustainability of work in polar regions
- · How to obtain permits of relevance (Antarctic Treaty, Arctic governance, national and international regulations of relevance to research in polar regions)
- · How to get freight to/from polar research infrastructures is and/or install your equipment on marine research infrastructures
- · Scientific instrumentation at polar research infrastructures and how to obtain their data
- · How to plan a safe and sustainable stay at a polar research infrastructure

Task 7.1: Training for ECRs and technical personnel to optimally use leading-edge research infrastructures



Develop timeline to meet deliverable in February 26: D7.3 (Online training material on optimal use POLARIN Ris

Review existing training material

Avoid overlap between all training deliverables and create a cohesive training package by narrowing down the scope of the various outputs

Ensure consistency and co-develop material used in Task 7.1 and 7.3:

(iii) For safety in polar environments and at sea

(iv) to secure environmental, ethical, and economic sustainability of work...

Refine the e-learning package: distribution platform, length, alignment with partner university offerings?

Define scope for online seminar -> distilled version of the e-learning package?

Define number and scope of printed materials and relation to deliverables

Task 7.1: Training for ECRs and technical personnel to optimally use leading-edge research infrastructures

Risks for implementation



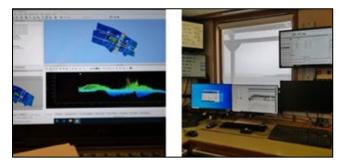
- Training is out of scope (low likelihood / medium severity)
 - → review needs of RI and previous RI users
 - → seek early community input to understand requirements
- Training is not effective (low likelihood / medium severity)
 - → actively obtain feedback from first users
 - → continuously evaluate and improve material
- Training is not engaging (low likelihood / low severity)
 - → offer different modalities when providing training/information
 - → be open for requirements from the community



Task 7.2: Training on data stewardship

Training to curate data as well as to make new data collections ready for and compliant with data management and interoperability tools.







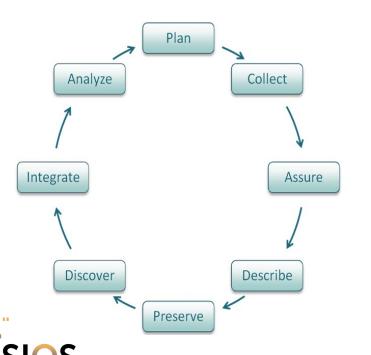
- · Open Science requirements
- · Practical implications of the FAIR principles
- · Purpose and use of data management plans
- · Collaboration between scientists and data managers
- · Data centres that are curating data
- · Standardised semantic annotations for understanding by different communities,
- · Tools and services developed within POLARIN



Task 7.2: Training on data stewardship

Planned: In-person workshops focussing on use of the POLARIN assets and tools developed in WPs 2-5

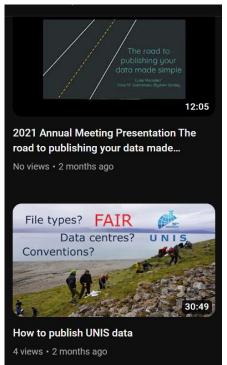




The training will facilitate learning and learning-by-doing procedures to curate data as well as to make new data collections ready for and compliant with WP4 and VAI/WP5 data management and interoperability tools.

This task will use practical examples based on the WP4 and VA1/WP5 recommendations to provide training focused on the above-mentioned data stewardship topics.





Task 7.2: Training on data stewardship

IMPLEMENTATION, next steps





Needs for TA and VA of the projects, WP2-5.

Update of e-training material







Task 7.3: Training to perform safe and sustainable polar expeditions

Develop a training concept (in the field) with experienced trainers and in compliance with the Polar Code, to ensure that PIs of polar expeditions are able to deal with emergency situations on ice, water, and remote shores.









Topics include:

- · Training material on how to perform safe and sustainable polar expeditions and make it available online
- · Safety training under Arctic conditions to train Pl's of POLARIN expeditions according to the Polar Code
- · Training of participants in the field on how to reduce the environmental impacts of a polar expedition



Task 7.3: Training to perform safe and sustainable polar expeditions







Identify which training is demanded by regulations / needed for





Ships (national regulations and owners / representatives regulation)

Stations (international and owners / representatives regulation)



Field campaigns (international and owners / representatives regulation)



Task 7.3: Training to perform safe and sustainable polar expeditions







Next steps for implementation:

Set up virtual training for:

- Virtual access
- Preparation of ,in-situ' training

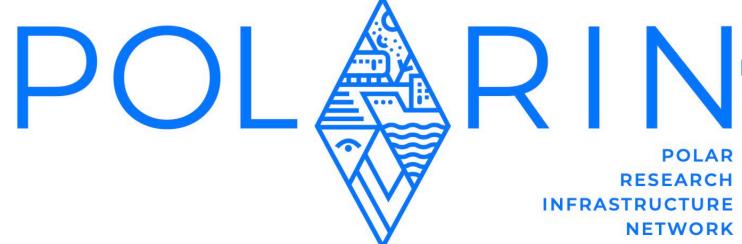
'basic training' for participants Versus 'advanced training' for PIs

Media:
Production of training /
education material









Thanks for listening

