

The EU Arctic Cluster

Implementing the European Arctic Policy and fostering international cooperation



www.eu-arcticcluster.eu

Integrated European Union Policy for the Arctic

3 priority areas

1. Climate change and safeguarding the Arctic Environment
2. Sustainable Development in and around the Arctic
3. International Cooperation on Arctic Issues.



Why is the EU funding Arctic research?

- **Global consequences and risks** of Arctic change.
- **Mitigation and adaptation strategies in the Arctic** are part of the EU's efforts to combat climate change and to implement the **Paris Agreement**.
- Contribution to the achievement of the **UN Sustainable Development Goals (SDGs)**.
- Development of **appropriate policies**, including those relating to climate change and sustainable development.



“Spending in Arctic research and observations is not a cost but an investment that generates benefits.”

*Andrea Tilche,
European Commission*



Photo: SPRS



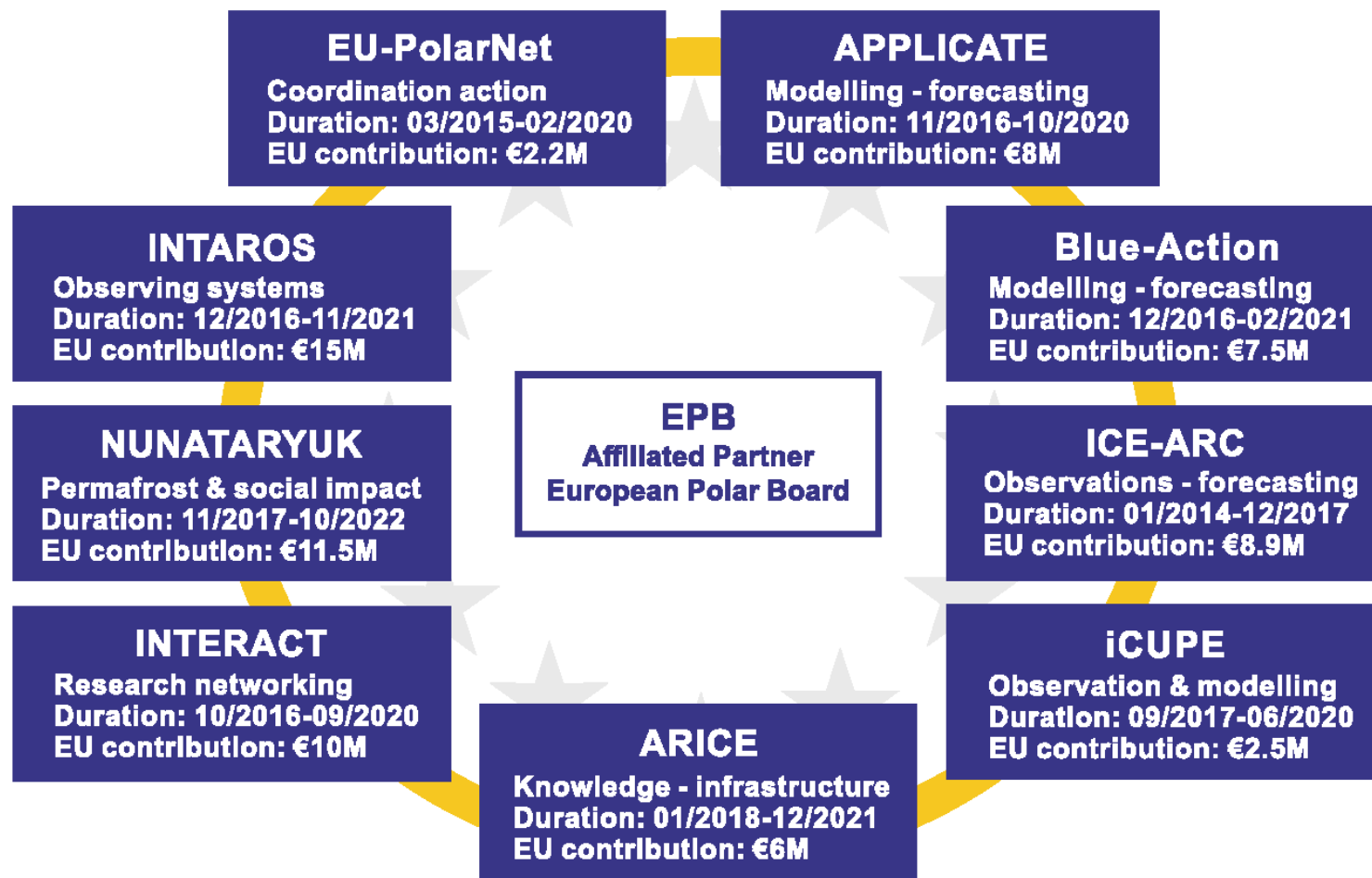
Photo: Witold Kaszkin



Photo: IPEV

The EU Arctic Cluster

EU ARCTIC PROJECT CLUSTER



The EU Arctic Cluster projects have received funding from the European Union's Horizon 2020 research and innovation programme or the European Union's Framework 7 Programme respectively. Please visit our website for the specific grant numbers.





Is the world's largest consortium of expertise and infrastructure for polar research with the ambition to co-design a strategic framework to prioritise science, advice the European Commission on polar issues, optimise the use of polar infrastructure, and broker international partnerships.

17 European countries

22 consortium members

25 cooperation partners

Coordinator: AWI, Germany

Duration: 03.2015 – 02.2020

Budget: 2.2 Mio Euro

www.eu-polarnet.eu



INTAROS Integrated Arctic Observation System



INTAROS

Will develop an integrated Arctic Observation System by extending, improving and unifying existing systems in the different regions of the Arctic. INTAROS has a strong multidisciplinary focus, with tools for integration of data from atmosphere, ocean, cryosphere and terrestrial sciences.

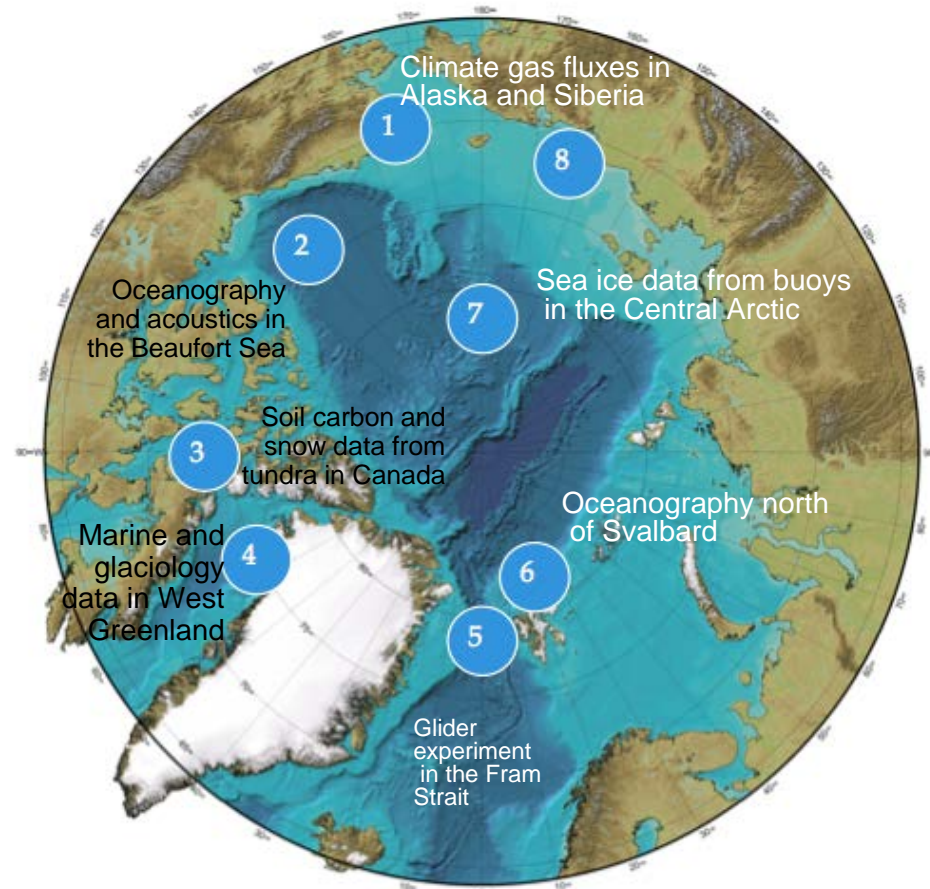
20 countries

49 partners

Coordinator: NERSC, Norway

Duration: 12.2016 – 11.2021

Budget: 15 Mio Euro



www.intaros.eu



Will develop enhanced predictive capacity for weather and climate in the Arctic and beyond, and to determine the influence of Arctic climate change on Northern Hemisphere mid-latitudes, for the benefit of policy makers, businesses and society.

9 European countries
16 consortium members
Coordinator: AWI, Germany
Duration: 11.2016 – 10.2020
Budget: 8 Mio Euro

www.applycate.eu





Arctic Impact on Weather and Climate

Seeks to understand the linkages between the Arctic and the global climate systems to improve weather and climate modelling and prediction, to improve forecasting of hazardous conditions and climate extremes, and to co-design targeted climate services with relevant stakeholders.

17 Countries

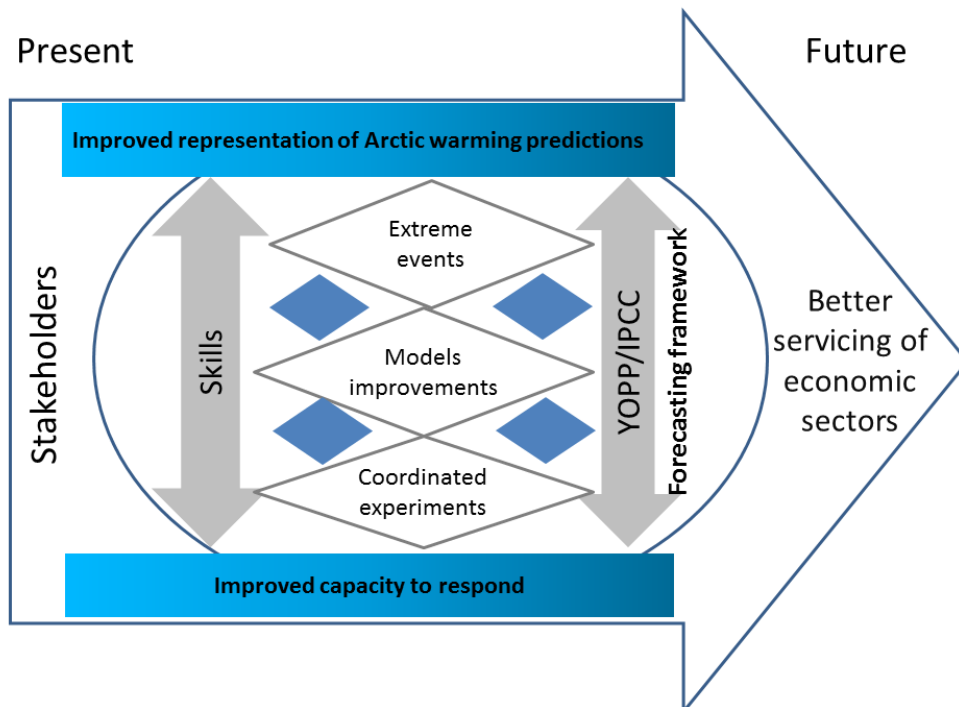
40 Partners

Coordinator: DMI, Denmark

Duration: 12.2016 – 02.2021

Budget: 8 Mio Euro

www.blue-action.eu





Will develop quantitative understanding of the fluxes and fates of organic matter released from thawing coastal and subsea permafrost; assess risks posed by thawing coastal permafrost, to infrastructure, indigenous and local communities and peoples health; use this understanding to estimate the long-term impacts of permafrost thaw on global climate and the economy.

12 European Countries

28 Partners

Coordinator: AWI, Germany

Duration: 11.2017 – 10.2022

Budget: 11.5 Mio Euro

www.nunataryuk.org





A FP7 project that brought together experts in the fields of economics, natural and social sciences, and technology in order to directly assess the environmental, social and economic impact of Arctic sea ice loss. These trans-disciplinary programmes are essential if we are to continue to strengthen the links between science and society.

11 European Countries (incl. Russia)

22 Partners

Coordinator: BAS, UK

Duration: 01.2014 – 12.2017

Budget: 8.9 Mio Euro

www.ice-arc.eu





Circumarctic network of 82 terrestrial field bases in all Arctic countries and adjacent high alpine and forested areas. INTERACT is building capacity for identifying, understanding, predicting and responding to diverse environmental changes throughout the environmental and land-use envelopes of the Arctic.

18 Countries

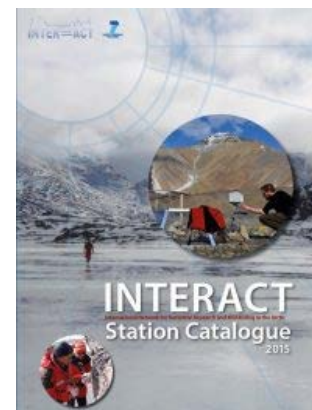
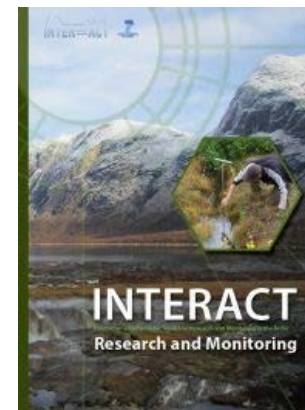
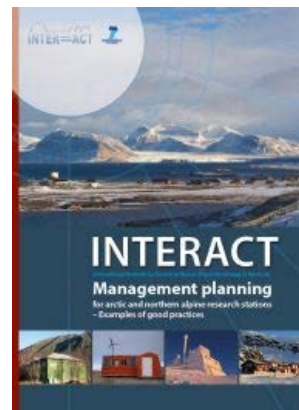
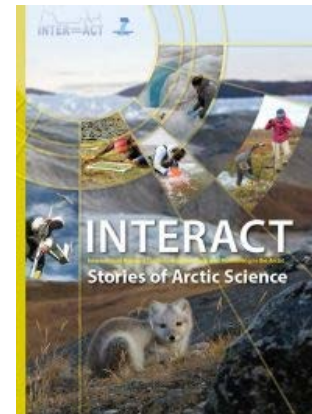
47 Partners

Coordinator: LU, Sweden

Duration: 10.2016 – 09.2020

Budget: 10 Mio Euro

www.eu-interact.org





An international cooperation strategy aiming at improving Europe's Arctic capacities by better coordinating the existing polar research fleet, by offering transnational access to a set of international High Arctic research icebreakers and by collaborating with maritime industry in a "programme of ships and platforms of opportunity".

14 Countries

14 Partners

Coordinator: AWI, Germany

Duration: 01.2018 – 12.2021

Budget: 6 Mio Euro

www.arice.eu





iCUPE improves the understanding of polar areas by combining integrated in-situ measurements, satellite observations and a modelling platform. It develops integrated, quality-controlled and harmonized data, relates the observed parameters to impacts and develops novel data products, metrics and indicators to the stakeholders.

9 Countries

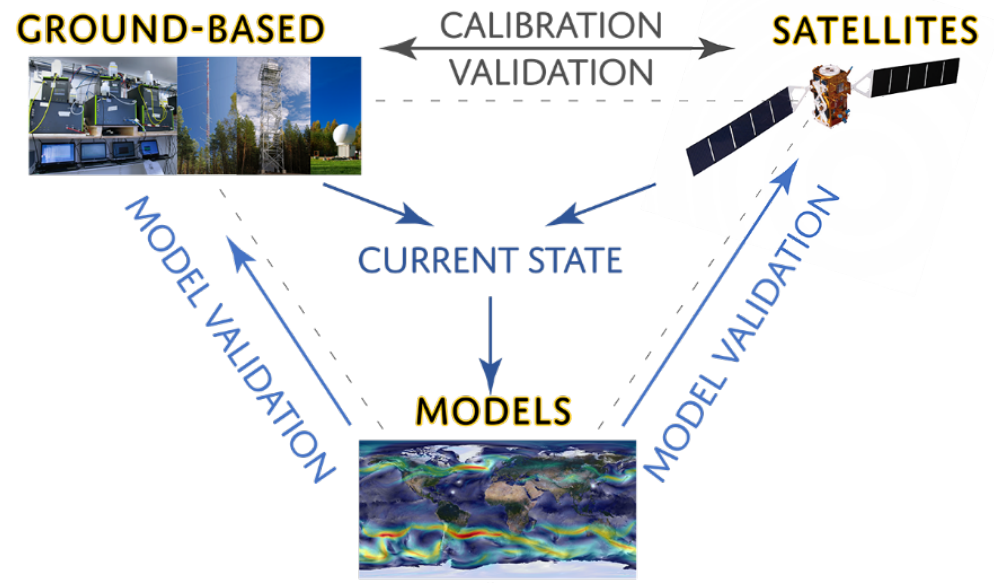
13 Partners

Coordinator: Helsinki University

Duration: 09.2017 – 06.2020

Budget: 2.5 Mio Euro

www.atm.helsinki.fi/icupe/



Affiliated Partner: European Polar Board



EUROPEAN POLAR BOARD

The European Polar Board (EPB) is an independent organisation that focuses on major European strategic priorities in both the Arctic and Antarctic regions. Its Members include European research institutes, funding agencies, scientific academies and polar operators.

19 Countries

27 Members

Host: NWO, The Netherlands

www.europeanpolarboard.org



EU Arctic Cluster – Working together

Objectives of the Cluster

- **Creating synergies** between already planned activities to maximise impact and visibility of European polar research.
- **Pooling resources** (human, financial, in kind...) to upscale efforts.
- **Increase knowledge sharing** and maintaining **legacy** of finished projects.
- **Joint activities** related to communication, stakeholder management, data management and education.



EU Arctic Cluster Task Groups

Communication

(Lead: Kristina Baer, AWI)

Stakeholder Management

(Lead: Annette Scheepstra, RUG)

Data Management

(Lead: Serge Scory, RBINS)

Education

(Lead: Gerlis Fugmann, APECS)



Photo: Nicole Biebow



Photo: Kristina Bär

Communication Task Group

The EU Arctic Cluster at the **Arctic Circle Assembly** 2017



Breakout sessions on the EU Arctic Policy:

- Climate change, science, and safeguarding the Arctic environment
- Science as catalyst for international cooperation

EU Arctic Cluster joint booth & flyer

Communication Task Group

The EU Arctic Cluster at COP23



Photo: Alfred-Wegener-Institut / Mario Hoppmann (CC-BY 4.0)

#ArcticCOP23

POLAR INSIGHTS FOR CLIMATE ACTION

Arctic science contributions to implementing the Paris Agreement

Warming at almost twice the global average rate, the Arctic is a key region for understanding wider climate change impacts. Mitigation and adaptation strategies in the Arctic are thus an integral part of the EU's wider efforts to combat climate change and to implement the Paris Agreement. This session will provide up-to-date and policy-relevant information on Arctic change and its global implications.

15th November 2017
11:45—13:00
EU Pavilion
COP23 Bonn Zone

Moderation - Jonathan Bamber
(European Geosciences Union)

Impact of the EU's investment in Arctic science Andrea Tilche (European Commission)

Arctic impacts on global atmosphere and ocean circulation Dirk Notz (MPI Hamburg)

The impacts of Arctic sea ice decline
Jeremy Wilkinson (British Antarctic Survey)

Melting glaciers and ice sheets and their impacts on global sea level rise Sebastian H. Mernild
(Nansen Environmental & Remote Sensing Center)

The consequences of permafrost thaw
Margareta Johannsson (Lund University)

A COP23 Side Event hosted by the EU Arctic Cluster
www.eu-arcticcluster.eu



Stakeholder Task Group

Coordinating Stakeholder Engagement

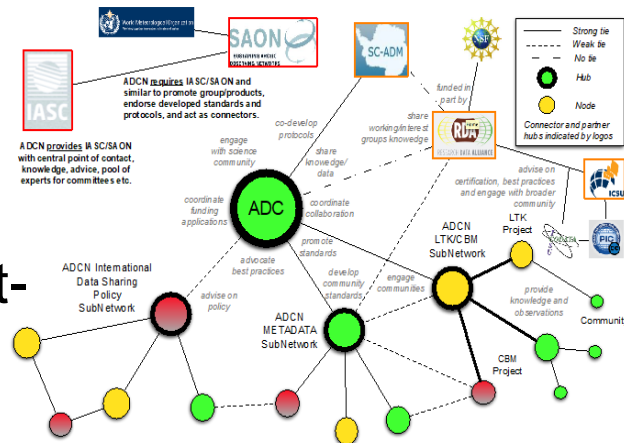


Photo: Michael Funcke-Bartz/GIZ

Emerging Task Groups

Data management

- Provide info on existing data, best practices and tools
- Share project data management plans
- Technical guidance and aligned documentation



Pulsifer, P. L., Yarmey, L., Godøy, Ø. et al. (2014)

Education

- Creating joint education initiatives and synergies between existing activities



APPLICATE

The EU Arctic Cluster

Questions or
comments?

www.eu-arcticcluster.eu