The EU Arctic Cluster
Implementing the European Arctic Policy and fostering international cooperation

www.eu-arcticcluster.eu

Photo: Steffen Olsen
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
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
The EU Arctic Cluster

EU ARCTIC PROJECT CLUSTER

EU-PolarNet
Coordination action
Duration: 03/2015-02/2020
EU contribution: €2.2M

APPLICATE
Modelling - forecasting
Duration: 11/2016-10/2020
EU contribution: €6M

IN TAROS
Observing systems
Duration: 12/2016-11/2021
EU contribution: €15M

NUNATARYUK
Permafrost & social impact
Duration: 11/2017-10/2022
EU contribution: €11.5M

INTERACT
Research networking
Duration: 10/2016-09/2020
EU contribution: €10M

Blue-Action
Modelling - forecasting
Duration: 12/2016-02/2021
EU contribution: €7.5M

ICE-ARC
Observations - forecasting
Duration: 01/2014-12/2017
EU contribution: €8.9M

iCUPE
Observation & modelling
Duration: 09/2017-06/2020
EU contribution: €2.5M

EPB
Affiliated Partner
European Polar Board

ARICE
Knowledge - infrastructure
Duration: 01/2018-12/2021
EU contribution: €6M

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.
EU-PolarNet 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](http://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.

- Climate gas fluxes in Alaska and Siberia
- Oceanography and acoustics in the Beaufort Sea
- Sea ice data from buoys in the Central Arctic
- Soil carbon and snow data from tundra in Canada
- Marine and glaciology data in West Greenland
- Glider experiment in the Fram Strait
- Oceanography north of Svalbard
- Sea ice data from buoys in the Central Arctic

20 countries
49 partners
**Coordinator:** NERSC, Norway
**Duration:** 12.2016 – 11.2021
**Budget:** 15 Mio Euro

[www.intaros.eu](http://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.apPLICATE.eu
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
NUNATARYUK

Permafrost thaw and the changing Arctic coast, science for socioeconomic adaptation

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
ICE-ARC

Ice, Climate, Economics – Arctic Research on Change

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](http://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](http://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/
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
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)
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**

Photos: Nicole Biebow
The EU Arctic Cluster at COP23

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 Tilke (European Commission)
Arctic impacts on global atmosphere and ocean circulation - Dirk Notz (MPG 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

Photos: Kristina Baer
Stakeholder Task Group

Coordinating Stakeholder Engagement
Emerging Task Groups

Data management

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

Education

• Creating joint education initiatives and synergies between existing activities

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