



BEYOND ARCTIC PASSION

Transforming Arctic observations
into actionable knowledge

Duration:
September 2026 - August 2030



www.beyond.arcticpassion.eu

Bringing people, knowledge and technology together to co-design a
coordinated Arctic Observing System of Systems.

Actionable Knowledge for the Arctic



Situational Awareness

Safer transportation,
environmental change,
ecosystem knowledge



Risk Assessment

Stronger early warning and
preparedness



Policy and Planning

Enable evidence-based
decisions for a
sustainable Arctic



Community Decision Making

Information access empowers
local solutions



Open Data and Innovation

Accessible data drives research,
services and innovation



Observing System Governance

Coordination, equity and
sustainability



Funded by
the European Union

At a Glance

The Arctic is warming nearly four times faster than the global average, reshaping ecosystems, communities, and economies – and the window to respond is narrowing. For years, scientists, Indigenous Peoples, communities and governments have worked to build a coordinated Arctic Observing System of Systems. Beyond Arctic PASSION is a major European and international contribution to that effort. Uniting 40+ partner organisations across 16 countries, the project connects satellites, ships, and sensors with Indigenous-led and community-based monitoring into one trusted, accessible source of Arctic knowledge for communities, scientists, decision-makers, and industry.

€8.5M

EU contribution

48

Months duration

40+

Partner organisations

15

Countries across Europe, North America & Asia

6

Arctic states

2

Indigenous Peoples' organisations

ONE

Shared Arctic Observing System Of Systems

Beyond Arctic PASSION builds on the foundations laid by Arctic PASSION, INTAROS, and other flagship Arctic observing initiatives – bringing their achievements together into one sustained, inclusive, and operational Arctic Observing System of Systems.

- ✓ *Connects Arctic observations across borders and disciplines*
- ✓ *Strengthens Indigenous participation and knowledge sharing*
- ✓ *Delivers actionable information for communities, decision-makers and industry*

What is the challenge?

- *The Arctic is changing faster than our current ability to observe it.*
- *Today's observations remain fragmented across nations, observing infrastructures, data systems and knowledge systems.*
- *No single organisation—or country—can solve this alone.*

Beyond Arctic PASSION addresses these challenges

Governance & sustainability — Inclusive, long-term coordination shaped by Indigenous Peoples, scientists, industry, and policymakers together

Outcome → a coordinated Arctic observing system that stays resilient, usable and effective beyond the project.

Open, interoperable data — Connected data and knowledge systems enabling forecasting, modelling, and risk assessment

Outcome → accessible knowledge that enables better, evidence-based decisions.

Closing observation gaps — Autonomous sensors, AI, and co-designed monitoring combined with Indigenous Knowledge and local knowledge

Outcome → actionable information and tools different communities can use today.



FROM FRAGMENTED COMPONENTS

The Arctic is changing faster than our current ability to observe it. Observing system components are not integrated enough to address associated impacts and challenges



Observations

- In situ
- Remote sensing
- Autonomous platforms



Knowledge systems

- Science
- Indigenous Knowledge
- Local knowledge



Data systems

- Collection
- Standards
- Infrastructure



Governance

- Coordination
- Stewardship
- Policy



Communities and Livelihoods

- People
- Culture
- Economic activities

TO COORDINATED IMPACT

Beyond Arctic PASSION connects people, knowledge, and technology to co-design a functional Arctic Observing System of Systems



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into actionable knowledge



Communities

Engaged,
informed and
empowered



Governance

Inclusive,
coordinated and
effective



Data

Open, trusted,
interoperable
and FAIR/CARE



Knowledge systems

Science, Indigenous
Knowledge and local
knowledge



Observations

Coordinated and
fit-for-purpose
monitoring

COORDINATED ARCTIC OBSERVING SYSTEM OF SYSTEMS



Observe

Collect diverse
observations



Connect

Combine data
and knowledge



Understand

Generate knowledge
and insights



Act

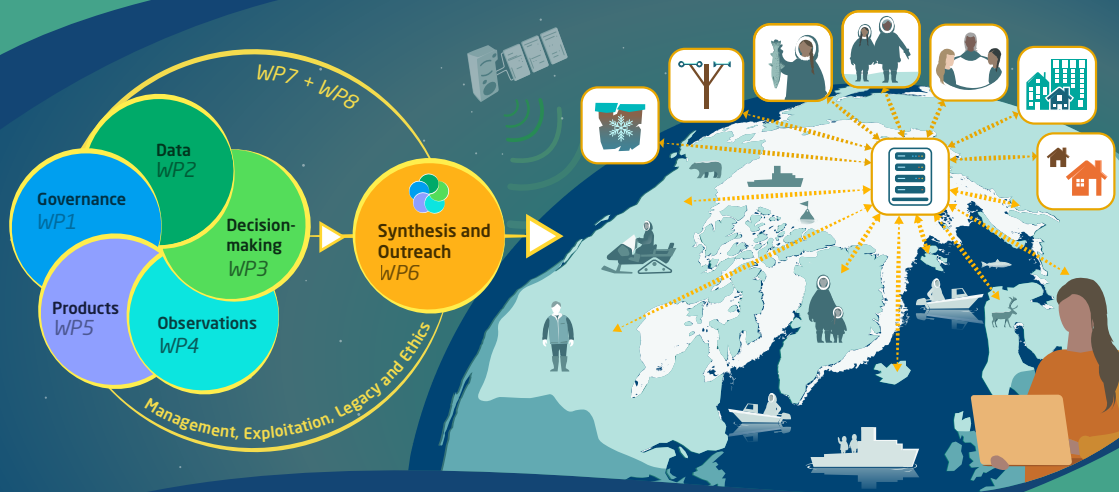
Enable decisions
and solutions

How will it be delivered?

Beyond Arctic PASSION accelerates a sustainable, advanced, and inclusive Arctic Observing System of Systems – combining cutting-edge science, Indigenous Knowledge, local knowledge, advanced technologies, and transparent governance.

The project is structured around seven interlinked Work Packages:

- WP1 Governance & long-term sustainability*
- WP2 A coordinated Arctic Data System*
- WP3 Sustainable management & decision-making*
- WP4 Marine & cryosphere observing systems*
- WP5 Data products for end users*
- WP6 Synthesis, dissemination & communication*
- WP7 Project management, exploitation & legacy*
- WP8 Ethics requirements*



Legacy

Beyond Arctic PASSION will result in a better coordinated, more equitable Arctic Observing System of Systems that continues delivering trusted, actionable knowledge long after the project ends.

Who is making it happen?

40+ organisations **15** countries

One shared vision

Beyond Arctic PASSION's strength lies in its breadth and experience: Indigenous Peoples' organisations sit alongside national research institutes and universities, operational data services, local government representatives, and industry, spanning Europe, North America, and Asia.



This diversity of expertise and perspective is not incidental; it is the foundation that makes a genuinely coordinated, trusted, and equitable observing system possible.

■ partner countries

European coordination bodies: European Polar Board, SIOS Svalbard Integrated Arctic Earth Observing System, INTERACT - International Network For Terrestrial Research And Monitoring (INPA),

Arctic Council Working Group: Arctic Monitoring and Assessment Programme Secretariat (AMAP)

Indigenous Peoples' organisations: Saami Council, Inuit Circumpolar Council - Canada and Greenland

Early Career organisation: Association of Polar Early Career Scientists (APECS)

Local and regional governance: Arctic Mayors' Forum

Gender and inclusion: Women of the Arctic

Science for policy: European Commission - Joint Research Centre

Science communication: GRID-Arendal

Private science sector: O.A.SYS - Ocean Atmosphere Systems GmbH

Data & Copernicus integration: Mercator Ocean, PANGAEA (AWI), Seascope Belgium, Norwegian Meteorological Institute

Canadian Institutes: Arctic Institute of North America, University of Ottawa, Carleton University

European Institutes: **Denmark:** Danish Meteorological Institute, Aarhus University; **Finland:** Finnish Meteorological Institute, University of Helsinki, University of Lapland; **France:** French National Centre for Scientific Research; **Germany:** Alfred Wegener Institute (AWI); **Greenland:** Greenland Institute of Natural Resources; **Italy:** National Research Council of Italy, National Institute of Oceanography and Applied Geophysics; **Norway:** UiT The Arctic University of Norway, Norwegian Polar Institute, Nansen Center, Institute of Marine Research; **Poland:** Institute of Oceanology Polish Academy of Sciences; **UK:** British Antarctic Survey, The Alan Turing Institute

Japanese Institutes: National Institute of Polar Research, Japan Agency for Marine-Earth Science and Technology

South Korean Institutes: Korea Polar Research Institute

USA Institutes: University of Washington, University of Colorado, University System of Maryland, University of Alaska Fairbanks

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**BEYOND
ARCTIC
PASSION**

Visit our webpage to follow the project's journey.



www.beyond.arcticpassion.eu

Different disciplines, different knowledge systems, one shared commitment to strengthening the Arctic's Observing System Of Systems.



Funded by
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