

EUROPEAN POLAR BOARD

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Dear Honourable Members of the European Parliament, President of the European Commission (EC), President of the European Union (EU) Council, Directors-General of the EC's Directorate-General Budget, Regional and Urban Policy, Research and Innovation, Agriculture and Rural Development, Environment, Defence Industry and Space, Prime Ministers and Governmental Representatives of the EU Member States,

Subject: Ensuring Europe's Competitiveness and Security through Dedicated Polar Research funding in the next Framework Programme

As we approach key decisions on the Multiannual Financial Framework (MFF) and the future of EU research funding, I write to you on behalf of the European Polar Board, an organisation with 31 Member Institutions from 22 countries across Europe representing European Polar Research and Operations.

We respectfully urge your support for securing dedicated funding for EU Polar Research within the Framework Programme 10 (FP10), recognising its strategic value for the EU, its Member States, and society. This letter is reinforced by our <u>open call</u> on the 13th of May 2025, currently signed by over <u>750 professionals</u> in research and research operations, advocating for targeted investments in Polar Research under FP10 to secure Europe's leadership in Polar Research.

Climate and environmental changes in Antarctica and the Arctic are occurring much faster than elsewhere in the world, leading to variability in weather patterns, sea level rise, and changes in ocean circulation that lead to extreme weather events. Additionally, emerging geopolitical tensions and resource interests are increasing the importance of polar regions to the future of Europe's economy, security, and societies.

The EU is one of the world's largest funders of Polar Research. Through the Framework Programmes, the EU has contributed to building an integrated European Polar Research Area with strong in-house expertise and global leadership in transforming theoretical concepts and observations into insight, and insight into strategic preparedness. EU-funded research has improved Europe's ability to respond to crises, and informed key strategies such as the Arctic Policy and the European Green Deal. Knowledge generated by EU-funded projects is actively contributing to intergovernmental assessments such as the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).

The attached three-page document outlines the strategic benefits of sustained and dedicated EU funding for Polar Research in the 2028–2034 MFF. It highlights the tangible contributions of Horizon 2020 and Horizon Europe Polar Research to key EU strategies and policy, advances in field and satellite data, digital twins, food security, biodiversity, as well as geopolitical and societal resilience. It also presents four priority research areas for the next decade.

A dedicated Polar Research instrument under FP10 would sustain Europe's strategic position and maximise the benefit of existing infrastructures, partnerships, and scientific networks. It would allow for focused, mission-driven research while remaining flexible to emerging challenges. Importantly, dedicated investments in Polar Research ensure the EU maintains its up-to-date, independent, and world-class expertise, which is directly accessible to support informed decision-making. Integrated baseline polar observations and coordinated European research programmes deliver first-hand policy relevant knowledge of paramount importance for European societal security and preparedness for change.

We urge you to consider what is at stake as you weigh the decisions shaping the MFF and the EU's long-term research landscape. Continued investment by the EU in Polar Research is not a luxury. These investments are strategic to develop foresight, regional stability, and provide Europe with a competitive advantage. The groundwork has been laid. The coordination mechanisms and partnerships are in place. The European Polar Research community stands ready to provide the answers Europe and the rest of the world needs. With a clear and continued commitment, the EU can maintain its leadership, build on its achievements, and respond to the evolving challenges of a changing world, confidently, collaboratively, and with foresight.

Respectfully,

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Information Document

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Context and Rationale - Why the EU needs Polar Research

Once perceived as remote, Polar regions are now recognised as global drivers of change that shape global climate, biodiversity, economy, security, culture, and the daily lives of citizens. Europe's infrastructure, resources, and geopolitical security are impacted by changes in polar regions and the growing global interest in them. Improved polar observations and models are vital for forecasting change and helping the EU be prepared for future challenges while maintaining competitiveness and security.

Sustain and strengthen EU's Leadership in Polar Research

Through its Framework Programmes, the EU has built a strong capacity to turn theoretical concepts and observations into insight and this insight into strategic preparedness. Knowledge generated by EU-funded projects contributes directly to key assessments by the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). No other funding model in the world unites leading scientists and early-career researchers as effectively as the EU's Framework Programme.

Investing in Polar Research today secures a safer, more prosperous tomorrow for Europe and the world. The European Polar Research community stands ready to provide the answers Europe and the world need. Continued, dedicated funding for Polar Research will enhance the EU's ability to address polar changes at regional and global levels. It will also reinforce and strategically position its leadership in international polar initiatives such as the 5th International Polar Year (2032-2033), and the UN Decades of Ocean (2021-2030) and Cryospheric Sciences (2025-2034). A lack of targeted Polar Research funding under FP10 will result in the EU losing its established momentum and strategic position and becoming less competitive in polar regions at a time when the stakes continue to grow.

Contributions of EU funded Polar Research to EU Priorities and Strategies

EU-funded projects from past Framework Programmes offer knowledge for shaping current and future EU strategies. Below are a few examples from HORIZON 2020 and HORIZON Europe, illustrating just a small part of their overall impact.

1. Space, Security, Digital Twins, and Strategic Autonomy: EU-funded polar projects provided the EU with field data to evaluate satellite data and enhance services such as Copernicus. For example, the projects INTAROS, Arctic Passion, and Blue-Action improved Arctic observations by filling important gaps, establishing coordinated networks, and enhancing



modelling and prediction capabilities for climate and maritime security. Additionally, **SO-CHIC** advanced understanding of Southern Ocean dynamics, air-sea interactions, and their link to climate change, which informed global models and EU climate policies. **These efforts reduce the EUs dependence on external data**, **support dual-use applications**, **enhance Digital Twins of Earth and Ocean**, and strengthen the **EU's** strategic presence in polar regions.

- 2. Competitiveness and Innovation: Operating in extreme polar conditions demands advanced technologies, resilient data networks, infrastructure, and climate modelling. The ARICE project advanced remote sensing from icebreakers aiding satellite data calibration, and APPLICATE improved climate models, providing invaluable information and projections for the energy and maritime sectors. Together, these innovations advance Europe's competitiveness and leadership in high-tech solutions for harsh environments, supporting the digital and green transitions.
- 3. Food, Resources, and Societal Resilience: Polar research contributes to the EU's food and resource security by deepening our understanding of how a changing icescape in polar environments impacts ecosystems, climate, permafrost, and sea-level rise. These changes, in turn, have significant effects on societies, fisheries, agriculture, infrastructure, and sustainable development. For example, the Nunataryuk project delivered the first ever Arctic Permafrost Atlas, useful for land use planning. Based on fisheries catch statistics and a local ecological knowledge survey, ECOTIP identified many biodiversity changes and distributional shifts impacting fisheries and marine ecosystem services. Additionally, ArcticHubs is using new tools to resolve conflicts over local resources and land to combat the profound transformations that new economic sectors and climate change have on the lives and communities of Arctic societies.
- 4. EU Adaptation Strategy, Arctic Policy, and the Green Deal: EU Polar Research provides critical data and knowledge for understanding ecosystem changes and supporting policies. Many EU-funded projects such as EU-PolarNet 1 and 2, Nunataryuk, ARICE, INTAROS, and APPLICATE provide key knowledge supporting the EU's green, blue, and digital transitions, geopolitical strategies, and Arctic Policy. PolarRES studied the Arctic and Antarctic climate interactions for refined projections and improved impact assessments. Similarly, Blue-Action examined Arctic climate impacts on Northern Hemisphere weather to improve forecasting for communities and businesses. Additionally, Beyond EPICA recovered the oldest ice core in Antarctica, to build more accurate climate reconstructions (up to 1.2 million years) and enable better climate projections. The EC highlighted POMP for its innovative approach to integrating blue carbon strategies for polar ecosystems within EU biodiversity and climate frameworks.
- **5. International Leadership, Coordination, and Collaboration**: The EU unites diverse members, serving as a global model in Polar Research. Through close cooperation, EU-funded projects leverage collective international expertise to generate cutting-edge knowledge and solutions. Key examples include the **INTERACT** and **POLARIN** projects, which enhance global access to Polar Research infrastructure.



EU-PolarNet (2015-2024), one of the world's largest polar consortia, united 25 partners to advance Polar Research and inform policymaking. It created Europe's first <u>Polar Research Priorities</u> and a method for prioritising topics across fields. EU-PolarNet also created three EU-level communication platforms: the <u>EU Polar Cluster</u>, the <u>PolarCatalyst</u>, and the <u>European Polar Coordination Office</u> (EPCO). EPCO aims to support the entire investment process, from funding calls to policy, to ensure society benefits from the money invested in science.

Future Polar Research priorities for Europe

The European Polar Research community is ready to support Europe's response to emerging challenges. The <u>EU-PolarNet 2</u> project delivered an essential list of <u>European Polar Research Priorities</u> for the next 10 years to guide effective use of funding and develop the necessary expertise for maximum societal impact. The four main research priority areas are:

- 1. Climate Change in Polar Regions (and its global impact): Understanding polar climate dynamics is key for improving global sea-level rise, weather, and climate predictions. This knowledge is the backbone of the EU's climate mitigation and adaptation strategies.
- 2. **Polar Biodiversity and Socio-Ecological Systems**: Understanding and tracking changes in polar species and ecosystems supports sustainable livelihoods, economy, and health while strengthening Europe's role in global conservation efforts.
- 3. **Human Impacts on Polar Systems**: Research in this area can further support the European Green Deal and Digital Strategy by enabling integrated Arctic and Antarctic monitoring and assessments of cumulative environmental impacts.
- 4. **Prospering Communities in the Arctic**: Research is essential for the EU to promote sustainable development in the Arctic, especially with increasing geopolitical interests. Today, research involves building trust with Indigenous communities by integrating their knowledge into policies, addressing food and water security, and understanding the impacts of environmental change, such as permafrost thaw, on global health.

Conclusions: How Europe Benefits from a Dedicated Polar Research Instrument in FP10:

With polar regions undergoing rapid change and increasing geopolitical importance, the EU stands at a critical juncture. A dedicated Polar Research funding instrument will connect science, society, and policy. It will ensure that the EU remains a leader in discovery, building a competitive, resilient, and sustainable future. It will streamline funding, foster strategic alignment, and support long-term, mission-driven research with strong policy impact. It will secure continuity of flagship projects (e.g., POLARIN), infrastructure development (e.g. observing systems, icebreakers), and strengthen the integration of Copernicus and space-based polar monitoring. It will support the European Polar Coordination Office and enable interdisciplinary research across natural, social, and technological sciences. Furthermore, it will strengthen EU competitiveness and presence in international polar governance.