



Mission to Antarctica and the Southern Ocean: collecting year-round and circumpolar observations in 2027-2030 as a contribution to the UN Ocean Decade and towards the 5th IPY

What is Antarctica InSync?

Antarctica InSync is an UNESCO endorsed Ocean Decade programme for synchronous international collaborative scientific observations in Antarctica and the Southern Ocean, to generate year-round and circumpolar data, methods and knowledge to better understand, protect and sustainably manage these regions.



2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development

Why do we need Antarctica InSync?

Antarctica and the Southern Ocean play a crucial role for climate and life on Earth and thus for our future and are changing rapidly, while models still struggle to capture these changes. Remoteness and extreme climate conditions remain a challenge to international research and especially for coordinated synergistic observation in this region. Solving these challenges is beyond the skills and infrastructure of any single science programme or nation. Working together to decipher the rapid changes currently observed, for better prediction, action and protection is our joint mission.

Antarctica InSync science, management and policy links

The governance of Antarctica InSync is provided by the assembly of the national committees responsible for polar programs. The science under Antarctica InSync will fill key knowledge gaps identified by the science communities of SCAR, SOOS and other Antarctic and Southern Ocean bodies and networks. It will contribute to SCAR's UN Decade Collaborative Centre for the Southern Ocean (DCC-SOR). Infrastructure management and logistics support will be provided by COMNAP, the EU project POLARIN and other evolving contributions. ESA will reinforce the Satellite EO component of Antarctica InSync and ensure coordination with other space agencies and partners. ATCM, CEP and CCAMLR have and will be regularly informed to ensure that Antarctica InSync results will support their work.

Who can join?

Antarctica InSync strives to implement a networked, collaborative approach, open to everyone willing to contribute, including countries without Antarctic infrastructure, as well as foundations, NGOs and business. Many Antarctic scientific research institutions & agencies and national Antarctic pro-

grammes have already joined. Their list as well as the list of national contact points will be regularly updated on the website www.antarctica-insync.org. International science teams are encouraged to register and invite others to build science plans for year-round and circumpolar studies.

The aims of Antarctica InSync

- Contribute to achieving Ocean Decade objectives and the UN sustainable development goals, by the circumpolar assessment of the connections between ice, ocean, atmosphere, climate, environment and life, including human pressures, and their solutions such as marine protection.
- Strengthen already existing and create new partnerships across nations and between all Antarctica and Southern Ocean actors to accelerate the generation and use of knowledge and understanding of Antarctica and the Southern Ocean in response to research and policy-driven needs.

- Ensure that all Antarctica InSync data and resulting knowledge are provided in an open access, shared, and discoverable manner (FAIR principles), for enhancing collaborative Southern Ocean science and infrastructure towards IPY, setting up processes for co-designed and co-delivered knowledge for policy, decision-making and sustainable management.

- Advancing our knowledge and closing fundamental research gaps on the role of the Southern Ocean and Antarctica in the Earth system and its response to climate change by collecting year-round and circumpolar observations and improving model simulations.

Antarctica InSync’s Scientific vision



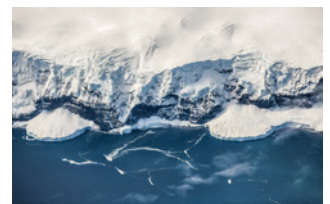
Southern Ocean heat, fresh-water, and carbon budgets and their response to climate change



Improving knowledge and protection of the unique Antarctic life from land into the deep sea



Rapid sea ice decline and its interdisciplinary consequences



Anthropogenic signatures in Antarctica: the race against pollution and other pressures



Aerosol-cloud interactions and radiative feedbacks

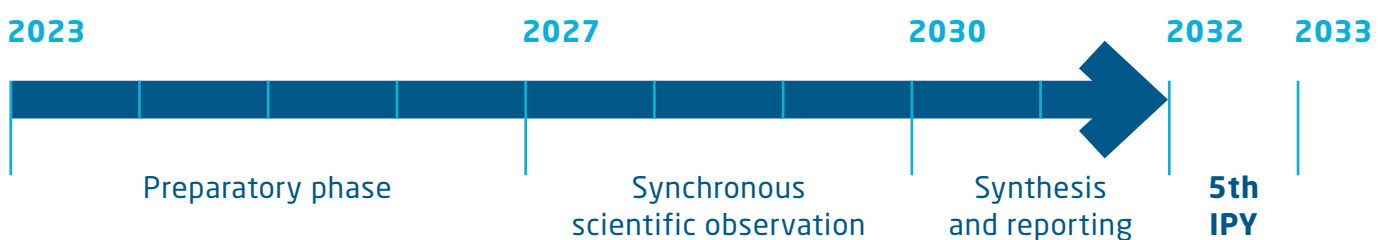


Melting ice shelves and coastal impacts



Variability, extremes, and tipping points in a changing Antarctic climate

Antarctica InSync timeline



Get involved

Help to shape the programme, and contribute. More information about Antarctica InSync:
Web: www.antarctica-insync.org | Mail: info@antarctica-insync.org

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