INITIAL CONCEPT NOTE
OCTOBER 2023

International Polar Year 2032–33

Why an International Polar Year in 2032–33?

This is a critical decade for people and the planet. Extreme weather, rising temperatures, rising sea levels, and devastating events such as droughts, floods, wildfires, marine warming, ocean acidification, and record lows in sea ice extent are becoming ever more prevalent, affecting ecosystems, economies, and human wellbeing around the world. Many changes are taking shape faster than previously predicted, and as the IPCC 6th Assessment Report made clear, many of the most serious consequences are linked to unprecedented changes in the Arctic and Antarctic. The urgency of understanding the consequences of such rapid change in the polar regions for global climate, biodiversity and human societies is now clear and has never been greater.


Ilona Mettiäinen

A 5th International Polar Year (IPY) will provide a vital opportunity to close outstanding major knowledge gaps through targeted attention and globally-coordinated action enabling polar researchers, knowledge holders, rights holders and stakeholders to achieve major breakthroughs in the knowledge required to protect the global environment, develop effective national and local strategies to mitigate and adapt to environmental changes, and accelerate progress towards achieving the UN Sustainable Development Goals.

Danilo Petrocelli

A crucial new phase in a 150-year-old process

The 5th IPY (2032-33) will bring the longstanding tradition of organising regular IPYs to an era of unprecedented need for large-scale coordinated research on polar and global changes. It will build on four groundbreaking IPYs between 1883 and 2008, which together form a 150-year-long chain of credible scientific evidence regarding changes to the cryosphere, oceans, atmosphere, landscapes and people living in the polar regions. The rate of change, especially in the polar regions, has been increasing rapidly over the last few decades. At the same time, the majority of the global climate tipping point elements are at the poles. By 2032 or even before we may be crossing tipping points in the Earth's System that will cause irreversible environmental changes in the polar regions and around the globe, with dramatic consequences for all life on Earth. Consequently, a shorter (25-year) interval for coordination of a 5th IPY is essential.

The 5th IPY will foster vital cooperation among countries, disciplines, programmes, and knowledge systems to produce urgently needed actionable information to support evidence-based z challenges. It will build directly on the legacy of the 4th IPY (2007-08), which drew together evidence from thousands of polar scientists and others emphasising that what happens at the poles has global impacts. It also generated an impetus in polar science communication, education, and public engagement.

The 5th IPY will:

- Allow researchers and knowledge holders to capitalise on the outcomes of previous IPYs by expanding integrated and coordinated observations of accelerating changes, and long-term monitoring required to understand current conditions and inform predictions of future states;
- Provide a comprehensive assessment of the operation and evolution of polar ecosystems enabling a more holistic understanding of the Earth's interconnected systems and climate change trajectory, as well as supporting practical global and local adaptation solutions.
- Build on the methodological, technological, and epistemological advancements of the 4th IPY, including major shifts toward working across knowledge systems;
- achieve a step-change in transdisciplinary polar research through meaningful integration of natural sciences, social sciences, humanities research, and Indigenous knowledge systems.

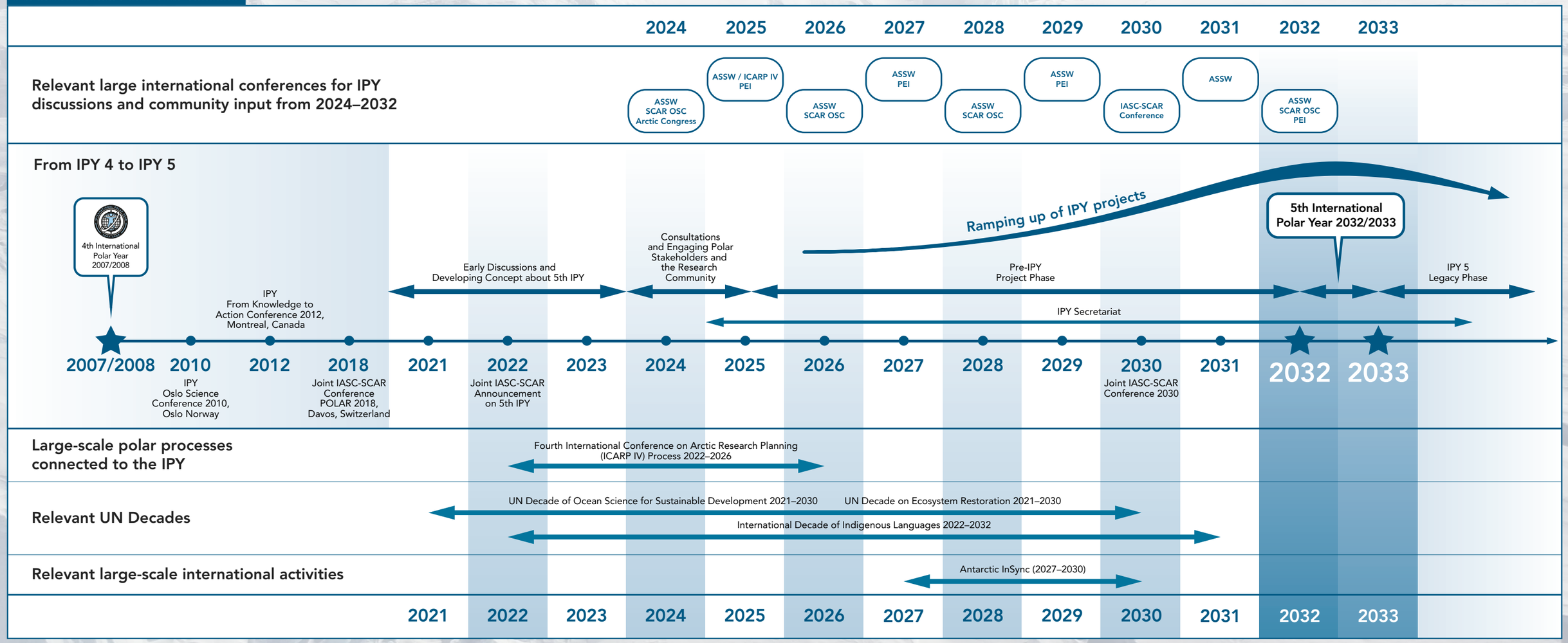
The urgency of undertaking the 5th IPY in 2032-33 is underscored by recent international developments and commitments, from the 2023 Helsinki Declaration on Climate Change and Antarctica adopted by the Antarctic Treaty Consultative Meeting, and the 4th International Conference on Arctic Research Planning Process (ICARP IV), to the UN Decades of Ocean Science, Ecosystem Restoration, and Indigenous Languages. The 5th IPY will leverage these and other initiatives, which together highlight the need for greater international coordination to provide the credible scientific evidence needed for effective decision-making on urgent local to global issues.

Guided by a broad set of principles

The 5th IPY will be guided by a broad set of principles, including:

- Fostering international collaboration;
- Encouraging open data and open science;
- Striving for holistic, systemic, transdisciplinary research approaches;
- Producing knowledge for action with direct societal relevance;
- Co-producing policy-relevant knowledge and research and engaging with decision makers;
- Including rights holders, stakeholders, and civil society in research processes;
- Committing to inclusive, diverse, and equitable research practices;
- Encouraging effective science communication, polar education, and public engagement
- Ensuring balanced involvement and information flow, areas of common interest and knowledge exchange across Arctic and Antarctic polar science communities and networks
- Co-designing research programs and co-producing knowledge across knowledge systems, with particular focus on meaningful partnership between academic research and Indigenous knowledge holders; while making sure that the programs are building Arctic Indigenous Peoples' capacity to contribute and participate in a constructive way; and
- Engaging in capacity building for early-career and previously unrelated disciplinary researchers and knowledge holders.

5th International Polar Year Timeline



Co-creating societal impacts and benefits

The 5th IPY has at its core a commitment to meaningfully involve and benefit a wide range of stake- and rightsholder groups, including scientists, decision makers, local communities, educators, youth, global publics, industry, and especially Indigenous Peoples in the Arctic. Among its key impacts will be the generation of new knowledge with direct societal and policy relevance, to inform decision-making for communities in the polar regions and around the globe.

IPY projects will create and strengthen meaningful partnerships between scientists, academic institutions, educators, Indigenous Peoples, polar stakeholders, and relevant organisations through co-design of research projects and co-production of knowledge. A focus on capacity-building will advance polar research as an inclusive, diverse, and equitable undertaking through engagement with under-represented groups, youth engagement and support to early career researchers and polar educators. Extensive education and outreach activities will raise public awareness of the global importance of the polar regions, helping to garner support for knowledge-based solutions and for polar research itself. The IPY will strengthen international coordination and collaboration between all nations, toward a common purpose for the greater good, enabling the global polar research community to achieve together what no single nation can achieve alone.

Moving forward together

The 5th IPY is envisioned as a highly coordinated international, multi-year activity with three distinct phases: a preparatory planning phase (2021-25); a project phase (2026-33) including the IPY itself (2032-33); and a legacy phase (2033+).

1. The preparatory planning phase began in 2021 via conceptual discussions among several polar research organisations and Arctic Indigenous Peoples organisations, fostering meaningful engagement and coordination between all participants who will be vital to the success of this IPY. From 2023-25, a period of broad consultations will be carried out to understand the needs of the relevant stakeholders, refine planning documents and to co-develop timelines, priorities, and ambitions.

2. The IPY project phase will start around 2026 with a gradual ramping-up of IPY projects and a clear two- year peak of intensive polar fieldwork and analysis activities during the 5th IPY itself in 2032-33. Two years are needed for the IPY in order to study both poles and conduct relevant field seasons. The project phase will overlap with key polar research events including a joint IASC-SCAR Conference and APECS World Summit in 2030, and will engage closely with related regional and global efforts such as the Fourth International Conference on Arctic Research Planning process (ICARP IV), the Antarctic InSync initiative, and relevant UN Decades.
3. A legacy phase beyond 2033 will fully exploit the data collected during the 5th IPY. This will involve analysis and synthesis activities, with a focus on knowledge transfer, reporting, and establishment of supporting frameworks for legacy outcomes.

Organisations currently involved in the IPY Planning Group

APECS Association of Polar Early Career Scientists
ALEUT INTERNATIONAL ASSOCIATION
clic Climate and Cryosphere
EUROPEAN POLAR BOARD
IASC
IASSA INTERNATIONAL ARCTIC SOCIAL SCIENCES ASSOCIATION
Integrating Climate and Ecosystem Dynamics in the ICED
International Science Council
POLAR EDUCATORS INTERNATIONAL
SÁMIRÁÐÐI SAAMELAISNEUVOSTO SAMERÅDET СОЮЗ САМОВ SAAMI COUNCIL
SCAR Scientific Committee on Antarctic Research
SOOS SOUTHERN OCEAN OBSERVING SYSTEM
UArctic
World Meteorological Organization

More information

For more information and to provide feedback please contact the Secretariats of the International Arctic Science Committee (IASC) (info@iasc.info) and the Scientific Committee on Antarctic Research (SCAR) (info@scar.org).