



POLAR SYMPOSIUM **FROM ARCTIC TO ANTARCTIC**

Enabling the Legacy: Translating Polar Research into Action

25|27 FEBRUARY 2026
OCEANOGRAPHIC MUSEUM • MONACO

OUTCOME REPORT



SHORT SUMMARY

The third Monaco Polar Symposium *Enabling the Legacy: Translating Polar Research into Action* (25–27 February 2026) brought together 170 leading figures from polar science, policy, funding and governance, alongside representatives of Arctic Indigenous communities and organisations. Convened by the Prince Albert II of Monaco Foundation with the Scientific Committee on Antarctic Research (SCAR) and the International Arctic Science Committee (IASC), in collaboration with the Oceanographic Institute, Prince Albert I of Monaco Foundation, it was organised around a single principle: Research to Action.

This report is its analytical and operational synthesis. It sets out seven findings and ambitions for the Fifth International Polar Year (IPY5, 2032–2033), the financial architecture required to support them, seventeen flagship initiatives, grouped under five thematic pillars, to be implemented, and three cross-cutting levers on which their delivery depends. For each initiative, it identifies the actors involved and the first steps to be taken before 2032.

It closes with a call to action: the Prince Albert II of Monaco Foundation, SCAR and IASC invite all those who share the conviction that polar research must inform the decisions shaping our common future to join them as champions, funders or advocates of these seventeen initiatives.

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EXECUTIVE SUMMARY

RESEARCH TO ACTION

Why this report, why now?

From 25 to 27 February 2026, the third Monaco Polar Symposium *Enabling the Legacy: Translating Polar Research into Action*, brought together 170 participants spanning polar science, governance, conservation and finance, and from Arctic Indigenous communities and Indigenous Peoples' organisations.

Jointly organised by the Prince Albert II of Monaco Foundation, the Scientific Committee on Antarctic Research (SCAR) and the International Arctic Science Committee (IASC), in collaboration with the Oceanographic Institute, Prince Albert I of Monaco Foundation, this international event aimed to help prepare the Fifth International Polar Year (IPY5, 2032–2033). It was structured around the principle Research to Action: moving from

accumulated knowledge to coordinated decisions, sustainable funding, implementable initiatives and international action. The timing matters. IPY5 follows the fourth International Polar Year (IPY4) by 25 years: polar systems are changing faster than research can track, geopolitical pressures are weakening cooperation, and polar conditions increasingly shape coastlines, climate, food, water and infrastructure worldwide.

The Symposium's three workshops built on one another, progressing from findings and ambitions, through funding models, to flagship initiatives. A fourth part, developed after the event, identifies three cross-cutting levers required to translate these outcomes into action.

The report is not only a record of the event, but a roadmap for building the coalitions, mechanisms and financing frameworks required before 2032.

THE REPORT AT A GLANCE



THE EVENT

- 170 Participants
- 31 Countries & Territories
- 3 Workshops
- 1 Horizon: IPY5 2032–2033



THE RESULTS

- 7 Findings & Ambitions
- 5 Funding Models
- 17 Flagship Initiatives



THE ANALYSIS

- 5 Pillars Of Action
- 3 Cross-Cutting Levers
- Towards Coordinated Global Action

EXECUTIVE SUMMARY

7 FINDINGS & AMBITIONS SHAPING IPY5 • PART I

1 PLANETARY RISK

Polar change is already reshaping planetary risk, requiring sustained observation and modelling

Rapid changes at both poles are altering sea level, ocean circulation, weather and ecosystems worldwide. Some models indicate potential sea level rise of up to 2.5 metres by 2100, while major observational and modelling gaps remain — gaps that only decades of continuous, coordinated measurement can close.

AMBITION FOR IPY5 Protect continuous bipolar observation and convert uncertainty into decision-ready risk information.

2 COOPERATION PRESSURE

Scientific cooperation endures, but needs active protection

Geopolitical fragmentation is opening gaps in polar data and participation. Yet the Antarctic Treaty System and Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) continue to function, as do the Arctic Council and the Central Arctic Ocean fisheries agreement — showing that established institutions and open science remain a basis for cooperation at both poles.

AMBITION FOR IPY5 Maintain scientific channels, shared data and political investment before further ruptures.

3 RIGHTS AND CO-LEADERSHIP

Indigenous Peoples' rights and Knowledge must shape IPY5

Indigenous Knowledge is a co-equal, autonomous evidence base; Indigenous Peoples are rights holders and central actors in the polar future, whose sovereignty over the production and ownership of knowledge is a scientific prerequisite in its own right. IPY5 must institutionalise the standard set at ICARP IV: co-production from the formulation of research questions onwards.

AMBITION FOR IPY5 Institutionalise co-leadership, fund participation at its real cost and protect knowledge sovereignty.

4 GOVERNANCE GAP

Conservation governance must be strengthened across both poles

The Antarctic has durable multilateral instruments, but their coordination and political resilience need reinforcement. The Arctic has no equivalent conservation treaty; sectoral agreements and Indigenous Peoples' governance offer foundations, while co-management and a unified protection framework remain incomplete.

AMBITION FOR IPY5 Strengthen Antarctic mechanisms and build an Arctic architecture suited to regional realities.

5 FUNDING MISMATCH

Polar funding architecture must be reformed for IPY5

Three- to five-year grants cannot sustain decadal observations, infrastructure, continuous modelling or expertise. Fragmented national programmes, unequal access and the lack of a permanent multinational coordinating body leave implementation underfunded.

AMBITION FOR IPY5 Finance continuity, coordination and application, not only short-term research projects.

6 TRUST DEFICIT

Trust in science determines whether evidence can influence political action

Science denial and politicisation weaken funding, public support and policy uptake. Permanent science-mediation capacity is needed to translate uncertainty into audience-specific risk parameters without overstating certainty.

AMBITION FOR IPY5 Treat trust-building and professional translation as programme infrastructure.

7 GLOBAL INFRASTRUCTURE

IPY5 must build a global governance infrastructure, not another scientific campaign

IPY4 expanded research but left gaps in data management, resources and links to decision-makers. IPY5 must move from studying the poles to governing shared risks through protected observations, interoperable data, durable institutions and a bipolar policy interface.

AMBITION FOR IPY5 Build the operating architecture before IPY5 begins.

Together, the seven findings & ambitions point to one requirement: polar science must be treated as an operating component of planetary security, international cooperation and global governance.

EXECUTIVE SUMMARY

5 FUNDING MODELS FOR IPY5 · PART II

Complementary components of one architecture, not mutually exclusive choices.

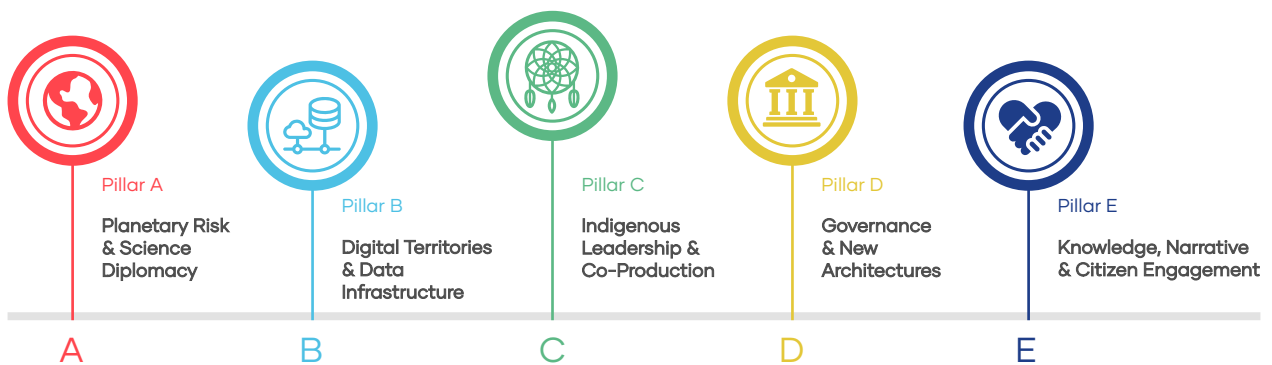
1	MECHANISM	STRATEGIC VALUE	CONDITION FOR SUCCESS
Progressive funding: from pilot to programme	Fund national pilots, scale the strongest through transnational collaboration, and redirect high-quality unfunded proposals to alternative funders.	Creates a credible route from experiment to durable programme.	Transparent selection and continuity between stages.
2	MECHANISM	STRATEGIC VALUE	CONDITION FOR SUCCESS
Polar Horizon: dedicated funding instrument	Pool public and private resources through shared criteria, multinational consortia, common peer review and multi-year cycles insulated from national politics.	Aligns programmes and reduces fragmentation.	Neutral governance and rigorous independent review.
3	MECHANISM	STRATEGIC VALUE	CONDITION FOR SUCCESS
Blended finance: hybrid architecture	Combine public, philanthropic, industrial and insurance-sector contributions around agreed priorities.	Broadens the capital base and connects funding to direct risk exposure.	Ethical governance, transparency, scientific independence and no substitution for public funding.
4	MECHANISM	STRATEGIC VALUE	CONDITION FOR SUCCESS
Building on existing frameworks	Use existing routes, including the high-seas biodiversity agreement, World Meteorological Organisation-style membership funding and future European frameworks.	Can advance faster than creating a new framework.	Early alignment of mandates, criteria and budget cycles.
5	MECHANISM	STRATEGIC VALUE	CONDITION FOR SUCCESS
Non-traditional actors: broadening the base of support	Engage coastal cities, reinsurers, space agencies, polar tourism and corporate philanthropy, while building broader public and political support.	Extends support beyond traditional research agencies.	Partnership-specific safeguards, a clear link to durable funding rather than visibility alone, and a framing of polar science in terms of concrete risks.

The problem is not funding volume alone, but duration, fragmentation, accessibility and the absence of trusted intermediaries between science, finance and decision-making. **These funding models will only converge into action if held together by a shared architecture: a dedicated coordination instrument, carried by a trusted intermediary, aligning criteria, cycles and contributions under a common scientific mandate. Public funding remains the essential base.**

EXECUTIVE SUMMARY

17 FLAGSHIP INITIATIVES ACROSS 5 PILLARS OF ACTION - PART III • 1/2

Developed through the workshop process, the seventeen initiatives form an interdependent portfolio, not a list of confirmed projects or a single maturity pipeline. They connect observation, data, Indigenous co-production, governance, education, citizen engagement and reformed funding — each strengthening the reach of the whole. Readiness varies: some require further design and coalition-building; others identify near-term steps.



Initiative 1
Reducing Uncertainties Around Sea Level Rise from Antarctica
Coordinate Antarctic interior observations and modelling to narrow projections for coastal planning.

Initiative 2
Poles to Coasts
Translate polar ice-loss projections into locally usable information for exposed coasts and communities.



Converts bipolar science into risk intelligence, adaptation tools and diplomatic cooperation.

Initiative 3
Ocean Stability & Planetary Health Under Bipolar Pressure
Connect bipolar ocean dynamics to ecosystem, food-security, health and blue-economy decisions.

Initiative 4
Polar Early Warning System for Global Action
Integrate critical polar signals into an anticipatory system for coordinated global response.

Initiative 5
Polar Knowledge for All: An AI-Compatible Inventory
Create an open, rights-aware inventory linking science, Indigenous Knowledge and citizen observations.

Initiative 6
AI for IPY5: The Polar Twin
Develop ethically governed artificial intelligence tools for interoperable analysis of bipolar observations.



Builds ethical, interoperable infrastructure linking observation, modelling, knowledge and public understanding.

Initiative 7
Antarctic Digital Twin: A Public Engagement Tool
Translate Antarctic data into an interactive public model of planetary consequences.

EXECUTIVE SUMMARY

17 FLAGSHIP INITIATIVES ACROSS 5 PILLARS OF ACTION - PART III • 2/2

Initiative 8

Pan-Arctic Community Research: Methodological Co-Production of Knowledge

Establish rights-based methods for research questions, protocols and outputs co-produced with communities.

Initiative 9

Pan-Arctic Community Observation Network: Sustained Community-Led Monitoring

Build community-led monitoring that strengthens climate models, territorial safety and local decisions.



Makes Indigenous rights, Knowledge and authority structural to research, monitoring and governance.

Initiative 10

Indigenous Peoples' IPY5 Secretariat

Create a recognised mechanism safeguarding Indigenous Peoples' rights, co-leadership, funding access and accountability within IPY5.

Initiative 11

Antarctic Conservation: Ross Sea MPA and Circumpolar MPA network

Coordinate science for Ross Sea renewal and a wider circumpolar marine protected area network.

Initiative 12

Science Diplomacy & Bipolar Governance: Towards an Integrated Framework

Create a permanent mechanism to link bipolar scientific cooperation, diplomacy and international decision-making across geopolitical divides.



Builds conservation, diplomatic and financing arrangements that endure beyond project cycles.

Initiative 13

Polar Science Funders-Investors Summit

Establish a permanent forum convening public, philanthropic, private and Indigenous funders to co-design ethical and durable blended financing.

Initiative 14

Permanent Polar Funding Architecture

Create mechanisms for sustained funding, project matching, early-career support and safeguards for scientific independence.

Initiative 15

Putting a Human Face on Polar Change

Connect evidence with lived polar experience to strengthen trust and public understanding.

Initiative 16

IPY5 Education Programme: Towards a Global Polar Culture

Embed polar science in education systems, building informed planetary responsibility.



Strengthens trust, learning and participation to sustain political and social support.

Initiative 17

Global Citizenship for the Poles

Co-create citizen science with Indigenous Peoples and northern communities to monitor polar change and mobilise the general public.



EXECUTIVE SUMMARY

THREE CROSS-CUTTING LEVERS OF TRANSFORMATION - PART IV

The initiatives can deliver only if 3 cross-cutting levers shape the entire portfolio from design through implementation.

3 CROSS-CUTTING LEVERS

IPY5 COORDINATED ACTION

1

Recognise Shared Responsibilities for the Polar Regions

Polar dynamics affect every continent: IPY5 must adopt a bipolar, planetary frame linking polar evidence to adaptation, infrastructure, conservation, security and global governance, while involving the most exposed nations and communities in priorities, financing and decisions.

2

Build the Architecture of Transformation

IPY5 requires permanent, ethically governed structures that connect scientific priorities with finance and policy and carry promising initiatives from early-stage development to sustained implementation. They must be designed, tested and resourced during 2026-2032, not deferred to IPY5.

3

Make Equity and Inclusion Conditions of Legitimacy and Effectiveness

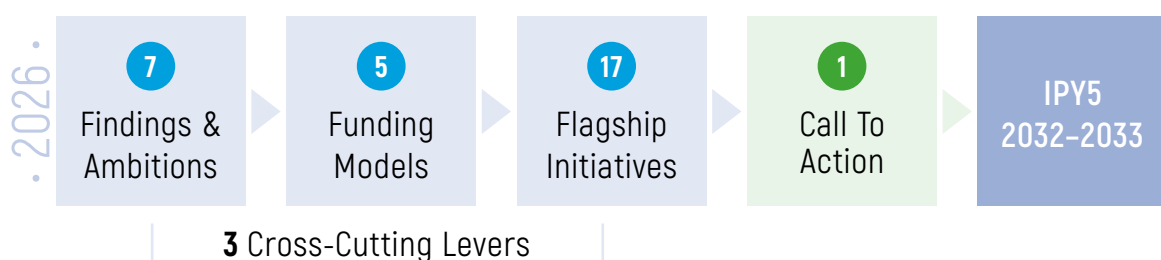
Equity and inclusion are conditions of scientific quality and delivery, not a parallel inclusion agenda. Indigenous Peoples as rights holders and co-architects, the Global South, early-career researchers and citizens as co-producers: participation must begin early, be compensated, institutionally protected and linked to accountability.

THE 2026-2032 WINDOW FOR ACTION

The importance of the poles no longer requires demonstration. The decision is whether the 2026-2032 window will convert knowledge into durable institutions, accessible finance and verifiable decisions, so that IPY5 can begin with its delivery coalitions and operating mechanisms already in place rather than spend its opening years creating them. The International Geophysical Year of 1957-58 showed that a major scientific gathering could give rise to a lasting legal architecture; IPY5 unfolds in a more constrained context and carries a planetary responsibility of an altogether different magnitude.

This report goes beyond taking stock: it sets out an operational architecture at the confluence of science, finance and policy, and identifies the first steps for setting it in motion.

With this contribution, the Prince Albert II of Monaco Foundation, SCAR and IASC issue a Call to Action, inviting all those who share the conviction that polar science must inform the decisions shaping our common future to become champions, funders or advocates for the seventeen initiatives at its core.



OVERVIEW

RESEARCH TO ACTION: PREPARING THE FIFTH INTERNATIONAL POLAR YEAR



The third Monaco Polar Symposium *Enabling the Legacy: Translating Polar Research into Action* (25–27 February 2026) was organised by the Prince Albert II of Monaco Foundation with the Scientific Committee on Antarctic Research (SCAR) and the International Arctic Science Committee (IASC), in collaboration with the Oceanographic Institute, Prince Albert I of Monaco Foundation. It brought together 170 leading figures from polar science, policy, funding and governance to help prepare the Fifth International Polar Year (IPY5, 2032–2033).

This report provides an analytical and operational synthesis of the Symposium. Its guiding principle, Research to Action, reflects a shared objective: to translate the scientific, Indigenous and place-based knowledge of the polar regions into coordinated decisions, sustained funding and international action. This ambition shaped the design of the event. The Symposium was organised as a progressive and cumulative working process, building on existing international efforts. All participants contributed through three connected thematic sessions, each combining a plenary panel with a workshop, across disciplines, sectors and perspectives from

the Arctic to the Antarctic. That range included representatives of Arctic Indigenous communities, whose contribution shaped both the diagnosis and the initiatives that emerged from it.

The first session “International Collaboration in Times of Uncertainties” used scenario-based discussions to examine how international polar collaboration could evolve towards 2032. It brought about the diagnosis and identified the main challenges, opportunities and strategic priorities to strengthen the resilience of international polar cooperation.

The second session “Funding Innovation, Equity & New Models” assessed these priorities from a funding perspective and considered under what conditions they could become credible and fundable at the required scale.

The third session “Research to Action: Flagship Initiatives & Implementation” translated the strategic and financial discussions into concrete flagship initiatives, including their proposed objectives, governance, funding logic and first steps.

OVERVIEW

RESEARCH TO ACTION: PREPARING THE FIFTH INTERNATIONAL POLAR YEAR

This structure was intentional: each workshop was designed to provide the foundations for the next. Together, the three sessions moved from understanding what needed to be addressed, to identifying how it could be supported, and finally to defining what could be taken forward. The report follows this progression.

Part I presents seven findings and ambitions for IPY5. The poles are changing faster than research and modelling capacities can fully capture. These changes affect sea level, climate regulation and biodiversity far beyond the circumpolar regions. Addressing them requires sustained research and observation over long timescales. Built over more than a century, international scientific cooperation is under growing geopolitical pressure. Existing institutional architectures continue to provide an irreplaceable foundation, but they require active political and financial support. The report further highlights the need to recognise Indigenous Peoples as rights holders and co-designers of research; to strengthen polar conservation and governance frameworks in the Arctic and Antarctic; and in the face of climate denial to rebuild trust in science as a basis for public decision-making. Scheduled only twenty-five years after IPY4, IPY5 represents a decisive opportunity to reinforce the role of polar science: a core component of planetary security.

Part II examines the financial architecture required to support this ambition and the conditions needed to scale up action towards IPY5. Current funding cycles are often too short for long-term observations and remain fragmented across national programmes and institutions. Few mechanisms enable successful pilot projects to develop into sustained programmes.

Potential sources of capital exist, but stronger links are needed between scientific priorities and public, philanthropic and private funders, including development banks, reinsurers and coastal cities whose decisions depend on a better understanding of polar risks. The report presents seven shifts in practice, involving both researchers and funders, and five funding models capable of aligning different sources of support around shared priorities and longer periods. All rest on ethical frameworks and equity of access, without which no coalition of this scale can be built.

Part III, at the heart of the report, makes its most direct contribution to the transition from Research to Action. It presents seventeen flagship initiatives, developed through the workshop process and a collective effort drawing on expertise from across the polar community. The initiatives are grouped under five thematic pillars: planetary risk and science diplomacy; digital territories and data infrastructure; Indigenous leadership and co-production; governance and new architectures; and knowledge, narrative and citizen engagement.

These initiatives open up novel and ambitious avenues for action. Rather than standing side by side, they form an interconnected system in which open data, co-produced knowledge and reformed funding strengthen the reach of the whole. For each initiative, the report outlines its rationale, the actors involved and the first steps towards implementation. This is what distinguishes it from the assessments that preceded it: by mapping out the stages of action, it sets out to offer solutions.

Part IV, an analysis of the levers of transformation, was developed after the event, during the preparation of the report. It connects the findings, funding pathways and initiatives through three cross-cutting imperatives: recognising shared responsibilities for the polar regions; building an architecture that connects science, finance and policy; and ensuring equity and inclusion as conditions of legitimacy and effectiveness. This includes recognising Indigenous Peoples and the Global South as rights holders, co-architects and co-producers of research, and the general public as a full participant in the production of knowledge.

This report could have confined itself to documenting the polar crisis. It goes further by setting out a structured response and identifying the conditions required to move it forward. Such a response will depend on sustained collective engagement. The Prince Albert II of Monaco Foundation, SCAR and IASC therefore invite those who share the conviction that polar science must inform the decisions shaping our common future to join them as partners, funders and advocates for the initiatives presented here.

FRAMEWORK AND MANDATE OF THE SYMPOSIUM

OPENING ADDRESSES

A Shared Call for the Next International Polar Year

The Monaco Polar Symposium 2026 brought together researchers, funders, diplomats, and representatives of Arctic Indigenous communities and Indigenous Peoples' organisations around a single mandate: to move from Research to Action. Rather than a succession of presentations, it was organised as a cumulative working process in which all participants contributed to three connected workshops. This collaborative and inclusive approach, applied at every stage, from the diagnosis to the formulation of the flagship initiatives, was itself part of the method: the Symposium set out to apply the standard of co-production that this report calls for.



CYRIL GOMEZ

Chief Operating Officer
of the Oceanographic Institute,
Prince Albert I of Monaco Foundation



ROMAIN CIARLET

Vice-Chairman & CEO of the
Prince Albert II of Monaco Foundation

Cyril Gomez opened the session by setting the framework for the Symposium: «Work on the ocean can't be dissociated from work on the poles.» The Symposium's objective, he clarified, is not to multiply scientific exchanges but to transform dialogue into concrete action perspectives.

Romain Ciarlet highlighted a qualitative shift in the perception of polar regions: long kept at the margins of major international debates, they now stand at the intersection of converging security, economic and environmental crises. The challenge is not to produce more knowledge, but to mobilise actors capable of allocating funding and coordinating actions at a global scale — integrating Indigenous Peoples' perspectives and broadening the funding base to philanthropic and private actors, still a minority in the polar funding landscape (approximately 10% of total resources). The Foundation intends to support large-scale, coordinated polar research directly informed by science.

FRAMEWORK AND MANDATE OF THE SYMPOSIUM

OPENING ADDRESSES



HENRY BURGESS
President of IASC



GARY WILSON
President of SCAR

Henry Burgess named directly the threats weighing on international collaborative research — isolationism, climate denial, disparagement of scientists — before refusing to treat them as inevitable. The absence of Russian colleagues, he noted, is not a minor detail: it deprives the scientific community of an irreplaceable fraction of Arctic data. Concrete initiatives nonetheless testify to the maintenance of engagement dynamics: Arctic Ocean 2050 (Norwegian investment), Antarctica inSYNC, Arctic Pulse (Canada), the future Japanese icebreaker dedicated to international collaboration. IPY5 offers the mandate to carry and amplify these efforts. His conclusion resonated as an invitation as much as a challenge: «If you believe that science should speak truth to power, then IPY5 is for you. This is your IPY for the future.»

Gary Wilson reinforced these messages by positioning IPY5 as an active counterforce to fragmentation. Climate change is accelerating at the poles more rapidly than ever. «We are knocking on the door of 5°C warming», he stated. Biodiversity is under severe pressure, and the world is responding with a rise in nationalist approaches that undermine precisely the coordinated science that the situation demands. Faced with this, IPY5 cannot simply produce knowledge: «We can't just be scientists. We must be scientists and politicians and economists and humanists in how we approach this.» Gary Wilson outlined the key elements of the legacy that IPY5 must leave: science leading to action, evidence-based narratives capable of rebuilding trust in science, the elevation of Indigenous Peoples' voices, intergenerational renewal of practitioners — «It is an intergenerational challenge that requires new approaches» — and a genuinely global and interdisciplinary collaborative effort.

FRAMEWORK AND MANDATE OF THE SYMPOSIUM

LESSONS FROM IPY4, VISION FOR IPY5

IPY4 (2007–2009) placed climate change at the heart of international polar research, driving an unprecedented expansion of international scientific collaboration, the establishment of new observation networks, greater recognition of Indigenous Peoples' knowledge and investment in the next generation of researchers. It predated the Paris Agreement, growing recognition of polar tipping points, and the increased global focus on climate risk and Earth system change. In 2019, the IPCC Special Report on the Ocean and Cryosphere nonetheless sounded the alarm: significant gaps remained in the understanding of cryospheric systems (e.g., insufficient long-term sampling, incomplete winter data), limiting the precision of climate projections. While IPY4 facilitated the deployment of high-level observational science in polar regions, IPY5 operates in a different world: closer to thresholds, more aware of institutional fragility, and confronted with an unprecedented responsibility. The task therefore goes beyond intensive polar research: it is to contribute to the governance of shared global responsibilities in the Arctic and the Antarctic.

The Monaco Polar Symposium 2026 drew on an honest assessment of the shortcomings of IPY4 to identify three complementary themes for IPY5: mobilising the resources necessary for action, building a more inclusive polar science community, and strengthening science diplomacy and international cooperation in an increasingly fragmented world.

«We were not thinking enough about policy», observes **Dr Olav Orheim** (Member, Scientific and Technical Committee, Prince Albert II of Monaco Foundation; Former Director, Norwegian Polar Institute), drawing on his experience in the planning of IPY4. Among its achievements he highlighted an unprecedented expansion of polar research, the establishment of new research centres, and broader international participation. At the same time, he pointed to shortcomings in data management, to an underestimation of the time and resources needed to translate research into action, and to a persistent disconnect between science and policy. Despite these challenges, he stressed that science is inherently international and argued that IPY5 should strengthen the resilience of international scientific cooperation amid growing geopolitical uncertainty: «Science is transnational, the challenge is making science and its pathways robust enough to handle obstacles.»

Prof. Dalee Sambo Dorough (Adviser, University of Alaska Anchorage; Co-Chair, ICARP IV) broadened the discussion beyond the representation of Indigenous Peoples, noting that the ICARP IV process (2022–2026) was not simply about increasing their participation in polar science. She emphasised that the rights of Indigenous Peoples must be embedded in the institutional architecture of polar science: «*Our ancestral knowledge is now recognised in international law*». For IPY5, she argued that genuine co-production with Indigenous Knowledge holders should become the standard: supporting a network of Indigenous researchers in the circumpolar North and ensuring the presence of decisive Indigenous voices in international scientific bodies.

This implies engaging shared methodology and accountability, developing new approaches to equity, and removing barriers to funding community-led research. She grounded these principles in evidence and lived experience. Circumpolar Indigenous Peoples have long shown their capacity to navigate disruptions, whether geopolitical, climatic or institutional. This resilience is a resource on which states and international scientific bodies can draw.

«We are living proof that we are adaptable — we are still here. Our capacity for adaptation, our geopolitical resilience, our anticipatory resilience: these are real. Indigenous ways of communicating and relating can help nation states move forward»

Prof. Dalee Sambo Dorough

Dr Salvatore Aricò (Chief Executive Officer, International Science Council; Member, IPY5 Executive Committee) concluded on a note of caution: «*In an increasingly polarised and politicised landscape, uncertainty over treaties and agreements raises serious questions about whether IPY5 can be an effective follow-up to IPY4*». Faced with this reality, he argued that science diplomacy should be avowed as an explicit purpose of IPY5 — its «honest undercurrent», in his words — rather than left to operate as an unacknowledged by-product of scientific cooperation. He saw the current geopolitical context not only as a constraint but also as an opportunity to redefine the role of research: «IPY5 must walk the talk on transdisciplinary science — co-designing and co-producing knowledge that leads to real solutions and training the next generation of polar scientists to work across disciplines.» Making transdisciplinarity and co-production central to IPY5, he suggested, is also what will keep international cooperation effective under strain.

I. MAJOR FINDINGS AND AMBITIONS

Harnessing IPY5 to meet the challenges of our time



The first plenary presentation and the first scenario-based workshop, which brought together all Symposium participants, produced seven major findings and ambitions for IPY5. Together, they describe the key challenges facing the polar regions and the priorities for an effective international response. The poles are transforming at an unprecedented pace, with systemic effects reaching far beyond the circumpolar regions. In response, the international scientific community has deliberately shortened the interval between polar years: IPY5 is scheduled for 2032, twenty-five years after IPY4, whereas half a century separated the two preceding editions.

FINDING & AMBITION 1

Polar change is already reshaping planetary risk, requiring sustained observation and modelling

Polar regions are undergoing unprecedented environmental transformation at a pace that exceeds current research and modelling capacities, with systemic effects far beyond the circumpolar regions. IPY5 should provide the sustained and coordinated framework required to respond.

Climate change is accelerating at the poles at a rate that surpasses the projections of previous assessment cycles. In 2025, two early signals of atmospheric regime reconfiguration were documented: the weakening of the polar vortex¹ triggering Arctic air intrusions at unusual latitudes, and the occurrence of unprecedented heatwaves in Antarctica.

These events, formerly modelled as future scenarios, are now occurring. Polar science is no longer a regional concern: it is a central component of the planetary climate dashboard.

Sea level rise. The most recent projections presented at the Symposium exceed conventional risk analysis frameworks. Some state-of-the-art models (Robert DeConto, WCRP CliC) indicate a potential rise of up to 2.5 metres by 2100 and 15 metres by 2300 — exceeding the scenarios taken into account by standard assessment frameworks. Sixty-five metres of potential rise remain stored in the Greenland and Antarctic ice sheets combined. The frequency of historically centennial flooding is moving towards annual recurrence in certain coastal regions. The impacts affect billions of people, with a disproportionate burden on low-income coastal populations — raising climate justice issues that current scientific projections still struggle to fully quantify. The central scientific challenge remains an insufficient understanding of change processes in ice sheets, whose precise modelling remains elusive.

¹ System of high-altitude circumpolar winds that confines cold Arctic air around the pole in winter. When it weakens under the effect of Arctic warming, it deforms and allows glacial air masses to overflow towards mid-latitudes, producing paradoxical cold waves in Europe, North America or Asia.

I. MAJOR FINDINGS AND AMBITIONS

Harnessing IPY5 to meet the challenges of our time

Cryospheric feedbacks. The loss of albedo linked to the retreat of the Arctic sea ice constitutes one of the best-documented positive feedback mechanisms in the climate system: as icy, white expanses retreat, the darker ocean absorbs an increasing fraction of incident solar radiation, amplifying the warming that accelerates subsequent melting and feeds it in turn. This mechanism operates without natural brake within current temperature trajectories. The services provided by ice ecosystems (thermal regulation, carbon storage in permafrost, support of global food chains) cannot be replaced on the timescale of human decisions.

Biodiversity. Polar biodiversity losses are progressing in parallel with physical destabilisation. Direct observations document significant phenological disruptions: delayed hatching of penguin chicks in Antarctica, now recurring at multiple monitoring sites; proliferation of algal blooms of unusual colours on melting glaciers, indicators of rapid ecosystem reconfiguration. Conversely, the increase in cetacean populations in certain Antarctic areas signals a restructuring of food chains in ice-free zones — a restructuring whose cascade effects on global fisheries remain poorly modelled.



Poles-tropics connections. Polar dynamics directly influence tropical and subtropical climate systems through modifications to monsoon regimes, redistribution of oceanic heat, and disruption of precipitation regimes. Ongoing research (Jefferson Cardia Simões, Universidade Federal do Rio Grande do Sul) specifically documents connections between conditions in Antarctica and atmospheric moisture in the Amazon, and conversely the effects of Arctic changes on countries of the Global South. The cascade disruptions (fisheries, food security, water resources) directly affect Latin America, Africa and South Asia, and have repercussions on planetary equilibrium. Polar science is a science of global risk.

Observation and modelling gaps. The gaps documented by the 2019 IPCC Special Report have since been structured into a work programme. UNESCO (Anil Mishra, Head of the Hydrological

Systems, Climate Change and Adaptation Section) organised them around five strategic challenges within the Decade of Action for Cryospheric Sciences (2025–2034): improving observation networks and long-term data; understanding of cryospheric processes and their interactions; regional and global projections and modelling; assessing impacts and adaptation solutions; capacity-building and knowledge transfer.



Resolving these challenges requires sustained investment over several decades, which proves incompatible with current cyclical funding models. At the very moment when technological developments allow data to be shared more easily than ever (across languages, sectors and nations), disinvestment in polar research is accelerating in several national contexts (Antje Boetius, Monterey Bay Aquarium Research Institute, formerly Alfred Wegener Institute) — a striking paradox at a time when the climate events that science described as probable by 2050 are now contemporary.

The pace of physical change in polar regions invalidates past data as references for understanding the present and projecting the future. The statistical bases of risk assessments, coastal engineering standards and adaptation planning are being reconfigured in real time. This finding defines as a minimum requirement a sustained, continuous observation and modelling regime, directly connected to decisions with planetary impact — which current architectures are not able to provide.

«The ‘P’ in IPY5 is for Planet, not only for Poles.»

Prof. Robert DeConto, University of Massachusetts, WCRP CliC

«Deep uncertainty about sea level rise is the biggest priority to deal with. It impacts billions of people directly. Sustained observational and modelling efforts on a scale never seen before is needed — sustained being the key word. Not project-budget timelines.»

Prof. Robert DeConto, University of Massachusetts, WCRP CliC

«We are behind the curve in understanding climate change and the threats to humanity, and some of the biggest deserts of our knowledge are in the polar regions.»

Veryan Vere Hodge

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FINDING & AMBITION 2

Scientific cooperation endures, but needs active protection

International polar scientific cooperation is under structural geopolitical pressure. Existing institutional architectures have so far proved resilient, but that resilience cannot be assumed: IPY5 should help preserve and strengthen them.

International polar scientific cooperation operates in a context of geopolitical pressures without precedent since the end of the Cold War. Growing isolationism, the rise of nationalisms and the politicisation of research are creating operational conditions directly unfavourable to the collaborative science that polar regions demand. These tensions manifest concretely: the rupture linked to the invasion of Ukraine in 2022 produced the lowest Russian participation ever recorded in the history of Arctic scientific summits — while Russian data cover an irreplaceable fraction of the Arctic basin. The uncertainties of the new American administration weigh on the continuity of multilateral commitments. Attempts to appropriate Greenland have prompted calls from Arctic Indigenous Peoples to maintain the Arctic as a space of peace — a call that has generated expressions of solidarity from other communities and States.

These tensions create real functional gaps for Earth system science — without having caused existing institutional architectures of polar cooperation to yield. The Arctic Council continues to function. The agreement on the prevention of unregulated commercial fishing in the central Arctic Ocean — negotiated over ten years with nine States with divergent interests and incorporating provisions drawn from Indigenous Knowledge — remains in force. Ongoing international scientific programmes testify to the maintenance of engagement dynamics beyond diplomatic ruptures. The Antarctic Treaty model remains the most durable empirical demonstration that sustained multilateral cooperation is possible between nations with antagonistic interests. This model rests on a principle that the current context renders all the more precious: open science and transparency standards function there as active mechanisms for building trust — evidence that shared data can hold where diplomacy yields. Polar cooperation architectures have withstood current pressures — but their resistance says nothing about their capacity to absorb further ruptures. What sustains them is not their intrinsic solidity, but the ongoing political investment of those who make them work. IPY5 arrives at a moment when this investment is precisely being called into question in several of the nations that have historically been its pillars.



Prospective Diagnosis: Key Results of Workshop 1

The scenario work conducted by participants during Workshop 1 converges towards an unambiguous diagnosis: in the absence of deliberate structural action, the most probable scenario is neither the collapse of existing structures nor their spontaneous renewal, but the progression of a scientific cooperation advancing in silos, disconnected from the political decisions it should inform. The resilience of polar cooperation is not self-sustaining. Participants identified three critical conditions to avoid this drift: maintaining channels of scientific engagement with Russia, whose data are indispensable to any complete picture of the Arctic basin; material support for Indigenous Permanent Participants in international governance bodies; and explicit commitment from the EU and China in IPY5. The US presidency of the Arctic Council, which coincides with the preparation period for IPY5, was identified as a decisive political opportunity — whose outcome remains, at this stage, uncertain.

«Political will is a renewable resource.»

H.E. David Balton, Senior Fellow, Arctic Initiative, Harvard Kennedy School

«Open science and open data keep the system honest.»

Prof. Burcu Özsoy, TÜBİTAK Polar Research Institute, Vice-President of SCAR

«Science as a unifier in time of conflict — similar to the Convention on Long-range Transboundary Air Pollution (LRTAP)² role during the Cold War» — Workshop 1

² The Convention on Long-range Transboundary Air Pollution (1979) is the first multilateral environmental protection agreement in Europe, negotiated between Western and Eastern countries in the midst of the Cold War.

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FINDING & AMBITION 3

Indigenous Peoples' rights and Knowledge must shape IPY5

The inclusion of Indigenous Knowledge and Indigenous Peoples' co-leadership in international polar science remains insufficient. IPY5 should embed both in institutional practice as a core standard, recognising this as both a scientific and an ethical imperative.

The ICARP IV summit (2025, Colorado) hosted the largest gathering of Indigenous Peoples ever held within an Arctic scientific process — directly changing the direction and scope of international research. It anchored the rights of Indigenous Peoples in the architecture of polar science, on an explicit basis in international law: no longer a claim for participation, but a recognition of rights (Dalee Sambo Dorough, Co-Chair of ICARP IV). IPY4 had engaged more than a hundred Indigenous Knowledge holders in co-production processes; IPY5 is expected to operate on a significantly more ambitious scale.

Indigenous Knowledge is an autonomous and irreplaceable body of evidence on polar systems. It documents environmental changes (shifts in migratory behaviour, changes in seasonal cycles, sea-ice structure, permafrost degradation) at temporal and spatial resolutions that instrumental networks cannot reproduce. It is not an additional validation of Western science: it is co-equal to it, holding distinct and irreducible information. The sovereignty of Indigenous Peoples over the production and ownership of this knowledge is a scientific issue in its own right, not merely an ethical one. Indigenous Knowledge is not neutral; it carries obligations towards resources, ecosystems and intergenerational relationships. Scientific action, in this light, is not only the production of data and theories but a response to those obligations. This is a conception of co-production that nothing in conventional academic practice prepares researchers to grasp (Anita Lafferty, Aurora College).

Current structures nevertheless reproduce power imbalances: neither access to funding nor control over decisions matches the role Indigenous communities actually play (David Hik, Polar Knowledge Canada; Arctic Science Funders Forum). Prevailing funding models position Indigenous communities as consulted within processes designed by others, according to external methodologies — what Per-Henning Mathisen (Saami Council) calls a «colonialism of research funding.» The inclusion achieved thus far remains dependent on repeated advocacy — it is not institutionalised.

Genuinely meaningful participation faces documented systemic obstacles:

- Indigenous communities are included too late in research processes, after fundamental questions have been fixed by others;
- funding is channelled through institutional intermediaries that capture a share of resources and dilute the authority of Indigenous Peoples' organisations and institutions;
- young Indigenous researchers lack stable pathways towards scientific leadership;
- the real burden of participation (in time, personnel, resources and forgone subsistence activities) is neither recognised nor compensated.

The Symposium itself offers a limited but concrete test of these principles: Indigenous representatives took part not as consulted observers but as contributors to the formulation of priorities and initiatives, at the same stage as researchers and funders. The initiatives set out in Part III carry the mark of that involvement — a first step, at the scale of a single event, towards the standard this finding calls for.

During ICARP IV, co-production — defined as equity between Indigenous Knowledge and Western science, integrated from the formulation of questions onwards — was established as a founding eligibility criterion for all IPY5 initiatives. The standard now exists as a formal reference; its institutional implementation remains to be built.

«Meaningful co-design begins at the earliest stage — bringing together stakeholders, Indigenous Knowledge holders and researchers to optimise outputs and build shared governance, methodology and accountability.»

Dalee Sambo Dorough, Adviser, University of Alaska Anchorage;
Co-Chair, ICARP IV

“Indigenous communities are not peripheral to the future of the Arctic: they are the key.”

David Hik, Chief Scientist and Vice-President, Research, Polar Knowledge Canada; Chair, Arctic Science Funders Forum

“There is no such thing as a benevolent colonizer.”

Sara Olsvig, Chair, Inuit Circumpolar Council

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FINDING & AMBITION 4

Conservation governance must be strengthened across both poles

The conservation of polar regions rests on asymmetrical governance frameworks under pressure. IPY5 should strengthen proven multilateral mechanisms in the Antarctic and support more effective Arctic governance grounded in the rights and Knowledge of Indigenous Peoples.

The erosion of polar ecosystems documented alongside climate disruption — disrupted penguin phenology, signals of food chain restructuring, proliferation of algal blooms on melting glaciers — demands a conservation response that goes beyond scientific observation alone. It calls for governance frameworks capable of protecting polar environments within a context of simultaneous geopolitical, economic and technological pressures. Yet these frameworks, in the Antarctic as in the Arctic, face distinct challenges that require differentiated responses.

The Antarctic: a global reference framework, an institutional robustness to strengthen

The Antarctic Treaty and the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR Convention) constitute the most enduring collective protection instruments ever established for a polar region — and, as such, a model for the governance of planetary common spaces. Prof. Burcu Özsoy (TÜBİTAK Polar Research Institute, Vice-President of SCAR) recalled that their solidity rests on a founding principle: open science and data transparency are not declarative values, they are the structural condition that allows multilateral conservation instruments to traverse political cycles without fraying. Yet the fragmentation of funding and coordination in Antarctic conservation was identified as a significant structural problem. Ryan Dolan (Blue Nature Alliance) described the absence of a long-term governance authority protected from political interference and the dominance of any single State as a real vulnerability: without this type of architecture, conservation priorities are exposed to the competition of national interests. Two orientations emerged to address this. On the one hand, the establishment of guidelines framing private sector contributions by aligning them with priorities and ethical standards defined by SCAR. On the other hand, the elaboration of an Antarctic reference framework identifying priority protection issues and translating them into orientations intelligible to decision-makers and non-scientific actors — in the spirit of what planetary boundaries accomplished for global governance. Along similar lines, Thomas Stocker (University of Bern) formulated the ambition to integrate environmental protection into legally binding instruments.

The Arctic: Indigenous governance as an emerging paradigm for conservation

The Arctic does not have a conservation treaty equivalent to the Antarctic Treaty. This asymmetry reflects distinct political histories: whereas the Antarctic Treaty crystallised a founding consensus as early as 1959, the Arctic remains governed by the sovereignty of coastal States and sectoral agreements that often pull in different directions, without a unified protection framework. The Antarctic model was invoked at the Symposium as proof that multilateral cooperation between nations with antagonistic interests is possible — and as a source of inspiration for the construction of an Arctic equivalent in terms of scientific collaboration and, more broadly, shared governance of polar environments, in a form adapted to the geopolitical and human realities specific to the region.

The agreement on the prevention of unregulated commercial fishing in the central Arctic Ocean marks the first milestone of this architecture (it entails the implementation of precautionary conservation and management measures). H.E. David Balton (Harvard Kennedy School) cited it as the most compelling example of functional multilateral cooperation in the region, and its strengthening through a joint scientific research programme was identified as a priority lever. More broadly, the reform of Arctic Council governance — notably the formal equality of status between Indigenous Permanent Participants and member States — was formulated as a condition for equitable and operational governance.

Two categories of pressure weigh on Arctic ecosystems. Environmental impact assessments of extractive industries remain insufficiently shared with the scientific community, while the intensification of maritime traffic and prospects for deep-sea mining represent documented threats whose scientific monitoring consistently lags behind. Geoengineering forms a second category of risk: the unregulated deployment of climate system intervention solutions at the poles was identified as calling for a coordinated institutional position.

The involvement of Indigenous Peoples in the protection of Arctic environments is both an achievement and a direction to deepen. First exposed to the degradation of Arctic ecosystems, managers of territories whose surveillance they ensure on timescales that instrumental networks do not cover, Indigenous Peoples are full conservation actors — not parties consulted downstream of decisions made elsewhere. This achievement already finds expression in existing instruments: Indigenous Knowledge was notably integrated into the negotiation of the agreement on fishing in the central Arctic Ocean. But their effective co-management of long-term monitoring and protection systems has not yet found institutional translation proportionate to this role.

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Towards a bipolar ambition

It is within this dual reality (Antarctic frameworks to strengthen, Arctic framework to build) that several convergences that emerged at the Symposium towards a common approach to both regions take on their meaning. The Ross Sea Research Coordination Network (RCN), presented in plenary by Dr Cassandra Brooks (University of Colorado), embodies this logic: launched in 2025, this collaborative and interdisciplinary network brings together participants from twenty-two nations (scientists, decision-makers, conservation organisations, industry representatives and Indigenous partners) around an approach to conservation based on open science, shared data and collaboration with non-traditional partners. Dr Cassandra Brooks proposed extending this model from the Ross Sea to the entire Southern Ocean. The formulation «Two poles, one common future», advanced during the first Monaco Polar Symposium in 2022, expresses the same desire to move beyond the logic of two separate regions in favour of shared planetary responsibility. The Decade of Action for Cryospheric Sciences (UNESCO, 2025–2034), covering both regions, offers an existing UN framework for connecting these ambitions to international political processes.

Polar conservation has instruments whose value is established — but their formal solidity masks real vulnerabilities: fragmentation of funding and coordination in the Antarctic, absence in the Arctic of a conservation framework adapted to the pressures exerted there, growing extractive and technological threats in both regions. The most promising dynamics identified at the Symposium share a characteristic: they rest on governance rooted in open multinational science and non-conventional partnerships for the Antarctic, and in the rights, knowledge and practices of Indigenous Peoples for the Arctic. The shift from defensive conservation, centred on maintaining existing frameworks, to active conservation, equipped with robust institutional architectures fully involving Indigenous Peoples as effective co-managers, constitutes the central challenge that the polar community must address. This challenge is not only scientific: it is political, and its temporal window is that of the next six years.

«The agreement preventing commercial fishing in the central Arctic Ocean remains in force and embeds both Indigenous Knowledge and genuine multilateral cooperation.»

H.E. David Balton, Senior Fellow, Arctic Initiative, Harvard Kennedy School

«A robust long-term governance authority for Antarctica — protected from political interference and from the dominance of any single country.»

Ryan Dolan, Blue Nature Alliance

«IPY5 could build on cooperative science, open data, and interdisciplinary collaboration with non-traditional partners to enable meaningful conservation outcomes.»

Dr Cassandra Brooks, University of Colorado

FINDING & AMBITION 5

Polar funding architecture must be reformed for IPY5

Polar science funding models are ill-suited to the timescales and coordination that the cryospheric crisis demands. IPY5 should drive the reform of the financial architecture on which long-term action depends.

Funding cycles of three to five years cannot sustain the decadal observations that cryospheric science requires: long-term networks, heavy infrastructure (icebreakers, satellites, permanent stations), continuous modelling programmes. National boundaries are incompatible with the planetary scope of polar regions. Indigenous communities and researchers from the Global South remain durably excluded from the bodies that define priorities — producing a science that is as incomplete as it is inequitable.

The documented shortcomings of IPY4 find their origins in part in these constraints. Institutional sustainability beyond funding cycles remains an unresolved challenge: no independent entity endowed with stable multinational governance exists today to carry polar priorities over time.

The fragmentation between poorly coordinated national programmes is a governance problem in its own right, distinct from the total volume of available funding. The most natural potential funders remain largely absent: international reinsurers, multilateral development banks, executives of major coastal metropolises, all directly exposed to the consequences of polar transformations, have no institutional mechanism allowing them to direct resources towards polar science. Furthermore, the funding of implementation and impact — translating results into decisions and measurable community benefits — remains a deep and recurring gap in current models: project calls cover knowledge production, rarely its application.

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The reframing of polar regions as a global climate asset class is the most significant conceptual shift proposed at the Symposium on this question. If the Arctic sea ice is accounted for as an asset whose degradation represents a quantifiable financial loss, this logic also entails an accounting responsibility: institutions that fund activities producing cryospheric degradation bear a measurable asset loss. This reframing is not yet operational in current financial arrangements: it represents one of the conceptual levers that IPY5 has available to broaden the base of mobilisable funders.

Five structural criteria allow the gaps of any polar funding model to be identified and its relevance for IPY5 to be assessed:

- predictability and programmatic continuity for long-term observations;
- inclusivity and equity in access and decision-making;
- institutional stability beyond political cycles;
- active coordination between funders and national programmes;
- explicit funding of implementation and impact.

None of these five criteria is today fully satisfied in existing funding systems. This deficit is not cyclical — it is structural, documented since IPY4 and not corrected since. The reform of the financial architecture is not one condition among others for the effectiveness of IPY5: it is its prerequisite.

«Polar region is an asset class — same as water, we put it into asset class — so that it is valued as such in funding»

Dr Bapon Fakhrudin, Water Sector Lead, Green Climate Fund

FINDING & AMBITION 6

Trust in science determines whether evidence can influence political action

Science denial and the politicisation of polar research are rising. IPY5 should help rebuild trust in science, ground public narratives in evidence and reinforce the links between research, policy and society as conditions for effective action.

The rise of climate denial, the disparagement of scientists and the politicisation of polar research in several national contexts constitute direct operational conditions for IPY5 — not peripheral phenomena, but constraints that act on its very foundations.

They undermine funding, erode public support for scientific programmes and fuel the fragmentation of collective responses. This finding was formulated at the opening of the Symposium by Henry Burgess (IASC), who named climate denial and the discrediting of researchers as concrete threats to the collaborative research enterprise — on a par with the Russian absence.

Gary Wilson (SCAR) listed the production of evidence-based narratives, capable of rebuilding trust in science, among the objectives he set for the legacy of IPY5 — alongside scientific production, the elevation of Indigenous voices, or the intergenerational renewal of practitioners. This finding calls for a response that goes beyond institutional communication: a permanent professional capacity for scientific mediation, capable of translating modelling results and their uncertainty margins into language usable by decision-makers, of segmenting messages by audience, and of reframing deep uncertainty as risk management parameters. Rebuilding trust in science is not a communication objective: it is a condition of its political effectiveness.

Salvatore Aricò (International Science Council) formulated it clearly: science does not need a favourable political framework to produce knowledge; but it needs one for knowledge to generate impact. In a polarised environment, politicisation does not only constrain research from the outside, it erodes the scientific community's capacity to be heard, to inform decisions and to generate public support without which no climate policy holds.

The intergenerational dimension is inseparable from this finding. The polar challenge extends over several decades, and the current scientific community will not be the one that sees it through. Yet existing training structures do not prepare researchers to work in a transdisciplinary way, to cooperate with Indigenous Peoples, or to address decision-makers and non-scientific audiences. Trust in science is not an acquired prerequisite for political action — it is a resource that is actively eroding in the current context, and whose reconstruction demands institutional investments as concrete as those consented to for observation infrastructure or data systems. IPY5 is the moment to make it a priority in its own right.

«We want to see evidence-based narratives that develop trust in science.» Prof. Gary Wilson, SCAR

«Not just a soup of acronyms — we need people where the science feels human, star power.»

Workshop 1

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FINDING & AMBITION 7

IPY5 must build a global governance infrastructure, not another scientific campaign

Existing structures are not sufficient to translate polar science into decisions at planetary scale. IPY5 must be conceived not as another scientific campaign, but as a global governance infrastructure capable of carrying flagship initiatives commensurate with the risks now documented.

IPY4 (2007–2009) produced an unprecedented expansion of polar research. Its structural shortcomings are now documented — Olav Orheim (Norwegian Polar Institute) formulated them without ambiguity: failure in data management and archiving, chronic underestimation of necessary resources, structural disconnection from decision-makers. IPY4 was fundamentally a mobilisation of Studying the poles — producing knowledge about the poles. The Symposium converged on a shared diagnosis: this model is no longer sufficient. IPY5 is expected to operate on a different register: Governing polar and planetary interdependencies — translating knowledge into decisions and governance architectures with planetary-scale impact. This leap is not rhetorical: it translates a real pressure. Organised twenty-five years after IPY4, IPY5 carries within it a signal that urgency has made waiting untenable. The Symposium discussion converged on a precise framing: IPY5 as a structural reset moment — an opportunity to reconstruct, under the combined pressures of geopolitical crisis and climate urgency, the institutions that carry polar science.

Several operational gaps were identified as unfulfilled conditions for this leap:

- observational time series are not protected as critical infrastructure and remain vulnerable to geopolitical vicissitudes;
- data interoperability between national programmes is not guaranteed, for lack of binding commitment to FAIR standards;
- permanent institutional capacity for science communication does not exist;
- no unified bipolar governance architecture, connected to intergovernmental bodies (IPCC, WMO, UNEP, UNESCO), is in place.

A recurring gap was identified in this framework: cryospheric science remains confined to the side events of international climate negotiations, without formal integration into the decisions themselves or into the shared risk indicators for mitigation and adaptation (Burcu Özsoy, SCAR).

COP31 (Antalya, November 2026) was cited as the first available milestone to close this gap.

It is in this context that a long-term horizon formulated during the scenario work is situated. The IGY of 1957–58 showed that a collective scientific moment can produce a durable legal architecture: the Antarctic Treaty is the empirical demonstration. IPY5 operates within the same historical configuration, in a far more constrained context, and with a planetary responsibility of incomparably greater magnitude. The targeted instrument is known: the equivalent of a Montreal Protocol for the cryosphere. What the Symposium identified as decisive is not only the choice of initiatives to prioritise, but the question of the institutions and systems to build for polar science to reach decisions with planetary-scale impact — and for these decisions to benefit first and foremost the communities most directly affected.

The shift from Studying the poles to Governing the global commons is not a gradual evolution — it is a qualitative rupture that existing structures are not configured to absorb. IPY5 is the moment to initiate this transformation and the structures that need to be built have been identified.

Diverging regional priorities

Discussions by participants on the Arctic, the Antarctic and the global polar context converge towards the same diagnosis, while retaining their own thematic priorities: the Arctic prioritises issues of rights, Indigenous governance and international cooperation despite geopolitical rupture; the Antarctic insists on the solidity and vulnerability of multilateral frameworks, science diplomacy, infrastructure and conservation; the global polar perspective places greater emphasis on systemic links between the poles and the rest of the Earth system, as well as on communication and societal mobilisation. These differences do not contradict this common assessment — they map its fields of application and clarify its diplomatic implications.

«IPY5 is being imagined as a structural reset moment, a chance to reinforce the institutions that hold polar science, governance, finance, and knowledge systems together under increasing geopolitical and climatic stress.»

Workshop 1

«As the IGY of 1957–58 gave rise to the Antarctic Treaty, IPY5 could lay the groundwork for a Montreal Protocol equivalent for the cryosphere.»

Workshop 1

I. MAJOR FINDINGS AND AMBITIONS

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Seven Challenges, One Common Demand

Spanning the physical, diplomatic, institutional, financial, epistemological and political dimensions, the seven findings identified proceed from the same systemic challenge: a polar science whose capacity to produce knowledge has been demonstrated, but whose institutional, financial and political architectures fall well short of what the situation demands. Physical change is accelerating, international cooperation is fraying, funding models prove still deficient or inadequate, trust in science is insufficient, and the peoples who live with change on the front line remain at the margins of the decisions that concern them. IPY5 arrives at a moment when these deficits converge — and when the opportunity to address them together, within a coordinated framework and at the required scale, will not recur for a long time.

Taken together, these findings therefore do not only describe vulnerabilities: they already outline several transformation priorities for international polar cooperation towards IPY5. An ambition that simultaneously requires: high-level science, coordinated at a circumpolar scale and genuinely inclusive — from Indigenous Peoples to new polar powers, from the Global North to the Global South; a financial and institutional architecture profoundly reformed, capable of surviving changes of government; and a permanent capacity to translate scientific results into governance decisions with planetary impact.

It is on this analytical bedrock that Workshop 2 engaged with an examination of the concrete conditions for funding capable of responding to the identified ambitions.



II. FUNDING ARCHITECTURE

Challenges, opportunities & necessary transformations



Polar research funding models are structurally inadequate to the ambitions of IPY5: too short, too fragmented, too nationally focused in the face of challenges that are global and long-term. No permanent institutional architecture currently exists to carry these priorities over time. Session 2 of the Symposium took this diagnosis as its starting point for mapping the modalities of a change in the architecture of polar research funding. What the polar ecosystem lacks is not potential funders so much as the intermediary links capable of connecting them to scientific priorities: no one today takes on the task of translating scientific priorities into projects that actors with very different expectations can understand, evaluate and support. Closing this gap is the prerequisite for any scaling-up towards IPY5.

CHALLENGES

- Chronic instability: short cycles vs cryospheric timescales
- National fragmentation: fragmented funding in the face of international science
- Geopolitical pressures on scientific agendas and budgets
- Private and philanthropic funding: real opportunity, poorly managed risks
- Structural access barriers: Indigenous Peoples, early-career researchers, Global South

OPPORTUNITIES

- IPY5 as a label, deadline and lever for multi-year engagement
- New geopolitical actors: India, United Arab Emirates, Turkey, China
- Radical diversification: reinsurance, coastal cities, space agencies
- Under-utilised multilateral mechanisms: Green Climate Fund, BBNJ, development banks
- Translating polar science into planetary security and risk management
- Industrial partnerships: technology co-development in extreme environments

Towards Large-Scale Funding

Structured in two stages, Workshop 2 first mapped the challenges and opportunities of polar science funding in the current context, then explored what «fundable at scale» concretely means. It then identified what structural changes are necessary, on the part of researchers as well as funders, to cross this threshold.

II. FUNDING ARCHITECTURE

Challenges, opportunities & necessary transformations

1. Five Structural Challenges

National polar research funding is fundamentally inadequate to the temporal scales and coordination requirements that the cryospheric crisis imposes. Five structural fractures have been identified.

1

Funding cycles that are too short

The mismatch between short funding cycles and cryospheric timescales has cumulative effects. Monitoring programmes with little media visibility but high cumulative value are systematically weakened. The growing tendency towards prescriptive funding — where funders define priorities upstream — reduces the capacity to adapt to unforeseen discoveries and undermines scientific independence. The costs of this discontinuity are lasting: loss of skills, incomplete data series, precarity for early-career researchers, no legacy carried from one IPY to the next. Without continuity, any scaling-up is reduced to a succession of peaks with no follow-through.

2

A missing link between pilot and programme

Polar funding is national while polar science is international. This contradiction produces costly duplication and consortia without a funding carrier capable of crossing institutional boundaries. Above all, it creates a structural blind spot: many initiatives remain stuck between the pilot and programme stage, too advanced for exploratory research, too fragmented to attract heavy funding. No mechanism takes charge of this scaling-up.

3

Scientific agendas under geopolitical pressure

Climate change appears to have become less prominent in discussions around the next European Framework Programme, as greater emphasis is placed on security and technology. Budget cuts in the United States, the withdrawal from several multilateral agreements and the growing militarisation of funding priorities are reducing the space for polar scientific cooperation. In the other direction, the recomposition of alliances is opening new avenues — India, the United Arab Emirates and Turkey are showing growing interest in polar regions.

4

Private funding: promising but still under-mobilised

Philanthropists tend to concentrate their support on breakthroughs with strong narrative appeal, which disfavours investment in observation infrastructure, long-term databases and continuity of expertise — precisely what appears most needed. The gap between scientific needs and philanthropic criteria is not, however, unbridgeable: it largely reflects a mediation deficit. Polar project holders rarely have the tools to translate their priorities into narratives accessible to private funders, while the latter are poorly acquainted with the temporal horizons specific to cryospheric research. Bridging this gap — through structured meeting formats, adapted narrative materials and mutual awareness-raising work — constitutes a prerequisite for the lasting mobilisation of this capital. Without a collectively defined ethical framework, the growing interest of private actors also exposes polar research to risks of dependency and agenda capture — risks that are all the better managed when dialogue is established early and on transparent foundations.

5

Access inequalities that weaken coalitions

Three levels of inequality run through the system: Indigenous Peoples' organisations and institutions excluded by inadequate accreditation criteria; early-career researchers whose support mechanisms disappear between IPY cycles; and institutions from the Global South and small coastal States, most exposed to polar transformations, often kept at bay by complex accreditation processes. Equity can become the condition for any financial commitment: a project that excludes or underfunds the actors it claims to integrate loses the legitimacy and grounding that would make it fundable at scale — notably among the most demanding funders.

«Philanthropists don't fund pools — they fund stories. To attract them, polar science needs a portfolio of distinct, nameable initiatives, each with its own narrative and visible impact.»

Thomas Stocker

II. FUNDING ARCHITECTURE

Challenges, opportunities & necessary transformations

2. Six Major Opportunities

- 1**

IPY5: a deadline to transform into a lever

The 2032–2033 date can structure multi-year commitments that ordinary budget cycles do not allow. Two mechanisms were proposed: a Polar Funders Roundtable (dedicated coalition of private and philanthropic funders) would fill the coordination void that no national programme can address alone; a Polar Matching Agency would demystify the philanthropic landscape and connect project holders to the right interlocutors. Imperative condition: produce a durable institutional legacy, not yet another spike of activity with no follow-through.
- 2**

New geopolitical actors to mobilise

India, the United Arab Emirates, China and Turkey constitute potential new partners — driven by distinct but converging interests: access to Arctic Sea routes, water security, scientific prestige, or direct vulnerability to sea level rise. Their growing engagement in polar regions is not yet structured into coordinated funding. The MOSAiC model (Multidisciplinary drifting Observatory for the Study of Arctic Climate), the Arctic scientific expedition (2019–2020) that brought together some 300 scientists from more than twenty nations, is here a useful reference: this international campaign demonstrated that a clearly defined common scientific objective can federate national contributions even in a context of geopolitical tensions.
- 3**

Radically diversify funding sources

Three categories remain largely under-mobilised: the reinsurance sector (Munich Re, Swiss Re, Lloyd's), whose core business — precisely modelling coastal risks related to sea level rise and climate tipping points — rests directly on the data that polar research produces; a coalition of mayors of coastal cities, for whom ice melt already translates into infrastructure costs, evacuation plans and revisions of construction standards: decisions that all require reliable polar projections; and space agencies, whose Earth observation programmes depend on polar field data to calibrate and validate their satellite models.
- 4**

Still under-utilised multilateral mechanisms

The Green Climate Fund, the Adaptation Fund and development banks are relevant channels — provided polar projects are reframed around their concrete effects on vulnerable populations: water security, coastal submersion, agricultural losses. These funds think in terms of adaptation, resilience, loss and damage, not cryosphere or glacial dynamics. Any proposal must be framed in their categories to clear the first screening stage. The BBNJ Agreement adds a binding framework requiring States Parties to conduct environmental impact assessments for activities in areas beyond national jurisdiction, including polar waters — without prejudice, in the Antarctic, to the Antarctic Treaty System. Its first Conference of the Parties, in January 2027, will define the operational procedures: a window the preparation of IPY5 should anticipate.
- 5**

Translating polar science into security issues

Funders of national security, risk management or urban development do not see themselves addressed by cryospheric vocabulary — and yet, their priorities depend directly on what polar research produces. Reformulating «water science» as «water security», «climate risk» as «security risk», or presenting ice sheet modelling as a planning tool for coastal cities, is enough to open budgetary doors — without yielding anything on scientific rigour. This reframing allows the interlocutor to perceive the relevance of scientific results for their own responsibilities.
- 6**

Industrial partnerships based on mutual interest

Certain companies in the energy sector, naval construction or scientific instrumentation are developing technologies for which polar environments are both the testing ground and the first user. This type of partnership rests on a shared interest. The decarbonisation of polar operations is a concrete example: reducing the footprint of scientific campaigns creates a direct demand for solutions that these industry players are precisely seeking to validate in real conditions.

«Never let a crisis go to waste: geopolitical tensions are opening new funding doors.» — Henry Burgess
«Re-insurers have a direct financial stake in polar science. Sea level rise and tipping points are their exposure.» — Thomas Stocker

II. FUNDING ARCHITECTURE

Challenges, opportunities & necessary transformations

3. Priority Structural Transformations

The challenge of mobilising funding runs up against a divergence in practices rooted in professional cultures and institutional constraints that neither researchers nor funders can modify on their own. Transforming polar science into coordinated and durable action is not simply a matter of resources. The challenges and opportunities mapped in the preceding sections demonstrate this: the capital exists, potential actors have been identified, available mechanisms are more numerous than one might suppose. What is lacking is the capacity of both parties to meet: researchers capable of formulating their priorities in a language that very different funders can hear; funders capable of breaking out of short cycles and agenda capture to invest over the long term. Fundamental transformations have been identified as priorities. Their combination is the real condition for funding proportionate to the ambitions of IPY5.

travel, interpretation, compensation for forgone income, and for Knowledge holders' time and expertise.

This approach strengthens scientific robustness, community grounding and the political legitimacy of projects — three factors directly linked to their capacity to mobilise funding.



On the researchers' side

Becoming strategic narrators

Integrating science communication into project design, entrusting it to professionals capable of producing adapted formats: policy briefs, joint researcher-funder interviews, multilingual educational materials. Strengthening impact measurement and systematically demonstrating the cost of inaction, a rhetorical lever still largely under-used that must become a flagship argument, quantified and targeted according to interlocutors.

This evolution reduces the information asymmetry between researchers and funders, shortens the path from idea to funding decision — without placing an additional communication burden on researchers.

Treating funders as long-term partners

Co-designing rather than applying unilaterally. Understanding the funder's priorities before submitting a proposal. Reporting on impact continuously. Structuring proposals in phases with clear milestones to reduce perceived risk without closing the door to innovation.

This change of posture improves the quality of alignment between project and criteria, provided that vigilance is maintained on the risk of dependency: dialogue must not lead to subordinating scientific autonomy to the priorities of the funder.

Involving Indigenous Peoples from the outset

Beyond the relationship with funders, a third fundamental transformation concerns the very design of projects: involving Indigenous Peoples in shaping and leading research and explicitly funding the real costs of this co-production in budgets:

On the funders' side

Fund the real cost of projects and coalitions

Cover project development, overheads, and the costs of Indigenous participation (travel, interpretation, compensation) and the additional costs specific to polar environments. Direct well-evaluated but unfunded proposals towards alternative funders — a simple mechanism that avoids the net loss of quality scientific work.

Coordinate criteria and cycles between funders

The incompatibility of national evaluation frameworks prevents the construction of multinational consortia. Common criteria and pooled mechanisms would considerably reduce coordination costs. The Polar Funders Roundtable and the Cryosphere Finance Dialogue constitute directly available implementation tools.

Accept uncertainty and fund high-ambition research

Multi-year commitments and tolerance for partial failure are conditions for transformative research: flexibility in impact evaluation must not be perceived as a lack of rigour, but as an adaptation to the realities of fundamental science. Investing in infrastructure, long-term databases and continuity of expertise (blind spots in classic budgets) represents a public good that conditions the value of all projects.

Ensure the transition from pilot project to sustainable programme

Guarantee continuity for both teams and data, by creating clear pathways between pilots, intermediate programmes and long-term funding. Without a clear trajectory, pilot results do not consolidate, and the initial investment is lost.

II. FUNDING ARCHITECTURE

Challenges, opportunities & necessary transformations

4. Five Models for IPY5

Five funding models were identified as adapted to the constraints and ambitions of IPY5. Coordination and progressive funding mechanisms are the most immediately operational. Proposals based on a treaty or global taxation remain at an exploratory stage.



1

Progressive funding: from pilot to programme

Fund national pilot projects, select and scale up the strongest on a transnational basis. Well-evaluated but unfunded proposals are directed towards alternative funders. This model allows ambitious priorities to be de-risked without waiting for a global mechanism to exist.

2

Polar Horizon: dedicated funding instrument

Put in place a programme common to several States and private actors on the basis of shared scientific criteria, pooled resources and a timetable independent of national political cycles. The EU's Horizon programme offers an operational model to overcome the risk of fragmentation and lack of alignment: mandatory multinational consortium applications, peer review common to all participants, and seven-year cycles freed from national governmental agendas.

Credibility condition: neutral governance and rigorous peer review.

3

Blended finance: hybrid architecture

Aggregate public, philanthropic and industrial contributions around common objectives, taking advantage of the direct interest of the insurance and reinsurance sectors in polar data. Without a common ethical framework defining the rights and obligations of each party, this model of pooled and cumulative funding exposes polar research to the risks of dependency, agenda capture, and pressure on results.

Strict credibility conditions: peer review, ethical governance, transparency of interests, protection of independence, non-substitution for fundamental public funding.

4

Building on existing frameworks

Rather than creating new institutions, three options build on already existing architectures. The BBNJ Agreement (adopted in 2023, in force since January 2026) is the most immediately available: its first Conference of the Parties, in January 2027, will set the operational procedures — a window to anticipate in the preparation of IPY5. The WMO membership funding model offers an immediately transposable governance reference, more realistic than a specific polar treaty, whose institutional maturation would require several decades. The allocation of a fraction of a global carbon tax to polar research constitutes the most ambitious structural lever. A dedicated IPY5 Fund with a shared scientific mandate was additionally identified as a complementary avenue.

5

Non-traditional actors: broadening the base of support

Tap non-traditional sources: a levy on polar cruises, a coalition of mayors of coastal cities, space agencies, corporate philanthropy, a Polar Global Prize on the model of major innovation prizes such as the XPRIZE. These levers of visibility and mobilisation build the public and political support on which structural funding mechanisms depend.

II. FUNDING ARCHITECTURE

Challenges, opportunities & necessary transformations

5. Conclusion

FOUR CONDITIONS FOR FUNDING AT SCALE

Potential funders of polar science exist; what is missing is the machinery to coordinate them and the arguments to convince them. Four conditions must be met to turn polar research into action. The IPY5 horizon is the decisive moment to cross that threshold and open a new paradigm:

1. Create a dedicated coordination instrument (Polar Horizon or equivalent) to align criteria, cycles and contributions under a common scientific mandate, insulated from changes of government. This coordination gains credibility if it is carried by a trusted intermediary: an actor that guarantees neutrality in convening and rigour in selection, regardless of its own capacity to fund directly.
2. Write polar priorities into programmes already under way, beginning with the next European framework programme and the BBNJ process ahead of its Conference of the Parties in January 2027, before budget lines are set.
3. Diversify the funding base (reinsurers, polar tourism, coastal cities, space agencies, philanthropy) giving each type of partnership an appropriate ethical and governance framework.
4. Reframe polar science in terms of concrete risks (sea level rise, food security, infrastructure resilience) to reach funders who do not yet see the connection between the poles and their own exposure.

The mechanisms mentioned here — whether a Polar Funders Roundtable, a Cryosphere Finance Dialogue or analogous instruments — are given operational form in the flagship initiatives of Part III, which specify their architecture and first implementation steps.



III. FLAGSHIP INITIATIVES

From Research to Action



The seventeen flagship initiatives took shape around the principle «Research to Action», emerging from the deliberative process that mobilised the 170 participants at the Monaco Polar Symposium — a process that brought together researchers, funders, diplomats and representatives of Arctic Indigenous communities around the same tables. Structured around five thematic pillars responding to the challenges and opportunities set out above, they form an actionable roadmap for IPY5 with a precise objective: to go beyond the diagnosis and identify initiatives capable of creating the conditions for a transformative moment, both for polar science and for planetary governance.

The deliberative process ran across the full three days of the Symposium.

The first two workshops laid the analytical foundations: a mapping of geopolitical and institutional dynamics, then a critical examination of funding models and the conditions for their reform. On this basis, Workshop 3 engaged participants in a collective effort to identify and structure priority initiatives — developed, discussed and refined during the sessions to bring out not only proposals, but their conditions for implementation, their governance and their pathway to impact. Bringing them together revealed convergences and clarified their strategic scope.

The five pillars cover the full spectrum of action: planetary risk and science diplomacy; digital territories and data infrastructure; Indigenous leadership and co-production; governance and new

architectures; and knowledge, narrative and citizen engagement. These pillars are not separate compartments but a single system: advances in observation and modelling count for little unless data are open and interoperable; co-production with Indigenous Peoples determines the legitimacy of conservation initiatives and educational programmes alike; reform of the financial architecture underpins all of them. Each initiative is presented with its objectives, the actors expected to lead it, and the concrete first steps to be taken in the IPY5 preparation window.

«The question isn't just which projects are the right projects, but which institutions and systems must be built to carry polar science responsibly into decisions with planetary-scale impacts.»

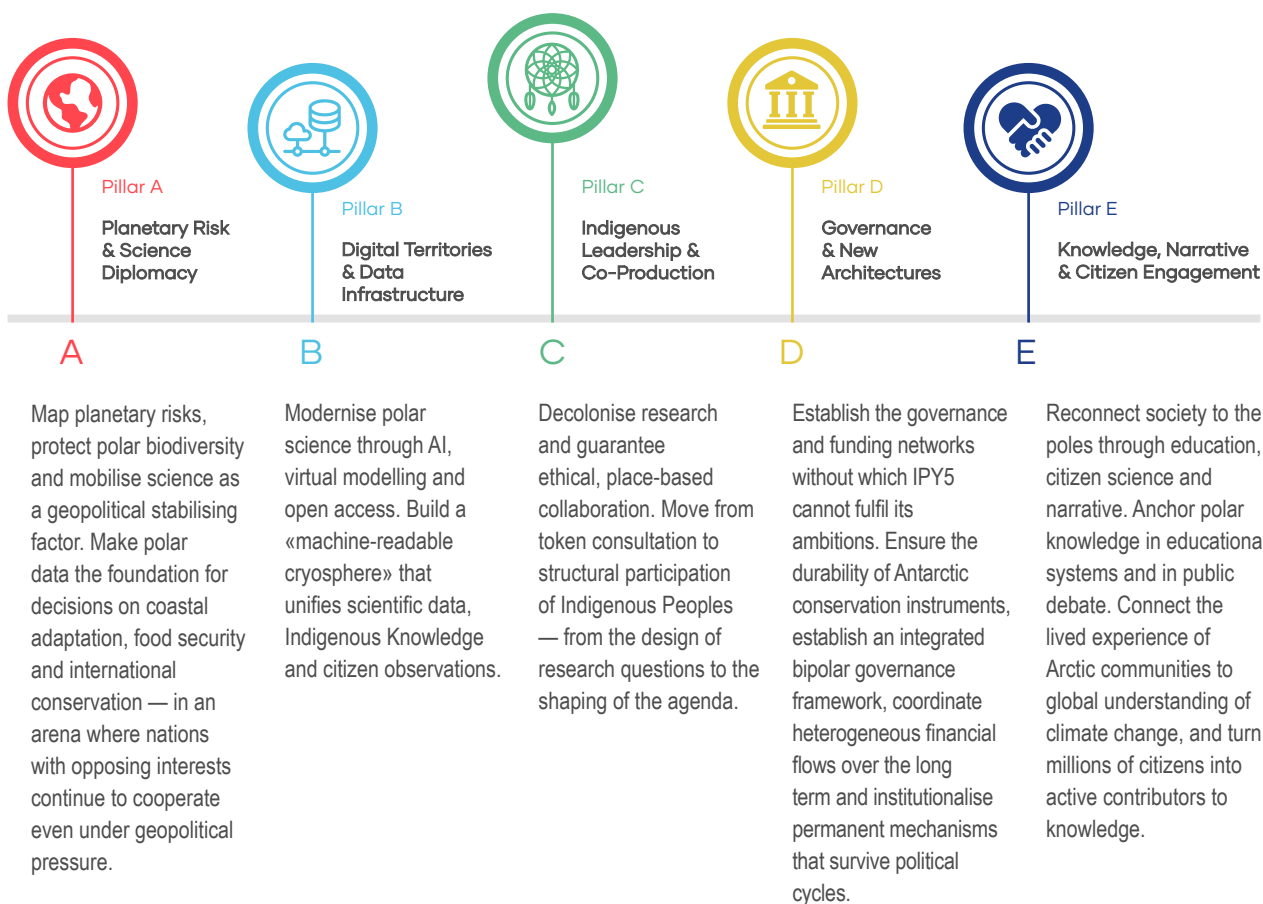
Michael Meredith, British Antarctic Survey, Panel 3

III. FLAGSHIP INITIATIVES

From Research to Action

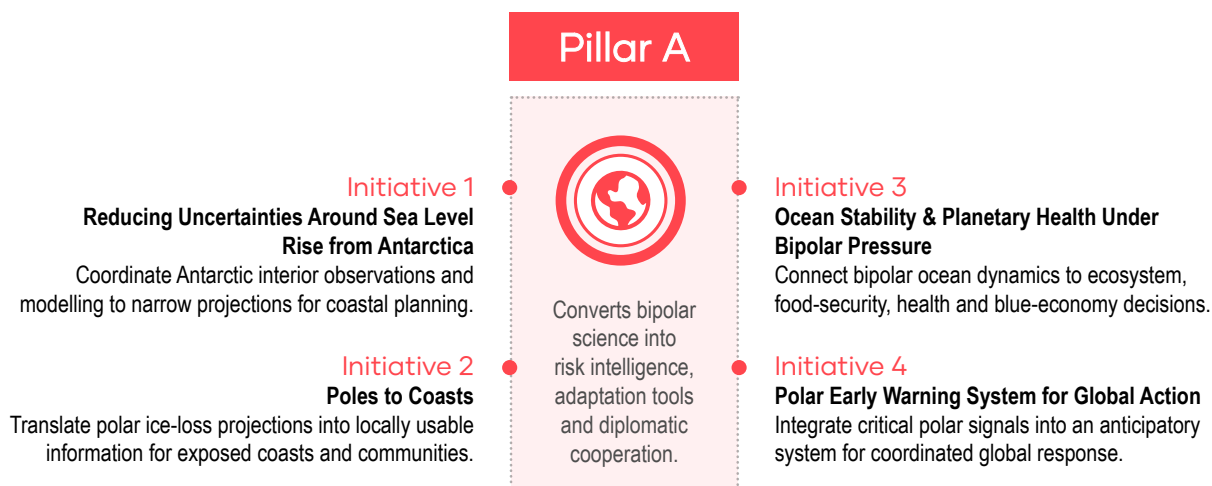


FIVE THEMATIC PILLARS



III. FLAGSHIP INITIATIVES

From Research to Action



Planetary Risk & Science Diplomacy

The poles directly shape the stability of the climate, oceans and coastlines at a planetary scale, and the uncertainties that still weigh on their dynamics have a real cost: every coastal infrastructure decision, every adaptation strategy, every conservation negotiation is taken today with insufficient, fragmented or locally unusable data. Polar science is not only a knowledge priority: it is a condition for all rational planning in the face of planetary risk. This is the ambition the Pillar A initiatives carry: reducing at source the uncertainties around sea level rise by improving knowledge of the Antarctic interior (Initiative 1); translating this data into locally actionable projections for coastal governments and exposed populations (Initiative 2); understanding bipolar ocean dynamics and their cascade effects on ecosystems, food security and the blue economy (Initiative 3); detecting signals of critical threshold crossings with sufficient advance notice to permit planned responses at a global scale (Initiative 4).

These four initiatives constitute a planetary risk warning system and a concrete commitment to the preservation of the oceanic commons.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 1 •

REDUCING UNCERTAINTIES AROUND SEA LEVEL RISE FROM ANTARCTICA

A coordinated traverse of the Antarctic interior to reduce sea level rise uncertainties at source and translate them into planning parameters directly usable by decision-makers and coastal planners.

Reducing uncertainties around sea level rise calls for a coordinated traverse approach across the interior of the Antarctic continent — the least observed environment on the planet and the principal source of uncertainty in global projections. The continental interior is where the two most poorly modelled processes occur: sliding at the ice-bedrock interface, which governs ice sheet stability, and calving dynamics, whose speed and volume remain difficult to anticipate. Added to this is the surface mass balance — the quantity of snow accumulated in the interior — which can act as a natural buffer against sea level rise but remains insufficiently quantified to be integrated into projection models. By synchronising national programmes around priority supersites for international collaboration, and drawing on existing SCAR frameworks such as INSTANT and Antarctica inSYNC, the initiative closes the observation gaps that must be filled to reduce the uncertainty range in global projections. The scope is deliberately interdisciplinary: it aims to understand the full ice-bedrock-ocean-atmosphere system, including geological archives that record past extreme events and help calibrate models of future behaviour. Continuity is decisive: observational and modelling efforts on an unprecedented scale, not subject to project-budget deadlines. IPCC practices act as the starting point of reference. A scientific communication strategy must be integrated from the outset of the initiative in the form of a permanent professional capacity. Scientific uncertainty, poorly communicated, is regularly exploited to delay action — including research funding decisions themselves. The response is not to minimise a real uncertainty, but to reframe it as a risk management challenge, and to communicate with precision what is known, what is still unknown, and what that remaining gap costs. This capacity allows messages to be segmented by audience (political decision-makers, funders and diplomatic interlocutors) to secure the support and resources necessary for the continuity of the observation programme. Small Island Developing States (SIDS), key political interlocutors on these questions, must be associated from the design phase of this strategy: their support shapes international negotiations on coastal adaptation.

«We must face the «deep uncertainty» of the Antarctic interior — to provide coastal planners with the 98% certainty they need to protect hundreds of millions of people. Narrowing uncertainty is not a scientific luxury: it is a prerequisite for every rational infrastructure investment on threatened coastlines.»

Prof. Robert DeConto, University of Massachusetts, WCRP CliC

Priority for IPY5

Data on the Antarctic continental interior remain fragmented between national programmes that neither coordinate with one another nor cover the most critical zones. The two major sources of uncertainty (ice-rock sliding and calving dynamics) can only be reduced by a coordinated traverse at a continental scale, which only IPY5 can organise as a structured collective programme. Coastal infrastructure decisions that depend on these projections are being made now — and a reduction in uncertainty without operational translation remains no more than a scientific result.

Key objectives

- Establish a permanent interdisciplinary observatory covering the entire Antarctic continental interior;
- Standardise ice sheet data collection across national programmes;
- Reduce the uncertainty range in global sea level rise projections below operational planning thresholds;
- Secure political support and resources necessary for the continuity of the observation programme.

First steps

- Bring together national programmes as early as 2026 to jointly map the priority supersites that IPY5 activities should cover in 2032–2033, drawing on existing inSYNC, INSTANT and RINGS structures;
- Launch a continental-scale bedrock mapping programme, prioritising interior zones where data are absent — a prerequisite for calibrating ice-bedrock sliding models;
- Establish the coordination structure within two years, drawing on the model of the International Thwaites Glacier Collaboration, extended to East Antarctica and the full continental interior;
- Integrate interannual variability into modelling protocols from the design phase;
- Develop a communication framework reframing uncertainty as a risk management challenge, with message segmentation protocols by target audience (political decision-makers, funders, diplomats);
- Recruit a dedicated professional science communication team, with an explicit mandate to translate results for political decision-makers, research funders and SIDS representatives;
- Involve from the design phase: SCAR, COMNAP, ISC, national programmes, economists and SIDS representatives.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 2 •

POLES TO COASTS

High-resolution, locally actionable sea level rise projections — so that every government with an exposed coastline has the data necessary for rational infrastructure decisions.

Poles to Coasts translates ice sheet data into high-resolution, locally actionable projections for more than a billion people living on exposed coastlines. Explicitly multidisciplinary, the initiative combines glaciological modelling, ocean physics, coastal geomorphology and social sciences to produce projections that are both precise and useful to the communities they are meant to serve. Building on and extending the work of Seabed 2030, it maps global coastal bathymetry and local tidal ranges, with sufficient resolution to enable planning at a local scale (managed retreat, coastal defence, infrastructure investments). Its ambition is to shift sea level modelling practices: to bring resolution up from the global to the local scale, and to translate scientific projections into decision-support tools directly usable by decision-makers, planners and exposed populations.

The underlying challenge is both scientific and methodological: the link between polar ice loss and local sea level rise involves a complex chain of physical processes (ice sheet dynamics, thermal expansion of oceans, changes in the gravitational field, coastal erosion modelling, bathymetry and local tidal dynamics) that must be integrated into coherent projections at a global scale. The initiative builds social and economic sciences into the design of the tools that make polar data locally relevant. The high-resolution modelling it produces will feed directly into the Polar Early Warning System (Initiative 4). Small Island Developing States (SIDS) play a distinct role here: not as political interlocutors in international negotiations, but as co-designers of the tools that deliver the results, responsible for verifying that projections are usable locally. The proposed governance framework is hybrid: anchored in the UN Decade of Ocean Science for Sustainable Development and the Decade of Action for Cryospheric Sciences, it brings together national contributions, international scientific expertise and representation of coastal communities in a shared steering model — a source of legitimacy that outlasts project cycles. Countries with advanced expertise in integrated coastal modelling, such as New Zealand, offer reference models for training and best-practice transfer to national teams.

«We have better maps of the Moon and Mars than we do for the seafloor of Antarctica.»

Prof. Robert DeConto, University of Massachusetts, WCRP CliC

«Empower coastal communities globally to make informed decisions to protect their coastlines.» — Jeremy Ely, Workshop 3

Priority for IPY5

Current sea level rise projections remain at a global resolution too coarse to inform local infrastructure decisions. Bathymetric data, tidal models and coastal erosion models exist in separate, non-interoperable national systems. IPY5 provides the framework for aggregating, standardising and translating them into tools directly usable by coastal governments — coordination work that exceeds the capacity of any national programme.

Key objectives

- Map global coastal bathymetry, integrating tides, coastal erosion and ice sheet dynamics;
- Produce local-resolution projections for the most vulnerable coastal zones, co-designed with SIDS and coastal communities to be directly usable by their governments;
- Shift sea level modelling towards an operational local resolution;
- Connect polar projections to disaster risk reduction agendas.

First steps

- Map existing bathymetric, tidal range and coastal erosion data; form an interdisciplinary modelling working group to assess uncertainties and identify priority gaps;
- Develop a common vision for the projection platform, drawing on best practices and on the experience of countries with strong integrated coastal modelling expertise;
- Engage a co-design phase with SIDS and coastal communities to define output formats and indicators directly usable by their governments;
- Establish the governance framework with an annual progress reporting mechanism;
- Deliver the first high-resolution projections for a high-vulnerability coastal zone, as a proof of concept and a lever for buy-in;
- Involve from launch: WMO, UNESCO, SCAR, SOOS, national programmes, disaster risk reduction actors, SIDS representatives and every government with an exposed coastline.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 3 •

OCEAN STABILITY & PLANETARY HEALTH UNDER BIPOLAR PRESSURE

A coordinated, bipolar reading of ocean dynamics and their cascade effects on societies, ecosystems and the blue economy.

Ocean Stability & Planetary Health Under Bipolar Pressure starts from a single observation: the Arctic and Antarctic together form the principal cooling engine of the global ocean. The cold, dense water produced at both poles feeds the deep circulation systems (including the AMOC and the Gulf Stream) that regulate temperature, precipitation and the distribution of marine life across all ocean basins. Rather than treating these two regions as separate research domains, the initiative connects them into a single interdependent system, simultaneously tracking how ice loss at both poles is reconfiguring deep circulation, surface weather patterns and the global food web. It incorporates genomics and metagenomics to connect physical and biological science in ways that current programmatic structures do not allow. A hard logistical constraint shapes its ambition: there is currently no way to observe deep water masses remotely; all in situ data collection requires physical presence, ships and heavy logistics that current capacities cannot deploy at the required scale. The initiative must therefore include, from the design stage, a technology development component for long-range data transmission from the deep ocean. The initiative also opens a medical and heritage dimension still little integrated into polar programmes: the deep ocean is a «pharmacy of the future», a reservoir of largely unexplored biological resources with significant medical potential, many of which are threatened by acidification and warming before they have even been discovered. The proposal to establish a Global Ocean DNA Repository, modelled on the Svalbard Global Seed Vault, extends this ambition by linking ocean circulation science to the long-term stewardship of the planet's biological heritage. The Southern Ocean is one of the most productive biological systems on the planet — the world's pantry, on which food chains extending well beyond polar regions depend. The disruption of cold currents, water acidification and changes in krill ecosystems cascade through global fisheries, the livelihoods of coastal populations and global food markets.

This food-security dimension, together with the medicine-cabinet dimension, considerably broadens the circle of decision-makers with a direct stake in the initiative's results. Without a systemic understanding of the polar drivers that underpin the productivity, circulation and resilience of the oceans, no strategy for the sustainable management of the blue economy can be soundly grounded. The current overexploitation of marine resources makes this integration all the more urgent.

«We need a system-scale understanding of how accelerating ice melt at both poles is reshaping global ocean circulation and, in turn, the planetary systems that depend on it.»

Grace Cordsen, Polar-Global table, Workshop 3

Priority for IPY5

Bipolar ocean circulation data remain fragmented between uncoordinated national programmes, and the deep ocean remains inaccessible to remote observation for lack of adapted technologies. Both obstacles can be addressed through IPY5, which offers the institutional framework to connect programmes in a simultaneous and coherent effort, at precisely the moment when new long-range transmission technologies make deep ocean observation feasible at the required scale.

Key objectives

- Produce the first systemic, bipolar understanding of the reconfiguration of deep ocean circulation
- Develop the technological infrastructure necessary for sustained deep ocean observation;
- Link physical and biological science by integrating genomics and metagenomics of polar oceans;
- Establish a Global Ocean DNA Repository as a long-term stewardship infrastructure for marine biological heritage;
- Provide data directly usable for the sustainable management of the blue economy and global food security.

First steps

- Establish an IPY working group with a precise mandate and deliverables, anchored in existing institutions;
- Develop strategic partnerships with nations with strong maritime capacity (including China, South Korea, India and Australia) and launch a formal call for volunteer research vessels;
- Launch a call for new technologies to make deep ocean research more accessible, particularly for long-range data transmission;
- Establish data-sharing protocols with the Canadian Polar Data Consortium and equivalent bodies;
- Launch a feasibility study for the Global Ocean DNA Repository;
- Develop an impact assessment framework for global food security and the blue economy, in partnership with FAO and existing blue economy governance frameworks;
- Engage in dialogue with the Arctic Ocean Regional Alliance (ArORA) to extend its coordination structure to a bipolar scale.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 4 •

POLAR EARLY WARNING SYSTEM FOR GLOBAL ACTION

Detecting signals of polar critical threshold crossings with sufficient advance notice to permit planned responses at a global scale.

Producing knowledge about polar risk is not enough: it also takes infrastructure capable of translating these signals into action before critical thresholds are crossed. That is precisely the purpose of this initiative. The integrated early warning system is designed to detect and predict ice sheet collapse and sea level rise thresholds at a planetary scale. It is a coordinated infrastructure capable of translating these predictions into agricultural planning, humanitarian logistics, the management of population displacement, and environmental and financial risk models — enabling governments and institutions to anticipate rather than react.

Drawing on newly available data acquisition technologies (autonomous underwater vehicles, airborne ice-penetrating radar, ice-traversing robots), the initiative aims to create a monitoring architecture offering genuine predictive capacity: identifying signals of imminent threshold crossings to enable planned human movements, agricultural reconfigurations and infrastructure reinforcements. No institutional equivalent exists: the system has to be built. Its design will need to integrate from the outset a robust governance model relying on existing coordinated networks rather than new structures, and an autonomous funding strategy — both capable of ensuring its continuity well beyond the IPY5 cycle.

The long-duration observation systems inherited from IPY4 and over the two decades since form the base on which to build, provided they are maintained and extended. The insurance and risk-finance industries are among the most direct beneficiaries of such a system: the capacity to predict the crossing of critical thresholds in advance represents a measurable economic value for them, and a natural lever for channelling private investment into its funding.

«Monitoring would be needed in perpetuity.»

Veryan Vere Hodge table, Workshop 3

«Empower the world to prepare for the global consequences of polar change.»

Veryan Vere Hodge table, Workshop 3

Priority for IPY5

No integrated planetary-scale early warning system exists today for polar regions. The 2032 deadline is a unique opportunity to build one; the autonomous, long-range data acquisition technologies now available provide the technical lever. Delaying its design would set back by an entire cycle the collective capacity to anticipate the planetary consequences of polar change.

Key objectives

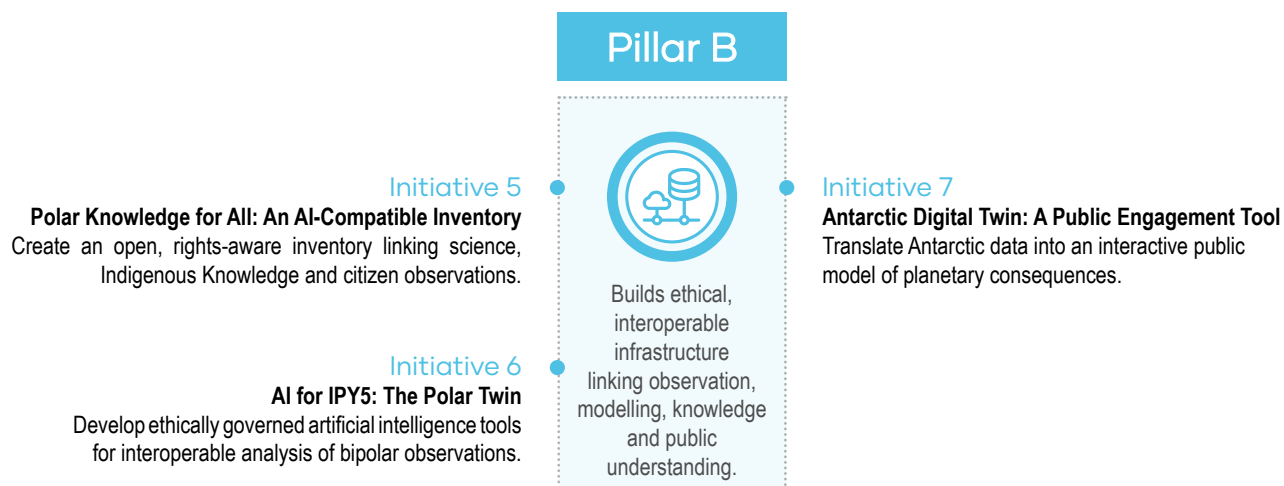
- Create the first global infrastructure for detecting and predicting ice sheet collapse thresholds;
- Link polar signals to agricultural, humanitarian and infrastructure planning models at a global scale;
- Mobilise private funding (insurance sector, technology investors) around the measurable economic value of an early warning capacity;
- Build a durable governance architecture, founded on existing coordinated networks and secured by international infrastructure-sharing agreements.

First steps

- Mandate IASC and SCAR to lead the diplomatic work of mobilisation and advocacy with governments and funding bodies, to secure global political commitment from launch;
- Inventory existing data systems (ARGO, GCOS, SOOS, SOOP) and identify critical gaps for tipping point detection;
- Test the detection of threshold-crossing signals against existing data;
- Launch negotiations for international infrastructure-sharing agreements with partner countries;
- Secure infrastructure construction funding, prioritising technology investors and the insurance sector;
- Design the governance model building on existing coordinated networks rather than creating a new institution.

III. FLAGSHIP INITIATIVES

From Research to Action



Digital Territories & Data Infrastructure

Decades of polar research have produced an extraordinary wealth of data (satellites, in situ observations, Indigenous Knowledge, citizen science). Yet this abundance remains largely unexploited: data remain fragmented between national programmes, rarely interoperable, sometimes duplicated for lack of mutual visibility. The problem is not a collection deficit, but the absence of a common infrastructure to make this knowledge accessible, shareable and machine-readable. This is a structural bottleneck that the three Pillar B flagship initiatives set out to resolve: a globally co-designed, AI-compatible inventory consolidating polar knowledge (Initiative 5 — Polar Knowledge for All); a suite of foundation models specifically trained on circumpolar data for the scientific community (Initiative 6 — Polar Twin); and an interactive visualisation tool to anchor Antarctic realities in public awareness (Initiative 7 — Antarctic Digital Twin).

These three initiatives form the new digital foundations enabling polar knowledge to be brought together, made visible and mobilisable for action.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 5 •

POLAR KNOWLEDGE FOR ALL: AN AI-COMPATIBLE INVENTORY

A global inventory co-designed with rights holders, consolidating scientific data, Indigenous Knowledge and citizen observations in an open, AI-compatible platform.

The Polar Knowledge for All platform is built around open standards, FAIR and CARE principles and robust ethical protocols for the inclusion of traditional and Indigenous Knowledge. A co-design panel, involving rights holders and data providers from the outset, ensures that the architecture reflects the needs and priorities of the communities whose knowledge it contains — following established practices such as Te Mana Raraunga, the Māori Data Sovereignty Network's framework for Indigenous data governance (established 2016).

The inventory is designed for four distinct and complementary uses: science, public policy, finance and education. It serves researchers testing models as much as decision-makers basing their adaptation strategies on it, economic and financial actors integrating polar risk into their decisions, or teachers seeking accessible resources on polar dynamics. A paradox underpins this ambition: never has knowledge of the poles been so vast, from satellite networks to oral histories and Indigenous research, yet researchers, decision-makers and funders continue to work in silos, missing critical data and taking decisions in areas where existing knowledge could already fill the gaps. By eliminating redundancies between programmes and better targeting resource allocation, the inventory also acts as an efficiency lever for all polar research.

«We have enough data — but no finance to analyse it, use it, or get scientists to exchange and develop streamlined protocols.»

Table notes, Workshop 3

“The key question is who can access funding and control decisions — how they happen, and how they support research.”

David Hik, Polar Knowledge Canada



Priority for IPY5

The fragmentation of polar data between uncoordinated national programmes is a structural obstacle to both science and decision-making. Linking both poles within a common infrastructure, establishing shared standards and integrating Indigenous Knowledge under ethical conditions requires circumpolar coordination that only an effort of the scale of IPY5 can organise and legitimise. The platform's value grows with time and the volume of contributions: the earlier the foundations are laid, the more durable the legacy.

Key objectives

- Establish shared governance between rights holders, data providers and users, ensuring that the platform architecture reflects the needs of the communities whose knowledge it contains;
- Establish common standards and ethical protocols guaranteeing data accessibility and Indigenous data sovereignty;
- Provide an operational reference tool for science, decision-makers, the financial sector and education;
- Demonstrate the platform's value beyond the IPY5 cycle.

First steps

- Form the co-design panel with rights holders and data providers, tasking it with drawing up protocols governing sharing (intellectual property rights, contribution conditions, Indigenous Knowledge protection) and the definition of success indicators;
- Launch a pilot project on sea ice dynamics (a domain where national data are abundant and fragmentation well documented) to demonstrate platform utility and generate national programme buy-in;
- Establish common data standards between major national infrastructures, drawing on existing structures (WMO, UNESCO, IASC, SCAR, Arctic Council).
- Define success metrics from the design stage, based on the volume of data contributed and actually used, to ensure impact tracking beyond the IPY5 cycle.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 6 •

AI FOR IPY5: THE POLAR TWIN

Artificial intelligence tools specifically trained on polar data, so that the extraordinary mass of observations accumulated at both poles enables continuous, ethically governed and directly operational monitoring.

The Polar Twin is a suite of foundation models trained on circumpolar data, capable of ingesting inputs as diverse as satellite imagery, oceanographic observations, Indigenous ecological knowledge and citizen science contributions. Its scope is deliberately bipolar: the processes it models (deep ocean circulation, ice sheet dynamics, greenhouse gas fluxes) can only be understood by treating both poles as an interdependent system. The objective is a machine-learning-ready digital infrastructure offering continuous, real-time monitoring of polar change, capable of simulating the consequences of various warming scenarios at both local and global scales. For polar science (characterised by sparse in situ observations, vast spatial extents and complex multi-system interactions), these tools unlock analytical capabilities previously out of reach: continental-scale signal detection, predictive modelling integrating thousands of variables simultaneously, identification of critical thresholds in noisy data.

The Polar Twin is above all a scientific infrastructure: its users are researchers and modelling systems, its results are processed data and simulations, not visualisations intended for non-specialists. The ethical dimension is central. As polar science integrates Indigenous Knowledge into its databases, the risk of digital extraction — the use of that Knowledge without consent, attribution or benefit-sharing — must be addressed at the design stage. The initiative proposes standardised methodologies for the ethical digitisation of Indigenous Knowledge, ensuring that data sovereignty is maintained within AI systems and that communities retain control of their own digital archives. A rigorous code of conduct, defining usage conditions and ethical obligations for all partners, must be co-designed from the outset.

«The future of monitoring is AI. By building a machine-learning-ready «Polar Twin», we bridge the gap between science and tech, making our massive data streams truly actionable.»

Mads Qvist Frederiksen, Workshop 3

Priority for IPY5

Polar science is accumulating unprecedented volumes of data that traditional analysis methods can no longer process at the required scale. General-purpose AI models are not trained on polar data. Building a dedicated digital infrastructure requires the polar scientific community and the technology sector to work together — a convergence that no national programme has the standing to convene. Every year that passes without it, irreplaceable observational data accumulate without being fully exploitable: the cost of waiting is real and growing.

Key objectives

- Develop the first foundation models specifically trained on circumpolar data, treating the Arctic and the Antarctic as a coupled system;
- Create a digital infrastructure capable of continuously ingesting and processing polar observation streams to feed real-time modelling and monitoring;
- Establish standardised ethical protocols for the digitisation and integration of Indigenous Knowledge into AI systems, ensuring communities retain sovereignty over their data;
- Secure partnerships with the private technology sector (AI developers, computing providers, space actors), on which the initiative's feasibility depends;
- Establish governance adapted to the scientific purpose of the infrastructure, ensuring that its development criteria and access conditions reflect the needs of its direct users (researchers and modelling systems).

First steps

- Establish an interdisciplinary advisory group in the first twelve months, with a mandate to assess data integration, ethics and cross-border collection protocols;
- Develop, in co-design with Indigenous communities, ethical digitisation protocols and a code of conduct defining usage conditions for all partners;
- Initiate dialogues with private sector technology partners to secure the computing power, expertise and satellite resources needed for the first prototype;
- Launch the first prototype on existing circumpolar satellite datasets to demonstrate analytical capabilities that no national programme can currently reach.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 7 •

ANTARCTIC DIGITAL TWIN: A PUBLIC ENGAGEMENT TOOL

An interactive visualisation tool aimed at the general public, translating scientific data on Antarctica into a living, directly intelligible experience — to anchor in societies the awareness of a continent on which the future of the global climate depends.

The Antarctic Digital Twin aims to turn distance from the continent into familiarity, offering a living digital environment that any user can experience: from the dynamics of the ice sheet to wildlife habitats, from deep ocean circulation to tipping points. Citizens, students, educators, artists, decision-makers and organisations such as APECS (Association of Polar Early Career Scientists) and Polar Educators International currently encounter Antarctica only through academic publications. The Digital Twin offers what none of these channels can provide: a direct, explorable experience of the continent.

Antarctica is an especially favourable testing ground for this project: governed since 1959 by a treaty dedicated to science and peace, with no permanent population or resident Indigenous communities, it greatly simplifies questions of data governance — which reduce to access and transmission, without the sovereignty issues that complicate equivalent Arctic initiatives. Drawing on existing work — notably the DITTO project (Digital Twins of the Ocean) — and mobilising partnerships with private sector developers in gaming, AI and simulation, the Digital Twin would integrate real-time satellite data with historical in situ observations and projections from scientific modelling. A global co-design survey, involving different audiences from the development phase onwards, is a condition of its utility and large-scale adoption.

«Part of IPY's legacy could be this: the world better understands and appreciates Antarctica.»

Cassandra Brooks, Workshop 3

«Properly implemented, it would provide a paradigm shift in polar engagement — from the public and decision makers alike.»

Eoghan Griffin, Workshop 3

Priority for IPY5

Antarctica shapes the global climate, but remains invisible to the vast majority of citizens, teachers and decision-makers. Interactive visualisation technologies offer, for the first time, the means to bridge this gap at scale. IPY5 offers the opportunity to mobilise these technology partnerships around a shared scientific and civic objective, and to anchor this tool in a durable institutional framework, in line with the Decade of Action for Cryospheric Sciences.

Key objectives

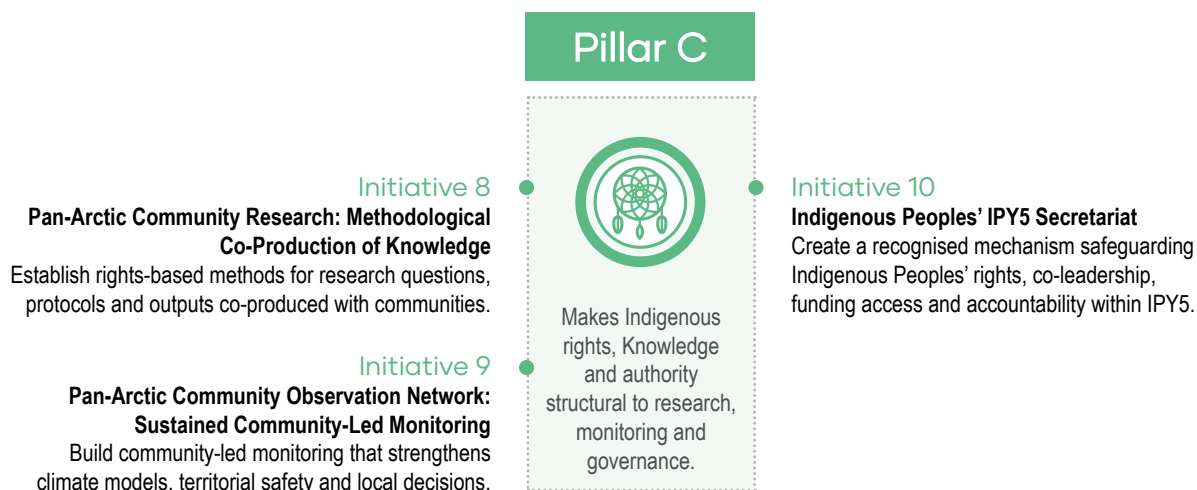
- Produce a living digital environment, freely accessible, integrating real-time data, historical observations and scientific projections in an experience explorable by any user;
- Achieve large-scale adoption by mobilising, from the co-design stage onwards, communities without traditional connections to the poles (educators, artists, youth organisations) as dissemination vectors;
- Establish operational partnerships with the private technology sector, on which the tool's development depends;
- Ensure durable, neutral institutional hosting (potentially within the UN system) and define at the design stage the ethical usage framework for all partners.

First steps

- Map available data sources (real-time, historical, projections) and establish the metadata standards necessary for their integration into the platform;
- Conduct a global co-design survey involving target audiences from the development phase, to define expected uses, the most accessible formats and first-phase engagement indicators;
- Identify and approach priority technology developers, drawing on existing work (notably the DITTO project) to demonstrate feasibility and accelerate development;
- Evaluate institutional governance options and draft the ethical usage framework, including code of conduct and data protection protocols.

III. FLAGSHIP INITIATIVES

From Research to Action



Indigenous Leadership & Co-Production

Decades of engagement with Indigenous Peoples have too often reduced cooperation to consultation, real authority to symbolic visibility, leadership to representation. This pattern is not a question of goodwill but of structure — the structure of a polar science that continues to define its priorities, methods and governance without the Peoples who have inhabited and known these territories for millennia. The three Pillar C initiatives are designed to dismantle this pattern: by anchoring research in the real needs of Arctic communities and producing an ethical co-production methodology that can be transferred to all international polar research (Initiative 8); by transforming the territorial presence of those who live and work in the Arctic into a permanent circumpolar observation infrastructure (Initiative 9); by giving Indigenous Peoples' organisations their own institutional anchor within IPY5, so that co-production and co-design become an operational norm and not a declarative intention (Initiative 10).

Together, these initiatives mark a paradigm shift: from consultation to co-production, from representation to effective participation. Each of these initiatives was shaped with the direct involvement of Indigenous Peoples' representatives, who contributed to their design within the workshops — a first, concrete application, at the scale of the Symposium, of the very standard they set out to establish.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 8 •

PAN-ARCTIC COMMUNITY RESEARCH: METHODOLOGICAL CO-PRODUCTION OF KNOWLEDGE

A research approach anchored in the real needs of Arctic communities, whose ambition goes beyond knowledge production: to develop an ethical co-production methodology rigorous and well documented enough to become a durable reference for all polar research.

Pan-Arctic Community Research reverses the usual perspective: polar science designed around the needs of Arctic communities rather than the priorities of research institutions. Instead of bringing researchers into communities to report back results, this initiative positions communities as primary beneficiaries and co-architects of the research: research questions, methods and outcome criteria are defined jointly. The formats in which findings are shared follow the cultural practices of each community (oral narratives, field camps, ceremonies) rather than conforming to academic conventions. This choice is not only ethical: it determines the quality and relevance of results, and builds trust between researchers and communities. Running for eight years across the eight Arctic States, with an annual thematic focus on a different community or theme (food security, permafrost stability, freshwater systems), the initiative anchors each research cycle in a specific local reality. The structure is scaffolding, not an end in itself: to produce a methodological framework robust enough to be adopted directly by universities, national research councils and international bodies, well beyond the initial programme. The guidelines produced through this process, published as formal recommendations, are intended to form its transferable legacy.

«Trust is the foundation of science. This eight-year project will move us from tokenism to true co-ownership, presenting findings not just in papers, but through food sharing and storytelling at the ASSW.»

Vera Kuklina, Workshop 3

«Shared accountability, methodology and authority with Indigenous Peoples are needed to move research into action, especially for Arctic-relevant issues.»

Dalee Sambo Dorough, Workshop 3

Priority for IPY5

Knowledge co-production with Arctic Indigenous Peoples is currently impeded by the absence of a standardised methodology and of documented examples of good practice. IPY5 offers the circumpolar scale necessary to close this gap: by coordinating the approach simultaneously across eight Arctic States, it allows

a methodological framework to be tested, refined and formalised — one that is both rigorous and directly transferable to research and funding institutions.

Key objectives

- Produce scientific knowledge in response to priorities defined by Arctic communities themselves;
Formalise and disseminate a rigorous, documented ethical co-production methodology that universities, research councils and international bodies can adopt;
- Build a community-of-practice network linking Arctic communities, Indigenous Peoples' organisations and researchers across the eight partner States;
- Publish formal recommendations for governments, funding agencies and universities, establishing the conditions for genuinely ethical co-production;
- Present findings annually at Arctic Science Summit Week through culturally appropriate formats.

First steps

The workshop identified the following possible steps. Beyond the initial identification of partners, their relevance, sequencing and design should be determined with participating Indigenous Peoples' organisations and institutions through an equitable and reciprocal co-production process.

- Build on the co-design already under way: the initiative was itself shaped at the Monaco Polar Symposium, jointly with representatives of Arctic Indigenous communities, and this first stage should be documented as the opening step of the very process the initiative sets out to formalise;
- Begin by identifying partners in Indigenous communities in each of the eight Arctic states, drawing on existing trusted relationships;
- Subject to the priorities and agreement of participating Indigenous communities, consider a first immersive field stay (community camp or territory workshop) to map local expertise and co-define first-year research questions;
- Jointly draft and validate the methodological co-production protocol with the first partner communities, in a format usable by funding institutions;
- Explore, with participating partners in Indigenous communities, whether a community-of-practice network, mobilising local councils, Indigenous Peoples' organisations and research teams across the eight states would be useful and appropriate.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 9 •

PAN-ARCTIC COMMUNITY OBSERVATION NETWORK: SUSTAINED COMMUNITY-LED MONITORING

A circumpolar network that turns the presence of those who live and work in the Arctic into a permanent observation infrastructure — to produce continuous, wide-coverage field monitoring directly useful to climate models and community security.

The Pan-Arctic Community Observation Network mobilises those already present on Arctic land and waters (Indigenous land users, maritime professionals and staff of national monitoring programmes) as the backbone of a continuous circumpolar observation system. By integrating their existing movements into systematic data collection, the initiative builds a spatial coverage that conventional scientific programmes cannot achieve alone.

In practice, this means activating networks that are already operational (the Sirius patrol, the Danish military unit monitoring northeast Greenland; the coast guard services of Arctic States; Indigenous harvesting and travel routes) and adding shared data collection and transmission protocols. National collation points ensure their formatting before integration at a circumpolar scale. The observations thus produced feed directly into climate models, improve weather forecasts and reinforce emergency preparedness. The network rests on a principle of reciprocity: communities that contribute data receive localised forecasts and risk alerts in return. This is not incidental: it determines buy-in to the network and guarantees its continuity. The initiative is designed to endure beyond IPY5, embedded in national structures and secured by durable transnational funding commitments.

«The project establishes a sustained monitoring network, planned to endure after IPY5 and provide continued and ongoing monitoring in the Arctic.»

Federica Scarpa, Workshop 3



Priority for IPY5

The Arctic is changing at an unprecedented pace, but its monitoring remains fragmented between uncoordinated national programmes. Standardising protocols, connecting existing networks and establishing shared governance among the eight Arctic States requires a multilateral frame that no single State can provide — and that IPY5 offers. The window is narrow: the changes under way require continuous monitoring, not decadal snapshots.

Key objectives

- Survey and interconnect existing circumpolar monitoring activities (patrols, fishing and hunting networks, coast guards) within a common framework;
- Establish shared data collection, transmission and harmonisation protocols across the eight Arctic States;
- Integrate community observations into circumpolar climate models and early warning systems;
- Implement a feedback mechanism for contributing communities: localised forecasts, risk alerts, documented impact of their observations;
- Embed the network in long-term transnational funding structures to guarantee its durability beyond IPY5.

First steps

- Conduct a mapped inventory of existing monitoring activities (patrols, hunting and fishing routes, coast guard networks) in each of the eight Arctic States;
- Define initial thematic priorities (greenhouse gas fluxes, sea ice dynamics, freshwater fluxes) and draft the first shared data collection and harmonisation protocols;
- Train the networks identified in collection and transmission methods, in person and online;
- Deploy the first feedback tools (localised forecasts, alerts) in pilot communities to anchor their participation for the long term;
- Engage Arctic States and relevant ministries to formalise the network's place in national programmes and initiate negotiations on transnational funding commitments.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 10 •

INDIGENOUS PEOPLES' IPY5 SECRETARIAT

An institutionally recognised mechanism for Indigenous participation within IPY5 — so that co-production and co-design of polar knowledge become the norm, and so that this norm applies to all subsequent international polar cycles.

The Indigenous Peoples' IPY5 Secretariat is designed to endow Indigenous Peoples' organisations and institutions with their own institutional anchor within the IPY governance architecture, guaranteeing full and effective participation at all levels of the process. Its role is not limited to representation; it is operational: co-producing knowledge, co-designing projects, and assessing whether any IPY5 project conforms to the principles it defines. By bringing together Indigenous researchers, Knowledge holders and Indigenous Peoples' organisations as full actors — not as consulted parties — it gives practical form to the principle that no research on Indigenous Peoples can be conducted without them. Meaningful participation by Indigenous communities faces two categories of obstacles stemming from the same structural problem: capacity constraints and administrative barriers. First, sitting in forums with calendars designed around academic and diplomatic agendas imposes a real cost on Indigenous Peoples' organisations (in personnel, time, funding and forgone subsistence activities) that their structures cannot absorb without specific resources. Second, fund eligibility criteria, submission deadlines and reporting requirements were designed for university institutions or national agencies with dedicated administrative teams — and de facto exclude organisations with limited human resources. The Secretariat is given a direct responsibility on both fronts: to create the necessary capacity-building mechanisms, and to obtain from funding agencies a revision of their protocols to make them directly accessible without an institutional intermediary. The argument is not only ethical: polar science co-designed with Indigenous Peoples produces better results — more relevant research questions, data more firmly grounded in territorial realities, and stronger legitimacy within the communities concerned. The Secretariat's ambition also extends beyond the circumpolar region: its launch with Arctic Indigenous Peoples' organisations as founding members is intended to open the way to an extension covering Indigenous Peoples' organisations in Antarctic Treaty States and, ultimately, Indigenous communities in low-latitude regions directly affected by polar change.

Priority for IPY5

Arctic Indigenous Peoples are among the first affected by polar change, but remain structurally excluded from the scientific and political decisions that concern them. Creating a secretariat at the launch of IPY5 aims to correct this asymmetry durably, laying the foundations for ethical, decolonised governance capable of establishing itself as a norm for all subsequent cycles.

Key objectives

- Establish an institutionally recognised structure for Indigenous participation, integrated from the launch of IPY5, bringing together Indigenous researchers, Knowledge holders and Indigenous Peoples' organisations;
- Anchor co-production and co-design as the working method at all levels of the governance structure, and submit all flagship initiatives to an assessment of their conformity with the principles it defines;
- Implement a capacity-building mechanism with unrestricted funding, covering the real costs of participation by Indigenous Peoples' organisations;
- Obtain from national and international funding agencies a revision of their eligibility criteria and access protocols, to make them directly accessible to Indigenous Peoples' organisations;
- Make the structural integration of Indigenous Peoples an enforceable norm in all future international polar programmes, progressively extending the Secretariat to Indigenous Peoples' organisations in Antarctic Treaty States and low-latitude communities affected by polar changes.

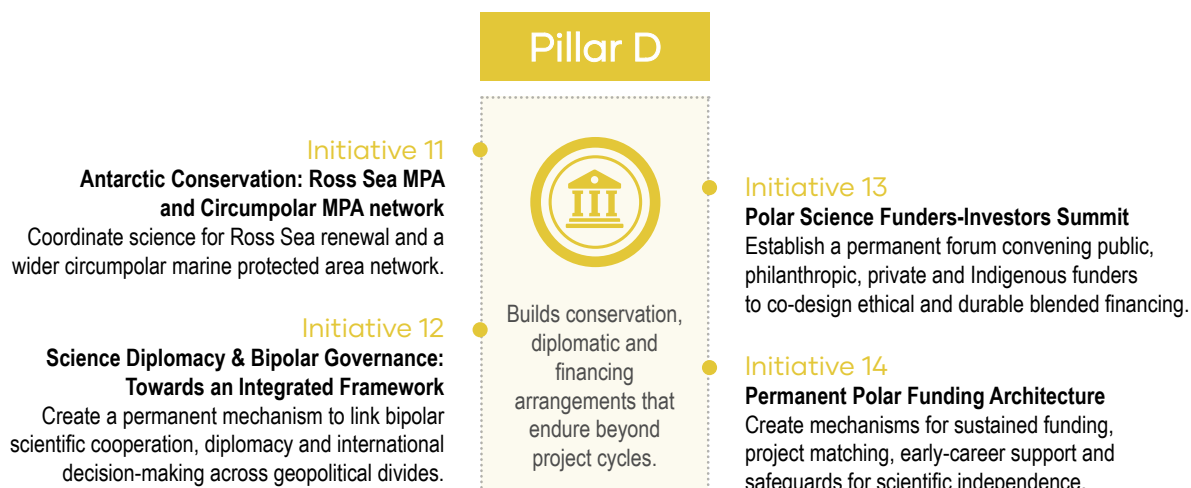
First steps

The first steps emerged from a co-production process. They should be seen as initial directions for an Indigenous-led process, to be further shaped by Indigenous Peoples' organisations according to their own priorities and governance, with IPY5 partners providing recognition, resources and access to decision-making

- Engage interested Indigenous Peoples' organisations to determine how an Indigenous Peoples' IPY5 Secretariat should be established, and to identify the organisations and representatives who should lead its development;
- Secure launch funding from national governments and philanthropic sources in the first twelve months;
- Officially launch the Secretariat with Arctic Indigenous Peoples' organisations as founding members, defining from the outset the modalities for extension to Indigenous Peoples' organisations in Antarctic Treaty States;
- Define and validate co-design and co-production protocols applicable to all IPY5 flagship initiatives;
- Deploy the capacity-building mechanism in the first member organisations, covering direct participation costs (travel, personnel, forgone activities);
- Open a formal, documented dialogue with major funding agencies to examine the revision of their eligibility criteria and fund access procedures.

III. FLAGSHIP INITIATIVES

From Research to Action



Governance & New Architectures

Polar science suffers from two distinct but equally paralysing structural deficits. The first is institutional: despite the existence of scientific coordination bodies, intergovernmental forums and circumpolar legal frameworks, no permanent network treats both poles as the interdependent system they form, or has the mandate to genuinely influence international decisions. The second is financial: the capital capable of supporting a transformative IPY5 programme exists in the global economy, but polar science does not yet have the channels to reach it — for lack of a structured network linking its needs to available funders. These two deficits reinforce each other: governance without a financial base remains rhetoric; funding without a governance framework remains fragmented. This pillar addresses them jointly, building the new architectures — of governance and of funding — that polar science lacks: the aim is not to create additional centralised structures but to establish networks capable of connecting what exists, mobilising what is available and lasting over time. The four initiatives follow in logical order: ensuring the durability of the world's largest marine protected area and extending a circumpolar conservation network in the Antarctic (Initiative 11); building the missing integrated bipolar institutional framework (Initiative 12); bringing funders together to co-build the blended finance architecture that IPY5 demands (Initiative 13); then institutionalising the permanent mechanisms that will survive the cycle (Initiative 14).

Polar science's capacity to honour its commitments beyond changes of government and budget cycles rests on these governance and funding networks.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 11 •

ANTARCTIC CONSERVATION: ROSS SEA MPA AND CIRCUMPOLAR MPA NETWORK

Building the scientific base that will enable the renewal of the world's largest marine protected area and the extension of the model to a circumpolar network of marine protected areas — demonstrating that international conservation remains possible under geopolitical pressure.

The Ross Sea Research Coordination Network is the scientific infrastructure on which that renewal depends. It coordinates the circumpolar research needed to generate the evidence base that diplomatic negotiations require, and to make the Ross Sea the starting point of a network of connected MPAs spanning the Southern Ocean. Created in 2016 by CCAMLR, the Ross Sea MPA is the product of a remarkable multilateral negotiation: it brought together twenty-four countries and the European Union, including China and Russia — which had until then blocked all protection proposals in these waters — around an unprecedented consensus. Its significance is as much diplomatic as ecological: it demonstrates that international conservation frameworks remain possible between nations that do not share the same priorities. As international cooperation mechanisms face mounting pressures, Antarctic science continues to offer one of the rare arenas where cooperation of this kind is maintained. This diplomatic asset should be made explicit to governments, foundations and institutions whose mandate includes international stability. The Ross Sea has a singular ecological characteristic (shared with the Weddell Sea): climate projections indicate that it will remain one of Antarctica's coldest regions, making it a climate refuge offering marine life the best chances of adaptation. This makes it a strategic conservation priority: protecting the Ross Sea today means preserving one of the few Antarctic ecosystems capable of maintaining its ecological function in the decades ahead. The MPA can only fulfil its conservation objectives through active management — which requires continuous observations, including winter data, and a research infrastructure coordinated at an international scale. The initiative draws on the Ross Sea Research Coordination Network (RCN), launched in October 2025 at the annual CCAMLR meeting in Hobart — a collaborative, international and interdisciplinary network already bringing together participants from twenty-two States. The Ross Sea MPA must undergo formal review in 2027 and its durability requires sustained commitment through 2052. Three additional areas are currently subject to MPA proposals under negotiation at CCAMLR: the Weddell Sea (whose preserved ecosystems form a natural laboratory for studying the effects of climate change), East Antarctica (which harbours critical breeding and feeding grounds for seals and penguins) and the Antarctic Peninsula (one of the most rapidly warming regions on the planet, where the krill fishery is expanding rapidly). Together, if adopted, they would protect 26% of the Southern Ocean's surface. Their

adoption remains blocked by the opposition of certain CCAMLR members, making the science produced by IPY5 a direct lever for breaking the deadlock. Without the scientific evidence base that the network will generate, the case for the MPA's continuation cannot be made. Its financial sustainability rests on a blended finance model already proven in the Ross Sea: philanthropy provides the initial capital and demonstrates feasibility, after which other mechanisms (blue bonds, sovereign funds, national contributions) progressively consolidate to ensure long-term continuity.

Priority for IPY5

The formal review of the Ross Sea MPA in 2027 is a diplomatic milestone as much as a scientific one. Without an evidence base generated before this deadline, the case for its durability — and for the extension of the MPA network — cannot be built. IPY5 is the only framework capable of mobilising the necessary international scientific coalition in time, building on the momentum the RCN has already created.

Key objectives

- Produce the first systematic mapping of Antarctic biodiversity, moving from point-in-time assessment to continuous long-term monitoring;
- Generate the evidence base necessary for MPA renewal through 2052;
- Establish a circumpolar network of connected MPAs whose geography is defined by ecological corridors rather than administrative boundaries;
- Demonstrate the value of the Ross Sea as a climate refuge and operational model of international conservation diplomacy.

First steps

- Formally recognise and endorse the RCN within the IPY5 framework;
- Deploy the first phase of coordinated circumpolar science centred on habitat connectivity, with observation protocols explicitly including winter data;
- Begin the first systematic Antarctic biodiversity mapping and establish continuous monitoring protocols;
- Conduct the first formal MPA review in 2027 and communicate results to CCAMLR and UNEP;
- Extend the work to other candidate areas and accelerate adoption of the three MPA proposals currently before CCAMLR;
- Convene a dedicated legal working group to integrate BBNJ Agreement mechanisms into the circumpolar network governance framework;
- Further develop the blended finance model to support the Ross Sea MPA.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 12 •

SCIENCE DIPLOMACY & BIPOLAR GOVERNANCE: TOWARDS AN INTEGRATED FRAMEWORK

Creating the permanent mechanism that is missing, one capable of treating the Arctic and the Antarctic as an interdependent system — so that polar science carries genuine weight in international decisions, beyond geopolitical fractures.

The Arctic and the Antarctic have distinct, poorly coordinated governance structures. No permanent mechanism is mandated to treat them as a common system. This initiative aims to build an integrated bipolar governance framework, connected to intergovernmental organisations (IPCC, WMO, UNEP, UNESCO), capable of feeding polar science into decision-making processes at all scales, with a structural engagement capacity that does not depend on the goodwill of individual States.

Its first operational ambition is the organisation of a joint meeting between the Arctic Council and the Antarctic Treaty Consultative Parties, to produce documented political commitments on an integrated bipolar agenda. Its second ambition is historical in scope. The Antarctic Treaty was born of the Cold War context, demonstrating that scientific cooperation can produce law where diplomacy fails. IPY5 operates in a different but analogous setting: a context of geopolitical fragmentation where polar science remains one of the rare spaces of effective dialogue between nations whose interests diverge sharply — as shown by the capacity to bring China and Russia into conservation commitments within CCAMLR. This diplomatic function of polar science must be explicitly documented and presented as a structured argument for governments whose mandate includes international stability.

Two complementary instruments should be placed on the agenda of this initiative. The first is the creation of a bipolar scientific assessment mechanism (analogous to the IPCC for polar regions) capable of regularly synthesising the state of circumpolar knowledge and feeding international negotiations with recognised scientific authority. The second is the negotiation of formal agreements with third countries that are neither members of the Arctic Council nor signatories of the Antarctic Treaty, whose influence and interests in polar regions are growing, and whose integration into data-sharing frameworks is a prerequisite for any genuinely circumpolar governance.

«Science Diplomacy for security — a rapidly warming Arctic threatens security, particularly for Indigenous communities. The long-term legacy is the habitability of the Arctic environment under continued and enhanced pressure.»

Thomas Stocker, Workshop 3

Priority for IPY5

Current geopolitical tensions make circumpolar coordination both more difficult and more necessary than ever. IPY5 is an exceptional opportunity to formalise governance instruments that previous cycles failed to produce, and for demonstrating, with supporting evidence, that polar science is an active lever for international cooperation. These structures take time to build — and the protection decisions that depend on them are being made now.

Key objectives

- Mandate IPOS (the International Platform for Ocean Sustainability) to develop an integrated bipolar governance roadmap, in consultation with IASC, SCAR, the Arctic Council and the ATCM;
- Organise a joint Arctic Council / Antarctic Treaty Consultative Parties meeting to produce documented political commitments on a common bipolar agenda;
- Document the diplomatic function of polar science and make it a structured argument for governments and international security institutions;
- Initiate exploratory dialogue on a circumpolar legal protection instrument, drawing on existing multilateral precedents;
- Strengthen and connect existing structures (IASC, SCAR, IPOS) without creating competing bodies.

First steps

- Bring together IPOS, IASC, SCAR, the Arctic Council and the ATCM to formally launch the bipolar governance roadmap mandate and set the timetable;
- Identify focal points within the Arctic Council and ATCM, prepare the agenda and convene the joint meeting before 2029;
- Produce a first framing document on polar science diplomacy — surveying documented precedents and arguments for governments and international security institutions;
- Initiate exploratory dialogue on a circumpolar legal protection instrument, drawing on the BBNJ Agreement precedent as a model of recent multilateral negotiation.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 13 •

POLAR SCIENCE FUNDERS-INVESTORS SUMMIT

A permanent forum bringing together all potential funders of polar science to build the blended and durable funding architecture that IPY5 demands — so that the capital available in the global economy finally reaches the polar regions on a scale commensurate with the urgency.

The Funders-Investors Summit starts from a simple observation: the polar science funding problem is not one of resources but of access. Existing mechanisms were designed for a world of stable national budgets and predictable political support — two conditions that cannot be taken for granted in the period leading up to 2032. Multilateral development banks carry an explicit mandate to reduce climate risks for developing countries, making them a natural channel for funding polar science with global impact; the case for their engagement must be grounded in that value, not in philanthropic responsibility alone. Blended finance models — linking national, philanthropic and private sources — multiply the leverage of each contribution.

A Funders Summit: Investors for Better Biodiversity — a strategic forum bringing together science ministers, national agencies, philanthropic funders and Indigenous Peoples' organisations, designed to shift investment strategies towards polar biodiversity and science — was identified as a flagship initiative within the IPY5 preparatory process. The Funders-Investors Summit broadens that ambition: by bringing in impact investors, reinsurers and multilateral development banks alongside philanthropists, it aims to build a funding architecture that is not limited to traditional sources. The Polar Donors Roundtable, launched at UNOC 2025 by the Prince Albert II of Monaco Foundation and several founding partners, is a first philanthropic circle dedicated to dialogue among funders and to aligning priorities for the polar regions. The Summit takes that momentum further.

Private sector engagement in the funding of polar science raises questions that call for a common framework: what safeguards for scientific independence in the face of donors' priorities, how to prevent structural dependency on volatile funding, and on what conditions to accept or decline a partnership. The Summit is the appropriate venue to debate these questions in advance — before financial flows settle them by default.

«A permanent shift toward a mixed-model funding approach with institutionalized relationships between private sector «champions» and polar communities to ensure sustainable, long-term investment.»

Mads Qvist Frederiksen, Workshop 3

Priority for IPY5

National polar research budgets are under pressure in an uncertain geopolitical context, and the private and philanthropic sectors remain largely under-mobilised for lack of a structured engagement framework. IPY5 offers the legitimacy and visibility necessary to organise this forum at a circumpolar scale and establish durable financial partnerships before the programme enters its operational phase.

Key objectives

- Bring together in a permanent forum all categories of potential funders: national agencies, philanthropists, impact investors and Indigenous Peoples' organisations;
- Establish a durable blended finance model, combining national, international, philanthropic and private sources;
- Engage at least five major private and philanthropic funders on long-term commitments;
- Adopt a set of ethical principles defining the conditions for private sector engagement and safeguards for scientific independence, co-designed with Indigenous Peoples' organisations.

First steps

- Develop the economic case for investment in polar science, targeting reinsurers and multilateral development banks as priorities;
- Consolidate the Polar Donors Roundtable as the operational foundation of the Summit and expand its scope to all funder categories (national agencies, reinsurers, multilateral development banks) beyond its founding philanthropic members;
- Begin outreach to major private and philanthropic investors and open initial discussions on long-term commitments;
- Identify at least five partners ready for formal commitments before the operational launch of IPY5;
- Produce a first working document on the ethical framework for private funding, submitted for consultation to the relevant scientific communities and Indigenous Peoples' organisations.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 14 •

PERMANENT POLAR FUNDING ARCHITECTURE

Permanent funding mechanisms, independent of political cycles, so that polar science has a predictable, ethically governed base capable of mobilising all available funders — from national agencies to philanthropists, from reinsurers to mayors of major coastal cities.

The Permanent Polar Funding Architecture gives concrete form to the Polar Horizon Funding Initiative, identified within the IPY5 preparatory process as the structural mechanism missing from polar science: an architecture capable of coordinating heterogeneous financial flows over the long term, whereas one-off events, however mobilising, cannot on their own produce the necessary continuity. It comprises four components: a circumpolar fund with blended endowment, a project-to-funder matching mechanism, dedicated funding lines for early-career researchers, and a set of binding ethical principles. Its first component is a permanent circumpolar fund with a blended endowment, inspired by the WMO funding partnership model: States, national agencies and international institutions commit to contributions proportional to their capacities, guaranteeing a predictable, multi-annual base. The fund would also receive structured philanthropic contributions and revenues from innovative mechanisms, including voluntary carbon offsets directed towards polar research — a lever connecting it to corporate environmental responsibility strategies. Its second component is a matching mechanism, pairing scientific projects that national resources cannot fund with private and philanthropic funders seeking to direct their contributions towards evaluated proposals.

Two constituencies remain absent from polar funding. Mayors of major exposed coastal cities (Miami, Rotterdam, Dhaka, Lagos, Jakarta) have a direct financial interest in co-funding the science that reduces uncertainty on their infrastructure risks: they are natural co-funders not yet mobilised. Early-career researchers are absent for the opposite reason: for them, IPY offers a peak of opportunity regularly followed by a sharp decline — one that only a stabilisation mechanism built into the fund's design can prevent. The ethics of funding — first developed at the Summit (Initiative 13) — finds its permanent institutional anchor here. The principles collectively agreed there are adopted as a binding standard and integrated into the eligibility criteria of the circumpolar fund — the condition of a financial architecture that does not sacrifice scientific independence to the diversification of its sources.

«A Polar Horizon Funding Initiative should bring together private and public funding to identify synergies and opportunities — and direct high-scoring proposals that can't be funded by national resources towards other sources of funding.»

Jeremy Ely, Workshop 2

Priority for IPY5

Polar science funding remains fragmented between uncoordinated national programmes, subject to changes of government and insufficiently connected to available private and philanthropic sources. IPY5 represents the moment to establish permanent structures before the programme enters its operational phase — funding architectures take time to build, and this work cannot wait until 2032.

Key objectives

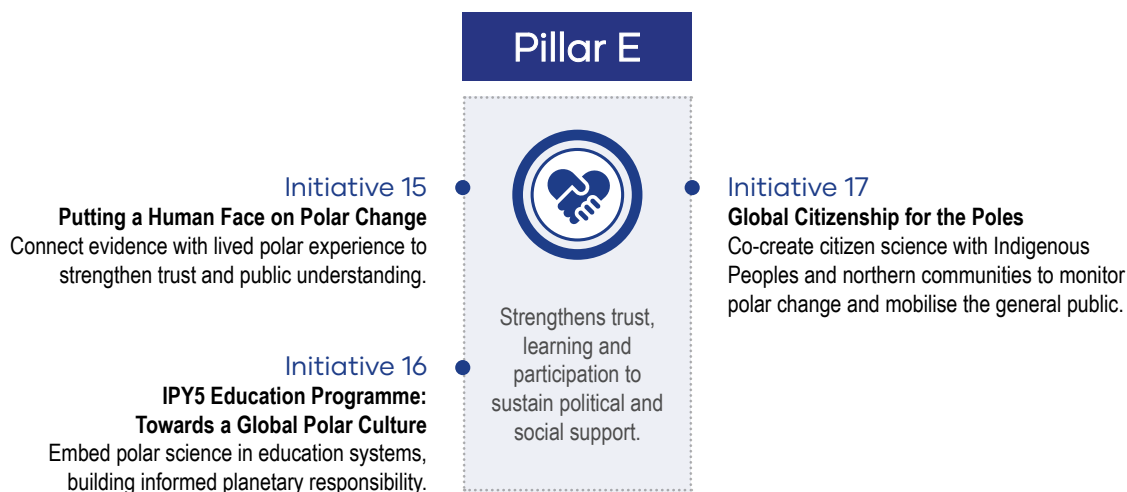
- Create a permanent circumpolar fund with a blended endowment, guaranteeing a predictable, multi-annual funding base backed by national and philanthropic contributions and by innovative mechanisms;
- Deploy the Polar Horizon Funding Initiative matching mechanism between positively evaluated scientific projects and private or philanthropic funders, subject to independent scientific evaluation;
- Integrate mayors of major exposed coastal cities as structural co-funders, based on a cost-benefit case adapted to their planning horizons;
- Create a dedicated funding line for early-career researchers, built into the fund's design, including funded doctorates and bridge contracts between projects;
- Adopt a set of binding ethical principles on private funder engagement and the protection of scientific independence, co-designed with Indigenous Peoples' organisations.

First steps

- Mandate a dedicated working group to design the permanent circumpolar fund architecture (statutes, contribution mechanism, governance rules and eligibility criteria);
- Develop and test a prototype of the Polar Horizon Funding Initiative matching mechanism on a first set of highly rated but unfunded IPY5 proposals;
- Conduct a first series of targeted meetings with mayors of priority coastal cities, using an adapted cost-benefit case;
- Integrate the ethical principles agreed at the Summit into the fund's criteria, in co-design with Indigenous Peoples' organisations and the Secretariat (Initiative 10);
- Open the first dedicated funding lines for early-career researchers, with a financing mechanism ensuring continuity between the end of one project and the start of the next.

III. FLAGSHIP INITIATIVES

From Research to Action



Knowledge, Narrative & Citizen Engagement

The distance between the poles and the rest of the world is not only geographical; it is cognitive and political. Yet this distance does not reflect the reality of interdependencies: sea level rise, the destabilisation of precipitation patterns, the collapse of marine food chains directly concern billions of people who have never seen sea ice. The problem is not an evidence deficit: polar science has produced an unequalled body of knowledge. It is a communication deficit: solid scientific results fail to reach decision-makers and citizens as a reality that directly concerns them.

The three Pillar E initiatives respond to this deficit: integrating the lived experience of Arctic communities as scientific data in its own right and developing a permanent capacity for translation for decision-makers and citizens (Initiative 15); anchoring polar science in national educational systems so that the next generation of citizens and elected officials learns to read polar realities (Initiative 16); and mobilising the general public as a concrete actor in the monitoring of ongoing changes, via a citizen science platform co-created with Indigenous communities (Initiative 17).

These three initiatives are the lever by which IPY5 transforms polar knowledge into shared awareness and political demand.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 15 •

PUTTING A HUMAN FACE ON POLAR CHANGE

Making Arctic voices heard in polar science — so that its results reach decision-makers and citizens as a human reality, and not as an abstract body of evidence.

Climate science knows how to describe with precision what is happening in the physical world. What it has produced far less effectively is a narrative connecting this evidence to the lived experience of the communities most affected: Arctic families whose coastlines are eroding, Knowledge holders whose long-established seasonal calendars have been disrupted, young people in northern territories growing up in a transformed world. The result is a crisis of attention and trust: even where evidence is irrefutable, its political reach is undermined by its failure to reach people as a human reality. As geopolitical priorities crowd out other agendas, climate change risks losing its hard-won international attention — and this initiative directly addresses that risk.

The response works on two fronts: method and communication. Methodologically, this initiative sets out to integrate qualitative data systematically (personal testimonies, oral histories, community narratives) into formal polar science outputs, including assessments that feed international policy processes. It stresses the social and cultural dimension of change: warming does not only disrupt physical systems, it unsettles the cultural, dietary and identity foundations of northern communities. On the second front, it aims to build within research institutions a permanent capacity for scientific mediation — the two-way translation between research and non-scientific audiences — drawing on digital tools, social media and school curricula. Driven by Arctic voices, influencers and cultural actors, a coordinated «But no one told me?» campaign gives concrete form to this ambition: mobilising audiences without traditional connections to the poles and rebuilding trust in science where it is eroding.

«We want to see evidence-based narratives that develop trust in science.»

Gary Wilson, SCAR, Opening Addresses

«We are the last generation that experienced seasons before climate change — how do we get the next generation to understand that?»

Grace Cordsen, Polar-Global table, Workshop 1

Priority for IPY5

Polar science has the evidence. What it lacks is the institutional capacity to translate it into narratives, training and tools accessible to decision-makers and citizens. IPY5 offers the visibility and legitimacy to close this gap, by building into the design of each flagship initiative a mediation strategy for non-scientific audiences, and by making Arctic testimonies a constitutive element of the science produced, not an added communication layer.

Key objectives

- Systematically integrate qualitative data into official polar science assessments and IPY5 outputs;
- Build a documentary base of testimonies and community narratives from Arctic and coastal regions;
- Give research institutions a permanent capacity for scientific mediation, covering decision-makers, teachers and young audiences;
- Mobilise influencers, artists and cultural actors to carry polar issues to audiences without traditional connections to the poles;
- Integrate polar issues into school curricula to form a next generation of citizens and decision-makers aware of circumpolar realities.

First steps

- Survey existing methodological frameworks for integrating qualitative data and draft a first pilot protocol applicable to IPY5 assessments;
- Build a documentary base of existing testimonies (Arctic voices, coastal communities, Knowledge holders) and launch a first series of media productions targeting decision-makers and institutions;
- Establish within partner research institutions a scientific mediation function, including protocols for respecting the rights of contributing communities;
- Initiate dialogue with the education ministries of Arctic States to integrate polar issues into school curricula.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 16 •

IPY5 EDUCATION PROGRAMME: TOWARDS A GLOBAL POLAR CULTURE

A global polar education programme, developed with education ministries, so that the next generation of citizens, elected officials and decision-makers understands the poles as a planetary reality that directly concerns them.

The citizens who will vote, invest and govern in the coming decades are today in school or at university. Their capacity to grasp polar issues — and to demand decisions commensurate with them — depends on the place that polar science occupies in their training. Today that place is virtually non-existent in most national curricula, and without a common institutional framework, no coordinated change is possible at an international scale.

The IPY5 Education Programme creates this framework. Working directly with education ministries, it develops a global Polar Resource Book and a digital toolkit: materials accessible to all age groups, designed to integrate into existing disciplines, from geography to economics, from biology to civic education. Young ambassadors carry the programme into their communities; apps and social media broaden its reach to populations distant from polar regions. It is designed to outlast IPY5: permanent national committees bringing together teachers, scientists and economic actors keep curricula up to date well beyond the programme cycle.

Polar conservation at the required scale demands that people who have never seen the Arctic or the Antarctic regard them as an integral part of their reality. This is precisely the virtuous circle that IPY5 seeks to trigger through education — the one that forestry engineer and conservation advocate Baba Dioum identified as foundational: «In the end, we will conserve only what we love; we will love only what we understand; and we will understand only what we are taught.» To teach the poles is to create the political conditions for their protection.

«We need to co-design and co-produce knowledge leading to solutions — pivoting the science model, and educating the next generation of polar scientists towards transdisciplinary science.»

Salvatore Aricò, CEO of the International Science Council, Opening addresses

Priority for IPY5

National educational systems remain silos, hard to change without a collective framework of the scale of IPY5. The students who will be in charge during the critical decades of climate change are in training today. IPY5 offers the legitimacy to engage education ministries at an international scale and produce shared resources that will survive the programme cycle.

Key objectives

- Develop a global Polar Resource Book and digital toolkit, adapted to all age groups and designed for direct integration into existing national curricula;
- Engage at least five pilot education ministries for formal integration into national curricula;
- Launch an international young polar ambassadors programme, connecting polar and non-polar communities;
- Establish permanent committees bringing together teachers, scientists and business representatives, guaranteeing curriculum updates beyond IPY5;
- Build a continuous polar literacy framework (from primary school to university) that educates citizens and decision-makers about circumpolar realities.

First steps

- Analyse existing national educational systems to identify entry points into curricula and priority ministerial partners;
- Develop a first working version of the Polar Resource Book with Polar Educators International, based on a pilot theme;
- Formalise commitments from five pilot education ministries and define with them the arrangements for curricular integration;
- Launch the ambassadors programme with a first group of young people representing polar and non-polar communities, before the official IPY5 launch.

III. FLAGSHIP INITIATIVES

From Research to Action

Initiative 17 •

GLOBAL CITIZENSHIP FOR THE POLES

A global citizen science project co-created with Indigenous communities and residents of northern territories — to mobilise the general public around polar issues and make them concrete actors in the monitoring of ongoing changes.

Citizen science is an under-used lever for both polar research and the public acceptance of climate action. Via accessible mobile technologies and simplified protocols, participants contribute observations (mammal movements, sea ice extent, local temperature anomalies) that directly feed regional and global scientific understanding. Its premise is that taking part in the scientific process is itself the most effective way to build lasting understanding and counter climate scepticism.

The platform is designed to be accessible to all, and its content is co-developed with Indigenous communities and residents of northern territories. A feedback mechanism returns to each contributor the concrete impact of their observations — a condition of lasting engagement. To reach audiences without traditional connections to the poles, influencers, digital ambassadors and cultural institutions (including natural history museums) are mobilised as relays. Direct connections between young people from non-polar regions and peers in circumpolar and Indigenous communities link those living through the change with those who will decide on it. Existing platforms such as mitforschen.org (an German citizen science portal grouping many active projects across multiple disciplines) are natural partners for deployment and anchoring in already active networks. The governance model is anchored in IUCN, with formal partnerships alongside organisations such as WWF.

«By engaging cross society and bringing in new audiences, they are therefore more likely to believe the science and push back on the rhetoric that it is of no concern.»

Veryan Vere Hodge, Polar-Global table, Workshop 3

Priority for IPY5

The protection of polar regions at the required scale depends on a social and political demand that the scientific community alone cannot generate. IPY5 offers the visibility and legitimacy to launch a globally ambitious citizen science platform, drawing on networks and technologies now available — and building now the popular support that the decisions of 2032 will require.

Key objectives

- Co-create with Indigenous communities and northern residents a citizen science platform, accessible via apps and social media, with standardised collection protocols;
- Collect observations contributing to regional and global scientific understanding, and guarantee documented feedback on the impact of each contribution;
- Mobilise influencers, digital ambassadors and cultural institutions to reach audiences for whom the poles remain a distant reality;
- Establish structured connections between young people from non-polar regions and peers in circumpolar and Indigenous communities;
- Build a durable polar citizenship, capable of broadening the political support base for circumpolar action.

First steps

- Conduct an audit of existing citizen science platforms and identify integration and partnership opportunities;
- Pilot a defined monitoring protocol and contributor feedback mechanism to demonstrate feasibility;
- Secure formal commitment from IUCN and WWF as institutional partners;
- Develop an international communication strategy defining target audiences, channels and formats;
- Launch the platform with a digital ambassadors programme targeting young people from non-polar regions as a priority, establishing direct connections with peers in circumpolar and Indigenous communities.

INTERIM CONCLUSION



THE MONACO POLAR SYMPOSIUM'S OVERALL CONTRIBUTION

A shared space of thought for both poles

The three preceding parts reflect the progression of the Symposium through three thematic sessions involving all 170 participants, structured around the transition from Research to Action. The first set the direction, identifying the main findings and ambitions for the Fifth International Polar Year (IPY5); the second examined the means required, outlining a financial architecture capable of supporting this ambition at the necessary scale; the third translated these priorities into seventeen flagship initiatives proposed for further development. The three parts move from diagnosis to means, and from means to action — but what binds them together is not only that progression: it is a method.

The progression rested on a collective working method. Far from a succession of presentations, the Symposium created a deliberative form of collective intelligence, in which proposals were developed, discussed and refined by participants. The workshops brought together different disciplines, institutions and communities, helping to clarify both the opportunities identified and the conditions required to take them forward.

One hallmark of the three days was that the Symposium considered Arctic and Antarctic perspectives together. Without overlooking the different contexts, governance systems and populations of the two regions, this approach

highlighted their interconnections and the consequences of those interconnections for climate, the ocean, biodiversity and societies.

Convening these voices and perspectives was a work of design and orchestration that the Prince Albert II of Monaco Foundation, SCAR and IASC carried from beginning to end. By conceiving the Symposium as a space of convergence rather than of mere exchange, the Foundation's Polar Initiative exercised its convening role, which alone makes possible a collective voice commensurate with the planetary risks that science documents.

One central lesson emerges from this work: the initiatives cannot deliver lasting results if they are developed in isolation. Their implementation depends on cross-cutting conditions that connect them. That is the purpose of Part IV. Conceived and written after the event, in the very course of preparing this synthesis, it constitutes the Prince Albert II of Monaco Foundation's own contribution. It does not lengthen the list of initiatives: it offers a reading of them, drawing from the proceedings as a whole the deeper levers on which the transformation will rest. By connecting what the workshops had of necessity addressed separately, this cross-cutting analysis brings to light the overall architecture without which the move to action would remain incomplete. Part IV sets out to carry through that movement, from the profusion of proposals to the conditions of their realisation.

IV. ANALYSIS – LEVERS OF TRANSFORMATION

Acting at the Scale of the Poles

The polar regions are undergoing an unprecedented transformation. The sciences that document this transformation have reached an unequalled level of precision and a growing coherence capable of integrating planetary parameters — from climate models to ocean data — in real time. And yet the gap between what polar research establishes and what political decisions reflect, both nationally and internationally, has never been more concerning. Closing this gap — turning research into action — is the central ambition of IPY5, and the subject of the present analysis.

This ambition presupposes structural conditions that no single initiative, taken in isolation, can create. Certain levers, which cut across the entire programme, belong neither to a particular discipline, nor to a particular region, nor to a single initiative: they determine IPY5's very capacity to produce effects at planetary scale. Activating them systemically is one of the most important tasks of the preparatory process for this new International Polar Year — and the condition for it to bring together a coalition of actors and resources equal to the ambitions it has set.

Research to Action, the guiding principle of the Symposium, captures the whole of the challenge to be met: the task is less to accumulate knowledge about the poles than to translate that

knowledge into informed decisions, governance architectures, sustainable financial commitments, and a degree of social buy-in broad enough to have a real and lasting impact on the future of the polar regions and, by extension, on the balance of the Earth system. This shift from research to action requires a systemic approach capable of connecting fundamental levers, none of which can be left on the margins of the process as IPY5 takes shape.

The first lever, epistemological and political in nature, concerns the planetary scope of polar realities, whose dynamics determine the very habitability of the Earth. The second lever, one of architecture, lies in strengthening the links between research, financing and policy: polar science generates impact only if its connections to public decision-making, financial commitments, and implementation are explicitly rethought at a scale commensurate with planetary stakes — something the 2032 horizon makes both urgent and possible. The third requirement, ethical and practical in nature, places inclusion at the centre: how can this science be produced together with all those it concerns — every nation, whether historically a producer of polar science or directly affected by its transformations, Indigenous Peoples, and the general public — and cease to be organised in silos, between disciplines, between stakeholders, and even between the two poles, which together nonetheless form a single, unified system?



IV. ANALYSIS – LEVERS OF TRANSFORMATION

Acting at the Scale of the Poles

1

Recognise Shared Responsibilities for the Polar Regions

Polar science is not one geographical speciality among others – it is one of the key instruments for understanding, anticipating, and deciding in the face of planetary risk. IPY5's transformative ambition proceeds from this conviction. As Prof. Robert DeConto (University of Massachusetts, WCRP CliC) puts it: "The 'P' in IPY5 is for Planet, not only for Poles."

From Documented Interdependencies to Planetary Consequences

Polar research documents polar dynamics with increasing precision: far from being confined to the circumpolar regions, these dynamics are reshaping atmospheric regimes, the balance of the ocean, food security, and the habitability of coastlines across the entire planet. The connections between the Arctic, the Antarctic, and the major tropical and subtropical regions are now sufficiently well documented to support one inescapable conclusion: the poles lie at the heart of the dynamics that determine the stability of the Earth system as a whole. This reality redistributes responsibilities. Nations that do not see themselves as polar actors are nonetheless exposed to the transformations that polar science documents: as such, they are legitimate stakeholders in its research priorities, its governance mechanisms, and its financing architectures. Decision-makers who overlook this fact make adaptation, infrastructure, and food-security decisions on the basis of incomplete parameters. And the political cost of inaction on the poles is not confined to them: it is diffuse, planetary, and growing. The data generated by polar science are a prerequisite for any rational decision in the face of climate risk — protecting coastlines, securing water resources, planning food adaptation at the regional scale, anticipating disruptions to global supply chains. As long as these data remain fragmented, insufficiently modelled, or inaccessible to non-scientific decision-makers, it is the populations exposed to coastal, food, and water risks who bear the consequences — that is, billions of people, most of them far removed from the poles, yet directly dependent on what polar science is able to produce and communicate.

To recognise shared responsibilities for the polar regions is to give polar science a common political framework in which it becomes intelligible beyond its own community: to decision-makers, funders, and actors in adaptation, conservation, and risk management, whose choices depend directly on what it produces.

Levers for Setting a Transformation in Motion

The planetary scope of polar science calls for architectures equal to it. Three concrete levers, identified during the Symposium, chart its direction.

1. On the legal front, the BBNJ Agreement, in force since January 2026, marks an unprecedented threshold: for the first time, it subjects the protection of biodiversity on the high seas to a legally binding framework, opening the way to marine protected areas in polar waters previously beyond the reach of existing instruments — without prejudice, in the Antarctic, to the Antarctic Treaty System.
2. On the financial front, treating the polar regions as an asset class — much as water's financial value is now recognised within investment frameworks — opens the way to an unprecedented form of engagement: reinsurers, development banks, and risk managers have a direct financial interest in polar science reducing the uncertainties underlying their own decisions (sea level rise, tipping points, coastline stability).
3. On the diplomatic front, finally, international climate negotiations — with COP31 (Antalya, November 2026) as the first available milestone — have been identified as the most direct channel for formally embedding polar priorities before current commitments become fixed. The UNESCO Decade of Action for Cryospheric Sciences (2025–2034) further provides a UN programmatic framework for anchoring this ambition over the long term.

Taken together, these levers do not merely outline separate opportunities: they form a coherent architecture, capable of shifting polar science from the status of a specialised concern to that of a parameter in global decision-making.

IV. ANALYSIS – LEVERS OF TRANSFORMATION

Acting at the Scale of the Poles

1

Recognise Shared Responsibilities for the Polar Regions

The Bipolar Approach: A Cross-Cutting Requirement

First put forward at the inaugural Monaco Polar Symposium in 2022, the phrase “Two poles, one common future” acquired an operational dimension at the third edition: it no longer designates an ambition alone, but a requirement whose conditions for implementation have now been identified. Arctic and Antarctic bodies of research remain insufficiently connected, limiting the scope of modelling efforts that depend on bringing the two into dialogue. Polar communities too often approach the same actors separately, dispersing funding efforts that would benefit from coordination. Existing governance mechanisms treat the two regions as distinct spaces, when their interdependence calls for a shared architecture. This fragmentation deprives IPY5 of the coherence without which its transformative ambitions risk remaining partial.

Nothing, however, makes this fragmentation inevitable. The Antarctic Treaty has demonstrated that international scientific cooperation can bring nations with opposing interests together around shared, global objectives, and that such engagement can endure across political cycles. IPY5 has the opportunity to draw on this model by explicitly positioning bipolar scientific cooperation as an active contribution to international stability, at a time of geopolitical fragmentation.

The bipolar approach involves far more than a choice of scientific organisation: it determines IPY5's capacity to exert influence over the governance of shared planetary risks and interdependencies linked to the two poles. This shift calls for an effort that goes deeper than scientific coordination alone: making polar science a useful infrastructure for the international processes in which responses to planetary risks are defined (coastal adaptation, food security, biodiversity conservation, Management of shared global challenges). This is what sets IPY5 apart from its predecessors: beyond being a moment of scientific cooperation, it must become a step towards more integrated governance of polar and planetary interdependencies.



IV. ANALYSIS – LEVERS OF TRANSFORMATION

Acting at the Scale of the Poles

2

Build the Architecture of Transformation

Polar science has always been funded through national programmes. This historical reality is also the principal structural constraint that IPY5 must overcome. Three- to five-year funding cycles are incompatible with the decadal observations that cryospheric science requires, just as national borders run counter to the planetary scope of the challenges being addressed. The documented withdrawal of several major national programmes, driven by the combined effects of geopolitical pressures and scientific disinvestment in a number of countries, has already created gaps that the current fragmentation of funding cannot fill. This diagnosis of structural inadequacy in scientific, financial, and political architectures – first formulated in the IPY4 assessment and left uncorrected since – defines one of the most demanding priorities of IPY5's preparation: to bring about a profound transformation in the conditions under which polar science is funded, governed, and connected to the decisions it must inform and support through to their implementation.

Strengthening the Links Between Science and Policy

Polar science can no longer be conceived of as a sphere separate from policy — this is the conviction forcefully expressed by Gary Wilson, President of SCAR, from the very opening of the Symposium. Salvatore Aricò, Chief Executive Officer of the International Science Council, formulates a complementary requirement: in a polarised environment, science diplomacy must be avowed as an explicit purpose of IPY5 — its “honest undercurrent” — rather than left to operate as an unacknowledged by-product of scientific cooperation. Polar science needs a stable geopolitical framework if the knowledge it produces is to have impact.

Yet that framework is today seriously shaken. The rupture caused by the invasion of Ukraine has reduced Russian participation to its lowest level ever recorded in the history of Arctic science summits, depriving the polar community of data without which no complete picture of the Arctic Ocean can be assembled. The uncertainties surrounding the current US administration weigh on the continuity of multilateral commitments. Climate change has disappeared from discussions on the next European framework programme, replaced by security and technology priorities. Far from being short-term disruptions, these ruptures reveal that polar scientific cooperation has never rested on robust architectures, but on the

continued political will of the states that sustain it — a will now being called into question across several of its historic pillars. IPY5 is not arriving in spite of this context: it is arriving precisely because of it. Science diplomacy is not a defensive response to geopolitical fragmentation: it is one of the few levers capable of containing it, by sustaining spaces of effective cooperation where traditional diplomatic channels are closing.

Fully embracing this function is one of the most decisive directions the programme can take. Polar science thus ceases to be dependent on geopolitical stability and becomes, in turn, one of its contributing factors.

Transforming the Financial Architecture

The current fragmentation of polar science funding models remains one of the main obstacles to moving from research to action. Yet the problem cannot be reduced to a shortage of resources: the capital capable of supporting a transformative IPY5 programme exists within the global economy, but it does not reach polar science for want of architectures capable of mobilising it. The actors most naturally concerned remain largely absent from the polar funding landscape.

IV. ANALYSIS – LEVERS OF TRANSFORMATION

Acting at the Scale of the Poles

2

Build the Architecture of Transformation

From reinsurers to multilateral development banks, from philanthropic foundations to the mayors of major exposed coastal cities, these actors nonetheless have a direct and quantifiable interest in polar science reducing the uncertainties on which their own decisions rest. This paradox stems from the absence of intermediary links capable of connecting these actors to scientific priorities, translating cryospheric issues into the language of risk management, and aligning very different investment priorities around shared objectives. Several initiatives emerging from the Symposium illustrate this very gap: sufficiently developed to justify collective mobilisation, they remain too loosely structured to be integrated directly into long-term funding programmes.

Closing this gap requires, first, that funders revise their own practices. Accepting multi-year commitments, coordinating their funding cycles to allow multinational consortia to be built, covering the real costs of participation — including for Indigenous Peoples' organisations, for whom current eligibility criteria structurally discourage access to funding — these are the preconditions without which no circumpolar-scale project can be mounted. This revision of practices in turn creates the conditions for a shift in approach on the part of researchers: designing projects that build in, from the outset, their translation for non-scientific audiences; demonstrating the cost of inaction rather than only the value of the knowledge produced; engaging funders in a long-term relationship rather than a series of one-off applications. These shifts are not, however, sufficient on their own: they must be accompanied by new financial links, capable of carrying an initiative from its initial structuring through to its integration into sustainable programmes.

Building these links requires mechanisms for staged funding, able to support first the structuring of an initiative, then its launch, before mobilising larger resources from other partners. This progression is what allows emerging initiatives to reach the scale their ambition requires. Far from being a peripheral instrument, staged funding is the practical condition for the move from research to action for polar initiatives that demand time, international coordination, and the capacity to bring together science, public policy, and finance.

The MOSAiC expedition illustrates what such convergence can produce: three hundred scientists from more than twenty nations brought together around a clearly defined shared objective, despite geopolitical tensions. This Arctic scientific endeavour succeeded in aligning heterogeneous national contributions around a shared ambition — precisely what IPY5 must institutionalise at the scale of an entire programme.

As the lever on which all the others depend, the transformation of the financial architecture will determine whether the programme's ambitions remain proposals or become realities. Diversifying funding sources (public, philanthropic, private, and multilateral) is an essential strategy for building the scale-up trajectories that connect pilot projects to sustainable programmes.

Building Permanent Structures Before 2032

IPY4 left a lesson that the Symposium stated without complacency: a large-scale scientific programme, however ambitious, does not produce a lasting legacy unless it is supported by institutional architectures designed to outlive it. IPY4 left its data poorly archived, dispersed its teams at the end of the cycle, and saw its funding evaporate with them. These are the shortcomings that Dr Olav Orheim, former director of the Norwegian Polar Institute, named explicitly — shortcomings that current architectures will reproduce if nothing changes. The question, then, is not only which initiatives IPY5 will carry, but which structures will allow it to sustain its ambitions over time. The preparatory window now open is the only one the polar community has to build these structures before the programme enters its operational phase.

IV. ANALYSIS – LEVERS OF TRANSFORMATION

Acting at the Scale of the Poles

2

Build the Architecture of Transformation

Three key components have been identified:

1. A dedicated coordination mechanism, able to align criteria, cycles, and contributions under a shared scientific mandate independent of changes of government. It would fill the gap that no national programme can address alone and would create a clear trajectory linking pilot projects, intermediate programmes, and durable funding — directing well-evaluated but unfunded proposals towards alternative funders, and thereby preventing the outright loss of scientific work.

2. A circumpolar fund with a blended endowment, bringing together public, philanthropic, and private contributions. For this diversification of sources to strengthen polar science for the long term without compromising its independence, the fund must be grounded in ethical principles defined collectively in advance and built in as binding conditions of access. These principles must be established before financial flows settle into patterns of their own.

3. A career-stabilisation mechanism for early-career researchers, built in from the programme's conception. For them, the International Polar Year represents a peak of opportunity that previous cycles have shown is regularly followed by a sharp decline, leaving them without prospects. Only a continuity mechanism designed in advance can change this pattern: making IPY5 not an exceptional moment within a career, but the anchoring point for a generation of practitioners trained in transdisciplinarity and built to last. The Polar Donors Roundtable, launched at UNOC 2025 by the Prince Albert II of Monaco Foundation and several founding partners, is a first operational anchor for this architecture: it opens dialogue among funders and aligns priorities. But it will need progressively to attract reinsurers, multilateral development banks, and the mayors of major coastal cities in order to reach the scale that IPY5 requires. This trajectory of expansion, rather than the consolidation of the existing circle, defines the ambition of the preparatory period.

The transformation this part documents admits no hierarchy among its components. Reforming funding without anchoring science in policy produces resources without direction. Embracing science diplomacy without building permanent structures produces intentions without legacy. Only their conjunction — science and policy embraced together, reformed financial architectures, institutions designed to last — will determine whether IPY5 establishes itself as a structuring process or merely as one more peak of activity.



IV. ANALYSIS – LEVERS OF TRANSFORMATION

Acting at the Scale of the Poles

3

Ensure Equity and Inclusion as a Condition of Legitimacy and Effectiveness

Inclusion has long been a representational goal added at the margins of an already-constituted scientific programme. Taking as a starting premise that it determines the quality and scope of that programme – just as methods or funding do – marks the fundamental shift that IPY5 must make. This recognition entails a requirement of equity: science produced without Indigenous Knowledge holders, without the nations of the Global South, without decision-makers, and without the general public remains incomplete, incapable of informing decisions commensurate with the risks it documents. This requirement unfolds across four priority dimensions.

Indigenous Peoples: From Consultation to Co-Architecture

The ICARP IV summit (Colorado, 2025) was the largest gathering of Indigenous Peoples ever organised within an Arctic science summit, marking a historic turning point in the direction and ambitions of international research. This achievement rests on a now-explicit legal foundation: the rights of Indigenous Peoples are recognised in international law, particularly through the United Nations Declaration on the Rights of Indigenous Peoples. Because that framework upholds their right to self-determination, their integration into the architecture of polar science is no longer a claim for participation but a legal obligation. It is on this basis that co-production — defined as equity between Indigenous Knowledge and Western science, integrated from the very formulation of research questions — has been established as a founding eligibility criterion for all IPY5 initiatives.

This shift from consultation to co-architecture turns on three inseparable registers:

1. Epistemological: built on generations of continuous observation of the environment, Indigenous Knowledge documents environmental change with a territorial precision and temporal depth that instrumental networks cannot match. It forms an autonomous body of knowledge, of equal scientific legitimacy, that cannot be reduced to validation by Western science alone.

2. Institutional: activating this lever requires a structural presence from the very conception of research, in the definition of priorities, the design of protocols, and the validation of results — not participation grafted onto processes whose direction has already been decided elsewhere.

3. Material: this dimension requires dismantling what Per-Henning Mathisen, representative of the Saami Council, bluntly names a “colonialism of research funding” — that is, a system that keeps Indigenous communities in the position of being consulted rather than deciding. It means compensating the real burden of participation, in time, staffing, and funding, and revising the eligibility criteria, submission deadlines, and reporting requirements designed for university institutions with dedicated administrative teams — criteria that structurally exclude organisations without such resources.

The Indigenous Peoples' IPY5 Secretariat responds to these three registers: recognising Indigenous Knowledge as an autonomous body of knowledge in the scientific evaluation of initiatives; guaranteeing, from within the programme and at every stage of its implementation, that co-design is an effective and verifiable practice; and advocating to national and international funding agencies for the revision of protocols that structurally exclude Indigenous Peoples' organisations and institutions, or that are inconsistent with Indigenous Peoples' right to self-determination and their right to Free, Prior and Informed Consent. Unless all three conditions are met together, inclusion remains an empty promise.

IV. ANALYSIS – LEVERS OF TRANSFORMATION

Acting at the Scale of the Poles

3

Ensure Equity and Inclusion as a Condition of Legitimacy and Effectiveness

The reach of this principle extends beyond IPY5 alone: the aim is to make equity and inclusion standards binding for the international polar cycles that follow, and more broadly for any research programme. As Dalee Sambo Dorrough, adviser at the University of Alaska Anchorage and co-chair of ICARP IV, put it during the Symposium, the resilience circumpolar Indigenous Peoples have shown in the face of geopolitical, climatic and institutional disruption is as much a matter of collective intelligence as of knowledge: polar research that claims to inform planetary risk cannot be designed without those who live its consequences on the front line, and whose knowledge remains an irreplaceable resource that international scientific bodies have not yet fully drawn upon.

Making co-production the norm — one whose endorsement by the Indigenous Peoples' IPY5 Secretariat determines the eligibility of every IPY5 initiative — is what transforms this requirement of equity and inclusion into an institutional guarantee, the only kind that outlasts cycles, changes in leadership, and statements of principle.

The Global South: Scientifically Necessary Stakeholders

The documented connections between polar dynamics and tropical and subtropical regions — shifts in monsoon patterns, the redistribution of ocean heat, effects on food security and water resources — make the nations of Latin America, Africa, and South Asia scientifically necessary stakeholders in polar research, not passive beneficiaries of its results. IPY5's institutional architecture has not yet drawn out all the consequences of this fact. Integrating the Global South as a co-producer of polar science, with funding mechanisms adapted to its access constraints and effective representation within the programme's governance bodies, is a priority for IPY5's preparatory phase.

Such integration is a matter of scientific rigour as much as of equity: a science that sets out to inform planetary risk cannot continue to be designed without the nations that bear its most direct consequences.

Reconnecting Science with Societies

Trust between scientific institutions and societies cannot be restored through improved communication alone: it requires genuine inclusion. Incorporating qualitative testimony into formal assessments, making visible the impacts of polar change on livelihoods and cultural identities, involving citizens in the very production of knowledge: far from being matters of institutional communication, these efforts determine the programme's capacity to generate the social buy-in without which no adaptation decision holds over time. Against a backdrop of rising climate denial and the growing politicisation of scientific agendas, this capacity to reach and engage societies is itself decisive for the very effectiveness of the programme.

The practitioners who will carry IPY5 forward in 2032 are training today in institutions whose curricula do not yet anticipate what the programme will demand of them: working transdisciplinarily, cooperating with Indigenous Peoples, addressing decision-makers and non-scientific audiences. These competences require a deliberate reform of training and eligibility criteria that research institutions have not yet begun to undertake.

Making IPY5 the moment when this reform is launched — by developing within the programme a permanent capacity to train practitioners and mobilise relevant publics, and by integrating transdisciplinary training into eligibility criteria — is a condition of durability as much as of inclusion.

IV. ANALYSIS – LEVERS OF TRANSFORMATION

Acting at the Scale of the Poles

3

Ensure Equity and Inclusion as a Condition of Legitimacy and Effectiveness

Translating Science into Decision

Inclusion, finally, requires integrating decision-makers themselves as active recipients of polar science. Yet the translation of knowledge currently offered to them remains insufficient. Reframing deep uncertainty as risk-management parameters, translating sea level rise projections into planning data for specific coastlines, communicating the economic consequences of ice melt for global supply chains: these acts of translation are not matters of communication alone. They require specialised skills at the interface of the scientific and decision-making spheres — skills that neither current training curricula nor current funding architectures yet recognise as such.

IPY5 has the opportunity to close this gap structurally by equipping itself with a scientific mediation capacity able to tailor messages by audience, translate probabilistic projections into actionable language, and build the narratives of trust on which adaptation decisions rest. With that capacity in place, polar knowledge enters the timeframe of decision-making, rather than merely documenting decisions after they have been made.

This capacity deserves to be funded as a permanent infrastructure of the programme, distinct from and complementary to research activities. Polar science can thus cease to depend on the goodwill of decision-makers and become what it is meant to be: a force that shapes their choices.

Across these four dimensions, the twin requirement of equity and inclusion must guide the design of the programme, as well as the follow-through given to the seventeen flagship initiatives emerging from the Symposium. For these initiatives to become more than mere formulations — to become practices that are understood, owned, and progressively deployed together with all the actors they concern — inclusion and equity must be treated as fully fledged conditions of implementation, alongside funding and governance.



CONCLUSION



A Roadmap Towards IPY5

The Monaco Polar Symposium 2026 “*Enabling the Legacy: Translating Polar Research into Action*”, jointly organised by the Prince Albert II of Monaco Foundation, the Scientific Committee on Antarctic Research (SCAR), and the International Arctic Science Committee (IASC), in collaboration with the Oceanographic Institute, Prince Albert I of Monaco Foundation, brought together 170 representatives of global polar science from 25 to 27 February 2026. Designed as a key step in the preparation of the Fifth International Polar Year (IPY5, 2032–2033), the event was tasked with translating scientific dialogue into concrete prospects for action. The present report is its analytical and operational synthesis, produced under the aegis of the Prince Albert II of Monaco Foundation, whose commitment to coordinated, inclusive polar science that directly connects to decisions with planetary impact has shaped the entirety of the work.

This report could have been a stocktaking of the polar crisis. Instead, it demonstrates that a response is possible: one that is constructed, reasoned, and equipped with an operational architecture at the confluence of science, finance, and policy.

Far from being confined to scientific aspirations, the seventeen flagship initiatives at its core constitute concrete and ambitious proposals, the product of a rigorous deliberative process, structured around five complementary pillars that span the full spectrum of necessary action: reducing uncertainties around sea level rise, building an accessible and systemic data infrastructure, guaranteeing Indigenous Peoples’ right to self-determination and co-production, reforming financing structures, and reconnecting society with polar realities.

CONCLUSION

A Roadmap Towards IPY5

Going so far as to set out the first steps for implementing these actions, the report intends to offer solutions — which distinguishes it from the assessments, however rigorous, that preceded it.

This positioning reflects the fundamental shift that IPY5 represents relative to previous International Polar Years. Where IPY4 had set itself the primary ambition of producing knowledge about the poles, IPY5 pursues a goal of a different order: making that knowledge a lever for polar and planetary action and governance. This shift from knowledge to action will not happen spontaneously.

It requires, first, that polar science be recognised as a central component of planetary security, whose results condition adaptation, infrastructure, and conservation decisions taken on every continent — and that it no longer be confined to a regional speciality.

It also rests on a profound reform of financial architectures: short cycles, national fragmentation, and the absence of permanent coordination mechanisms contributed to IPY4's shortcomings (failures in data management, chronic underestimation of resources, persistent disconnection from decision-makers) and will continue to reproduce them if nothing changes.

Finally, it requires that polar science be produced together with all those it concerns: in particular, Indigenous Peoples as co-architects of research, grounded in their right to self-determination and their right to Free, Prior and Informed Consent; the nations of the Global South as co-producers;

and the general public as a full participant in the production of knowledge. The co-production of knowledge and transdisciplinarity stand out as a methodological antidote to political polarisation: they are at once a scientific requirement and a response equal to the moment.

The International Geophysical Year of 1957–58 showed that a major international scientific gathering could give rise to a lasting legal architecture. The Antarctic Treaty remains the most robust empirical demonstration of that. IPY5 unfolds in a different historical context, marked by tighter constraints and a planetary responsibility of an altogether different magnitude. This report synthesises the major ambitions to work towards; it identifies flagship initiatives, the levers of action capable of setting them in motion, the institutional and financial structures to be built or redirected, and the actors to be mobilised. The next step is to create the conditions for the most promising initiatives to find their champions and their funding, and to reach their next milestones.

Building on this output of the Monaco Polar Symposium 2026, the Prince Albert II of Monaco Foundation, alongside SCAR, IASC, and their partners, issues a call to action to bring together, around IPY5, all those who share the conviction that polar science can, and must, inform and shape the decisions that will determine our common future. Beyond a rallying call around the fate of the poles, it invites everyone to take part, starting now, in building these seventeen initiatives — to become their champions, funders, or advocates — and to give them the precise form that only collective action can confer.

LIST OF ACRONYMS & ABBREVIATIONS

AMOC	Atlantic Meridional Overturning Circulation System of deep ocean currents of which the Gulf Stream forms part.
ArORA	Arctic Ocean Regional Alliance Coordination alliance for the Arctic Ocean region.
APECS	Association of Polar Early Career Scientists International association of early-career polar scientists.
ARGO	International Argo Programme Global network of approximately 4,000 autonomous profiling floats continuously measuring temperature and salinity of the global ocean to 2,000 metres depth. Launched in 1999 with the participation of some thirty nations, its data are made freely available in real time.
ASFF	Arctic Science Funders Forum A coordination platform between national agencies and foundations supporting polar research.
ATCM	Antarctic Treaty Consultative Meeting Governance body of the Antarctic Treaty, meeting annually to examine questions relating to the implementation of the Treaty.
AWI	Alfred-Wegener-Institut für Polar- und Meeresforschung Alfred Wegener Institute for Polar and Marine Research, the principal German polar research body, leading the MOSAiC campaign.
BBNJ	Biodiversity Beyond National Jurisdiction International treaty adopted in 2023 under the auspices of the United Nations, entered into force in January 2026, establishing for the first time a binding legal framework for the conservation of biodiversity on the high seas.
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources : intergovernmental body created in 1982, responsible for the management and conservation of the living marine resources of the Southern Ocean.
CIIC	Climate and Cryosphere A project of the World Climate Research Programme (WCRP) dedicated to studying the interactions between the cryosphere and the climate system.
COMNAP	Council of Managers of National Antarctic Programs Council of directors of national Antarctic programmes, coordinating logistics and scientific operations in Antarctica.
COP	Conference of the Parties Annual meeting of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC).
DITTO	Digital Twins of the Ocean International ocean digital twinning initiative, developing virtual models integrating real-time data and scientific projections.
ECR	Early Career Researchers Category designating doctoral students, post-doctoral researchers and early-stage scientists in the initial phase of their scientific career.
FAIR	FAIR Principles (Findable, Accessible, Interoperable, Reusable) International framework of best practices for scientific data management, aimed at guaranteeing findability, accessibility, interoperability and reusability.
FAO	Food and Agriculture Organization of the United Nations A specialised UN agency whose mandate covers global food security and fisheries resource management.
GCOS	Global Climate Observing System System coordinated by WMO, UNESCO and UNEP to ensure continuous and coherent climate observations at a global scale.
IASC	International Arctic Science Committee Non-governmental organisation founded in 1990, coordinating international scientific cooperation in Arctic regions.
ICARP	International Conference on Arctic Research Planning Strategic planning process for international Arctic research. ICARP IV designates the fourth edition (Colorado, 2025).
IGY	International Geophysical Year (1957–1958) Global scientific cooperation programme that led to the adoption of the Antarctic Treaty in 1959.
INSTANT	INStabilities & Thresholds in ANTarctica SCAR scientific research programme aimed at quantifying the Antarctic ice sheet contribution to past and future sea level variations, based on improved understanding of interactions between atmosphere, ocean, cryosphere and bedrock.

LIST OF ACRONYMS & ABBREVIATIONS

IPCC	IPCC — Intergovernmental Panel on Climate Change Intergovernmental scientific body founded in 1988, charged with assessing scientific knowledge on climate change.
IPOS	International Platform for Ocean Sustainability Launched at UNOC 2025, it aimed at helping States implement their international commitments for sustainable ocean management and conservation. Recognised as a contribution to the UN Ocean Science Decade.
IPY	International Polar Year Internationally coordinated polar research programme. IPY4 designates the fourth edition (2007–2009); IPY5 designates the fifth edition (2032–2033).
ISC	International Science Council International non-governmental organisation grouping global scientific unions and associations, founded in 2018 through the merger of ICSU and ISSC.
IUCN	International Union for Conservation of Nature International organisation founded in 1948, a global reference in nature conservation and the sustainable management of natural resources.
LRTAP	Convention on Long-range Transboundary Air Pollution International treaty adopted in 1979 under the auspices of the UN Economic Commission for Europe, cited as a model of scientific cooperation in a Cold War context.
MPA	Marine Protected Area An oceanic zone subject to regulations aimed at protecting marine ecosystems.
MOSAIC	Multidisciplinary drifting Observatory for the Study of Arctic Climate International scientific expedition (2019–2020) during which the icebreaker Polarstern drifted in the Arctic sea ice for one year, bringing together some 300 scientists from more than twenty nations.
PDR	Polar Donors Roundtable Philanthropic platform launched at UNOC 2025 by the Prince Albert II of Monaco Foundation and several founding partners, dedicated to dialogue between funders and priority alignment for polar regions.
PPP	Public-Private Partnership A cooperation model between public actors and private enterprises for the funding and implementation of projects of general interest.
RCN	Ross Sea Research Coordination Network Officially launched in October 2025, this collaborative, international and interdisciplinary network coordinates research and monitoring efforts in the Ross Sea MPA by integrating science, policy and partner communities.
RINGS	SCAR interdisciplinary action group aimed at systematically mapping the Antarctic ice sheet margin through airborne geophysical surveys, in order to reduce uncertainties on the Antarctic mass balance and its contribution to sea level rise.
SCAR	Scientific Committee on Antarctic Research Interdisciplinary committee of the International Science Council, coordinating international scientific research in Antarctica since 1958.
SIDS	Small Island Developing States Group of States recognised by the United Nations, particularly vulnerable to sea level rise and the effects of climate change.
SOOP	Ship of Opportunity Programme WMO and IOC programme collecting oceanographic data via commercial vessels in transit.
SOOS	Southern Ocean Observing System International system coordinating Southern Ocean observations to improve understanding of its role in the global climate system.
UNESCO	United Nations Educational, Scientific and Cultural Organization A specialised UN agency whose mandate includes coordination of the Decade of Action for Cryospheric Sciences (2025–2034) and the Ocean Science Decade (2021–2030).
UNEP	United Nations Environment Programme The principal UN body in charge of global environmental questions.
WCRP	World Climate Research Programme International programme coordinating research on the predictability and variability of the global climate system.
WMO	World Meteorological Organization A specialised UN agency coordinating international cooperation in meteorology, climatology and hydrology.
WWF	World Wide Fund for Nature International non-governmental conservation organisation, founded in 1961.

WEDNESDAY
25
FEBRUARY

MONACO POLAR SYMPOSIUM 2026
PROGRAMME

OCEANOGRAPHIC MUSEUM

08:30 Welcome coffee

09:00 Pre Event
Antarctic Academic Cooperation

Co-organized by

- The University of the Arctic
- The Scientific Committee on Antarctic Research
- The Oceanographic Institute, Prince Albert I of Monaco Foundation

12:00 Lunch

14:00 Opening Session of the Monaco Polar Symposium 2026

Introduction by Master of Ceremony, **Genie Godula**

14:05 Welcome remarks

- **Cyril Gomez**, Chief Operating Officer, Oceanographic Institute, Prince Albert I of Monaco Foundation
- **Romain Ciarlet**, Acting Chief Executive Officer, Prince Albert II of Monaco Foundation
- **Henry Burgess**, President, International Arctic Science Committee
- **Prof. Gary Wilson**, President, Scientific Committee on Antarctic Research

14:25 Kick-off fireside chat

- **Dr. Olav Orheim**, Member, Scientific and Technical Committee, Prince Albert II of Monaco Foundation, Former Director, Norwegian Polar Institute (1993–2005)
- **Prof. Dalee Sambo Dorough**, Adviser, University of Alaska Anchorage; Co-Chair, ICARP IV
- **Dr. Salvatore Aricò**, Chief Executive Officer, International Science Council; Member, IPY-5 Executive Committee
- Moderator: **Salomé Mormentyn**, Polar Initiative Manager, Prince Albert II of Monaco Foundation

14:45

PANEL 1
International Collaboration in Time of Uncertainties

- **H.E. David Balton**, Senior Fellow, Arctic Initiative, Harvard University Kennedy School of Government
- **Dr. Sara Olsvig**, Chair, Inuit Circumpolar Council
- **Dr. Antje Boetius**, President and Chief Executive Officer, Monterey Bay Aquarium Research Institute
- **Dr. Burcu Ozsoy**, Director, TÜBİTAK Polar Research Institute; Vice-President, Capacity Building, Scientific Committee on Antarctic Research
- **Dr. Anil Mishra**, Chief, Hydrological Systems, Climate Change and Adaptation Section, UNESCO
- Moderator: **Pam Pearson**, Director and Founder, International Cryosphere Climate Initiative

15:30 Coffee Break

WEDNESDAY
25
FEBRUARY

MONACO POLAR SYMPOSIUM 2026
PROGRAMME

15:55

PANEL 2

Funding Innovation, Equity & New Models

- **Dr. Bapon Fakhruddin**, Water Sector Lead, Green Climate Fund
- **Dr. David Hik**, Chief Scientist and Vice-President, Research, Polar Knowledge Canada; Chair, Arctic Science Funders Forum
- **Aviaaja Karlshøj Knudsen**, Chair, Arctic Economic Council
- **Ryan Dolan**, Managing Director, Blue Nature Alliance, The Pew Charitable Trusts
- **Per-Henning Mathisen**, Advisor, Arctic and Environmental Unit, Saami Council / Sámiráddi
- **Sigi Gruber**, Active Senior Advisor, European Commission, DG RTD
- Moderator: **Dr. Maria Grigoratou**, Executive Secretary, European Polar Board

16:40

Peace Through Science: A Conversation on Antarctica

John Weller, Senior Fellow, Only One

16:50

PANEL 3

Research to Action: Flagship Initiatives & Implementation

- **Dr. Matthew L. Druckenmiller**, Vice President and U.S. Delegate, International Arctic Science Committee
- **Prof. Jefferson Cardia Simões**, Director, Centro Polar e Climatico, Universidade Federal do Rio Grande do Sul
- **Dr. Anita Lafferty**, Research Associate, Aurora College
- **Prof. Robert DeConto**, Principal Investigator and Host Scientist, Climate and Cryosphere (CliC), World Climate Research Programme
- **Dr. Cassandra Brooks**, Professor, University of Colorado Boulder; Chief Officer, SCAR Standing Committee on the Antarctic Treaty System
- Moderator: **Prof. Michael Meredith**, Joint Director, UK National Climate Science Partnership, British Antarctic Survey; Member, Scientific and Technical Committee, Prince Albert II of Monaco Foundation

17:35

Signing Ceremony and Day Wrap-up

17:45

Break

YACHT CLUB OF MONACO

19:30

Joint Gala Dinner

Pre-Event & Polar Symposium

hosted by **Dr. Frederik Paulsen**, Chair, UArctic

Ballroom

Business Formal

THURSDAY
26
FEBRUARY

MONACO POLAR SYMPOSIUM 2026
PROGRAMME

OCEANOGRAPHIC MUSEUM

09:00	Welcome coffee
09:30	Introduction of the Day Rachel Clausing , Head of Initiatives Department and Special Advisor, Prince Albert II of Monaco Foundation; Master of Ceremony
09:40	WORKSHOP SESSION 1 International Collaboration in Time of Uncertainties [Incl. Coffee break: 11:00 – 11:20] Chair & Co-Chairs: • Dr. Jennifer Spence, Director, Arctic Initiative, Belfer Center for Science and International Affairs, Harvard Kennedy School • Mads Qvist Frederiksen, Executive Director, Arctic Economic Council • Eirik Larsen (Lásse-Ivvár Erke), Head, Human Rights Unit, Saami Council • Dr. Monika Szkarłat, Assistant Professor and Researcher, Maria Curie-Skłodowska University (Lublin, Poland); Member, Polish Polar Consortium; Committee on Polar Research, Polish Academy of Sciences
12:30	Lunch
14:30	Keynote Address by Mr. Ashok Adicéam , Executive Director, Mission Neptune; Deputy Special Envoy for the Ocean, France
14:40	Report Back from Workshop Session 1
15:00	WORKSHOP SESSION 2 Funding Innovation, Equity & New Models [Incl. Coffee break: 16:20 – 16:40] Chair & Co-Chairs: • Henry Burgess, President, International Arctic Science Committee • Dr. Narelle van der Wel, Head, Cryosphere Monitoring, Predictions and Services Unit, World Meteorological Organization • Dr. Bapon Fakhruddin, Water Sector Lead, Green Climate Fund
18:00	Live Performance by Elle Maija Klefstad Bær
18:15	Day Wrap-Up and Group Photo
18:30	Self-Guided Visit of the Oceanographic Museum
19:00	Dining Cocktail Reception Oceanographic Museum – 1st floor

FRIDAY
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FEBRUARY

MONACO POLAR SYMPOSIUM 2026
PROGRAMME

OCEANOGRAPHIC MUSEUM

09:00	Welcome coffee
09:30	Introduction of the Day Genie Godula, Master of Ceremony
09:35	Report Back from Workshop Session 2
09:55	WORKSHOP SESSION 3 Research to Action: Flagship Initiatives & Implementation [Incl. Coffee break: 11:20 – 11:40] Chair & Co-Chairs: • Prof. Gary Wilson, President, Scientific Committee on Antarctic Research • Dr. Renuka Badhe, Secretary General, EuroGOOS • Dr. Cassandra Brooks, Professor, University of Colorado Boulder; Chief Officer, SCAR Standing Committee on the Antarctic Treaty System • Prof. Michael Meredith, Joint Director, UK National Climate Science Partnership, British Antarctic Survey; Member, Scientific and Technical Committee, Prince Albert II of Monaco Foundation • Dr. Olav Orheim, Member, Scientific and Technical Committee, Prince Albert II of Monaco Foundation; Former Director, Norwegian Polar Institute (1993–2005)
13:00	Lunch
14:30	Report Back from Workshop Session 3
14:50	Tara Polar Station: A Conversation on the Central Arctic Ocean with Pierre Mienville, Advocacy Officer, Tara Ocean Foundation, and Maria Damanaki, Principal Advisor, Oceans 5
15:00	Closing Panel – Vision for the Future: Research for Society • Dr. Renuka Badhe, Secretary General, EuroGOOS • Dr. Jennifer Spence, Director, Arctic Initiative, Belfer Center for Science and International Affairs, Harvard Kennedy School • Dr. Narelle van der Wel, Head, Cryosphere Monitoring, Prediction and Services Unit, World Meteorological Organization • Moderator: Dr. Alice Guzzi, Vice-President, Association of Polar Early Career Scientists
15:25	Live Performance by OSCAAL
15:40	Coffee Break
16:00	Official Closing Session • Closing Remarks by Henry Burgess, President, International Arctic Science Committee • Closing Remarks by Dr. Cassandra Brooks, Professor, University of Colorado Boulder; Chief Officer, SCAR Standing Committee on the Antarctic Treaty System • Keynote Address by H.E. Ólafur Ragnar Grímsson, Chairman, Arctic Circle
16:10	Official Closing Address by HSH Prince Albert II of Monaco Livestream



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This report draws on the contributions of the other participants in the Monaco Polar Symposium 2026

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- Ms Paula González Gálvez, First Secretary, Embassy of Chile in France, Government of Chile
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- Dr Philippe Mondielli, Scientific Director, Prince Albert II of Monaco Foundation
- Dr Nathalie Morata, Head of the European and International Coordination Department, Fondation pour la Recherche sur la Biodiversité



AUTHORS & ACKNOWLEDGEMENTS

- Prof. Maribeth Murray, Director and Professor, Arctic Institute of North America
- Ms Birgit Njåstad, Leader, Antarctic Programme, Norwegian Polar Institute
- Ms Meg O'Hara, Ambassador, 11th Hour Racing
- Ms Anne-Catherine Ohlmann, Director, Ice Memory Foundation
- Ms Ásdís Ólafsdóttir, Chief Executive Officer, Arctic Circle
- Dr Sara Olsvig, Chair, Inuit Circumpolar Council
- Mr Anders Oskal, Secretary General and Executive Director, World Reindeer Herders and International Centre for Reindeer Husbandry
- Prof. Burcu Özsoy, Director, Polar Research Institute, Marmara Research Center, Scientific and Technological Research Council of Türkiye
- Mr Frederik Dag Arfst Paulsen, Chair, University of the Arctic
- Ms Sylvette Peplowski, Campaigns and Project Officer, Clean Arctic Alliance
- Mr Marcello Pica, President, Mama Shipping
- Dr Volker Rachold, Head, German Arctic Office, Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research
- Ms Inge Relph, Executive Director and Co-Founder, GlobalChoices
- Mr Romain Renoux, Executive Director, The MedFund
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- Prof. Jiuxin Shi, Professor, Ocean University of China
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- Dr Gosia Smieszek-Rice, Deputy Secretary, Arctic Monitoring and Assessment Programme
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- Mr John Weller, Senior Fellow, Only One
- Ms Robyn Woodhead, Adviser, Cryosphere Foundation
- Ms Mardi Wu, Embassy of Australia in France, Government of Australia
- Dr Rositsa Yaneva, Head of the Section on Educational and Scientific Activities, National Center for Polar Studies, Sofia University
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- Prof. Guoping Zhu, Director, Center for Polar Research, Shanghai Ocean University

Artificial intelligence tools were used during the consolidation of the workshop outputs.

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