

INTERNATIONAL ARCTIC SCIENCE COMMITTEE

Organisational Review 2016–2025

Prepared by the IASC Review Committee

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March 2026

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Section 1: Introduction and Methodology

1.1 Purpose and Scope of the Review

The International Arctic Science Committee (IASC) is a non-governmental organisation dedicated to encouraging and facilitating cooperation in all aspects of Arctic research across all countries engaged in such research, and in all areas of the Arctic region. Founded in 1990, IASC operates through a national membership model, bringing together scientists and research institutions from across the globe to coordinate and advance Arctic science. As of 2025 the organisation has 25 member countries.

This report presents the findings of the IASC Organisational Review covering the period 2016 to 2025. It is the fourth such review in IASC's history, following the reviews published in 2016, 2006 and 1996. Like its predecessors, the review was commissioned by IASC's own governance structures and is intended as a candid, evidence-based assessment of the organisation's performance, relevance, and fitness for purpose in a rapidly changing Arctic and geopolitical environment.

The review was conducted by an independent Review Committee of six members: Renuka Badhe (Chair), Melody Burkins, Rune Fjellheim, Gosia Smieszek, Leena Leppänen, and Tetsuo Suyeoshi. Rune Fjellheim participated as a committee member from February to September 2025, during the designing of the process. Leena Leppänen also served as a current IASC Fellow during the review period, providing a unique early career and insider vantage point.

The review does not seek to audit IASC's financial accounts or assess individual staff performance. Rather, it examines the organisation's strategic direction, governance, partnerships, scientific impact, early career engagement, Indigenous engagement, and operational efficiency - against the backdrop of the opportunities and challenges of the review period.

1.2 Review Framework

Two internationally recognised frameworks for assessing multilateral organisations were applied:

- The MOPAN 3.1 framework (Multilateral Organisation Performance Assessment Network), which assesses performance across Strategic, Operational, Relationship, Performance, and Results dimensions.
- The OECD DAC evaluation criteria of Relevance, Coherence, Effectiveness, Efficiency, Impact, and Sustainability.

Nine Key Performance Indicators (KPIs) were identified at the outset as most material to IASC's mandate and context. The review's findings against each KPI, based on triangulated evidence across all data sources, are summarised in Table 1.1.

KPI	Assessment
R1 - Role Clarity and Relevance	IASC's facilitation and coordination role is well understood and valued across all stakeholder groups. The "lighthouse" framing - a dedicated science platform above politics - was affirmed by partner organisations of every type.
R2 - Strategic Direction	Strategic priorities are broadly aligned with community needs. ICARP IV is widely regarded as the most inclusive and ambitious priority-setting process IASC has run to date; the challenge is translating priorities into visible implementation.
C1 - Governance and Council Engagement	IASC's governance structures function well under significant geopolitical and operational pressure. Opportunities exist to deepen Council engagement and strengthen the feedback loop between Council and

	Working Groups, and between Council and their national Arctic communities.
C3 - External Partnerships	Core partnerships are valued and productive. IASC is widely recognised as the “glue” of the Arctic science ecosystem. There is scope to deepen key relationships, address coordination challenges across the growing Arctic institutional landscape, strengthen science-to-action pathways, and raise IASC’s profile with communities and geographic areas it has not yet fully reached.
E1 - Facilitation Effectiveness	IASC is highly effective as a catalyst and convener. MOSAiC, the Arctic Science Summit Week, and ICARP IV are landmark achievements that demonstrate the organisation’s convening power at its best.
E4 - Early Career Researcher Engagement	The Fellowship programme is IASC’s most celebrated function, rated as the strongest contribution by the community. Alumni go on to leadership roles in Arctic science; the programme is a genuine success story with room to grow further.
EF1 - Operational Efficiency and Financing	The Secretariat is widely praised for exceptional performance. The review identifies opportunities to strengthen institutional resilience and ensure the organisation is well-resourced for the demands of the IPY5 decade.
S2 - Equity and Inclusion	IASC has made genuine and recognised progress on Indigenous engagement over the review period, establishing new structures and expanding participation significantly. Further structural steps are needed to fully embed this commitment.
S3 - Implementation and Impact	IASC is effective at identifying and communicating Arctic research priorities. Developing stronger mechanisms to track and communicate how these priorities influence research and policy at national and international levels is the next opportunity for growth.

Table 1.1: KPI assessment summary. Findings represent the Review Committee’s triangulated judgement across interviews, survey data, and documentary review.

1.3 Methodology

Data were gathered through three complementary methods. All findings are triangulated: a finding is treated as robust where it is supported by two or more independent data sources. Relevant Large Language Models (LLMs) have been used for data analysis for this review.

1.3.1 Qualitative Interviews

The Review Committee conducted 24 semi-structured interviews with a sample of IASC stakeholders across five groups:

- IASC Executive Committee – current and past members
- IASC Working Group leadership
- IASC Fellows - past and current Fellows spanning multiple Working Groups
- Several partner organisations, including other Arctic, Antarctic and global organisations

All interviews were recorded and transcribed. All quotations used in this report are fully anonymised; interviewees are identified only by their broad stakeholder category. Interviews were conducted primarily between September 2024 and February 2025.

1.3.2 Survey

An online survey was distributed to the IASC community - Council delegates, Working Group and Action Group members, past and current Fellows, and partner organisation representatives - receiving 61 responses. The survey included Likert-scale items (1–5), open-text questions, and targeted sub-questions for specific respondent groups (Council members, WG members, and Fellows). Quantitative results are reported as weighted means and percentage agreement. Open-text responses were thematically coded by the Review Committee.

1.4 Limitations

Several limitations should be noted when interpreting this review. Survey respondents were self-selected and are likely to over-represent those already actively engaged with IASC. The geopolitical context - particularly the suspension of Russian participation and evolving US science policy - creates unusual conditions in which some dynamics are still in flux. The Review Committee includes current and former IASC community members, bringing insider knowledge alongside potential familiarity bias; the committee has worked to maintain analytical independence throughout.

Section 2: IASC in Context

2.1 The Arctic Science Landscape, 2016–2025

The decade under review has been one of the most turbulent in the history of Arctic science and governance. Four intersecting developments have shaped the context in which IASC has operated, and must be understood when assessing its performance.

2.1.1 Accelerating Environmental Change

The Arctic has continued to warm at two to four times the global average rate across the review period. Sea ice extent has reached record lows in multiple years, permafrost thaw has accelerated, and the prospect of a seasonally ice-free Arctic Ocean within the next decades is now treated as a central planning assumption for Arctic science, rather than a distant scenario. These changes have heightened both the urgency of Arctic research and its global significance - what happens in the Arctic does not stay in the Arctic - while simultaneously creating new practical challenges for field-based research in a more dynamic and less predictable physical environment.

2.1.2 Geopolitical Fragmentation

The Russian Federation's invasion of Ukraine in February 2022 fractured the pan-Arctic scientific community in ways that continue to reverberate today. Russia's initial suspension from Arctic Council activities, combined with decisions by many research institutions and national governments to suspend bilateral scientific cooperation, severed long-standing collaborative relationships and removed access to significant portions of the terrestrial and marine Arctic. The impact on long-term monitoring programmes, time-series datasets, and research infrastructure has been substantial. Several interview participants described the loss of Russian scientific partnerships as among the most professionally painful experiences of their careers.

Simultaneously, shifts in US science funding policy from 2025 have introduced new uncertainties for IASC's largest Arctic member and for major international programmes including IPY5 planning.

Despite these pressures, IASC has maintained operational continuity and kept its formal membership intact, with Russia largely staying in a state of suspended engagement. This approach - deliberately preserving the institutional architecture for future re-engagement - has been widely praised as both principled and pragmatic.

2.1.3 Growing Recognition of Indigenous Peoples in Arctic Science

The review period has seen a significant shift in Arctic science governance toward recognition of Indigenous knowledge systems and the rights of Arctic Indigenous Peoples to participate in and lead research on their homelands. This shift is reflected in IASC's own structures: the establishment of the Standing Committee on Indigenous Involvement (SCII), the creation of the Indigenous Fellow position, and the embedding of Indigenous co-leadership in the ICARP IV Research Priority Theme process represent meaningful institutional change. Progress has been real but incomplete, and the gap between commitments and structural implementation is underlined by many sources in this review.

2.1.4 Evolving Research Infrastructure and Emerging Technologies

The period has been marked by major advances in observational technology - autonomous sensors, satellite remote sensing, AI-assisted data analysis, and unmanned systems - that are beginning to transform the economics and geography of Arctic science. IASC's role in facilitating this transition is as yet undefined.

2.2 IASC's Position in the Landscape

IASC occupies a distinctive and, in the view of this review, genuinely irreplaceable position in the Arctic science ecosystem. It is the only non-governmental, membership-based international body devoted exclusively to the coordination and advancement of Arctic science across all disciplines and all member countries on an equal footing. This distinguishes it from the Arctic Council

(intergovernmental, policy-focused), from national polar programmes (country-specific), from disciplinary scientific associations (thematic rather than regional), and from university networks (education-oriented).

“It is the only really lighthouse in Arctic science - the one platform where pure science, not geopolitics or national interest, is the organising principle.”

- Partner organisation representative

This assessment was independently echoed by partner organisations across the spectrum - from Antarctic and Southern Ocean science to global science governance, Indigenous peoples' bodies, and research infrastructure organisations - all confirming that IASC fills a space no other body occupies. Role clarity is one of IASC's greatest strengths and the foundation on which the recommendations of this review are built.

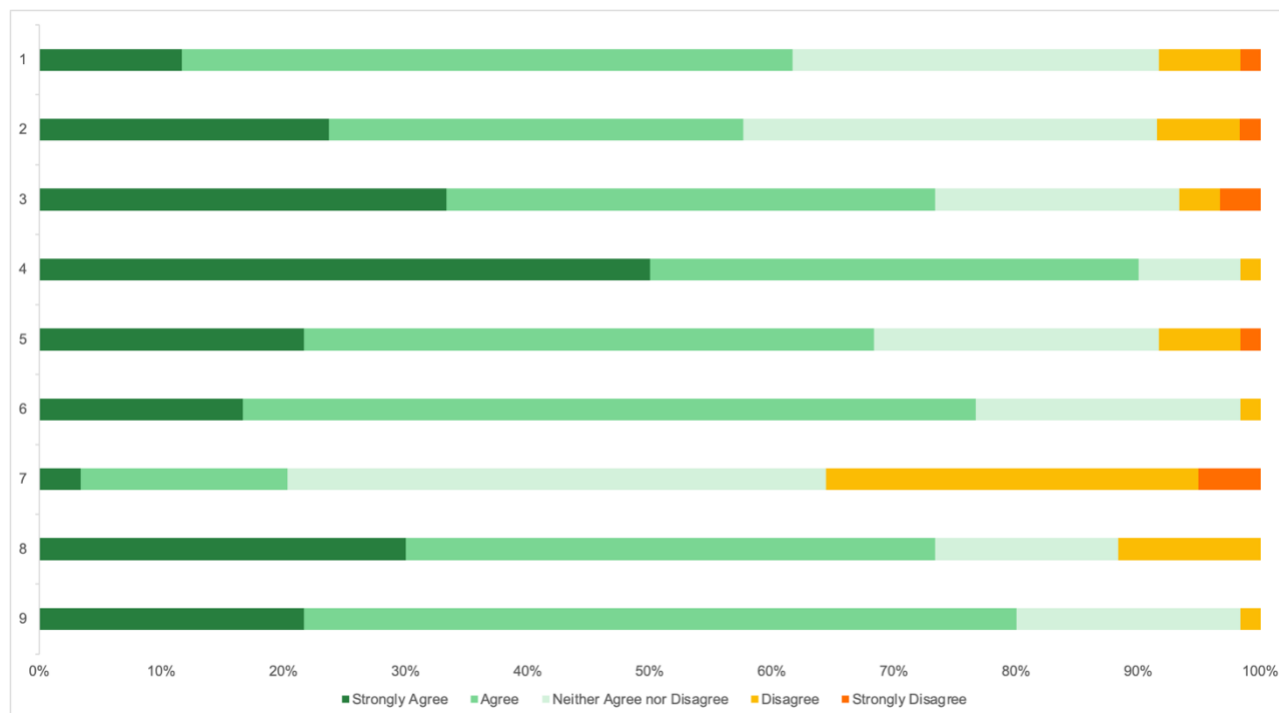


Figure 1: Survey responses (n=60, IASC internal stakeholders including ExCom, Council, WG leads and members) to the following questions as indicated in graph (1) IASC has demonstrated the ability to adapt to changing circumstances (e.g., geopolitical shifts, pandemic). (2) IASC's governance structure (Council, EC) provides effective leadership and oversight. (3) IASC's operations and activities are managed efficiently. (4) IASC provides valuable opportunities for Early Career Researchers. (5) IASC is effective at facilitating international research collaboration. (6) IASC's partnerships with other international organizations add significant value to Arctic science. (7) There is effective collaboration and communication between IASC's Working Groups. (8) IASC effectively engages a diverse range of researchers, including those from different disciplines and career stages. (9) IASC's strategic priorities are well-aligned with the most important needs of the Arctic research community.

Section 3: The National Interface - Council, Delegates, and Governance

3.1 Introduction: Context and Identified Challenges

The National Interface encompasses IASC's relationship with its member states, as expressed through the Council - the organisation's principal governance body. The Council connects IASC to 25 national research systems, provides the mechanism through which national scientific communities are meant to be engaged with and informed about IASC's work.

Interviews and survey data consistently affirm that the Council functions effectively in its formal governance role. However, they also reveal a cluster of recurring structural challenges:

- A persistent gap between governance decisions taken at Council level and awareness at the national research community level - the "black hole" problem identified in 2016 and confirmed unresolved in this review.
- Inconsistent delegate engagement, with some Council members attending annually and contributing substantively and others rarely visible.
- A composition that skews toward senior administrators rather than active researchers, creating a disconnect between governance and scientific practice.
- Financial governance gaps, including a fiscal year misalignment and the need for a formal financial oversight sub-committee.
- A contribution fee structure that creates barriers for non-traditional Arctic nations and has not kept pace with inflation.

3.2 History and Where We Are Now

The IASC Council is the organisation's principal decision-making and governing body. It provides overall direction for IASC's priorities, institutional development, and international engagement. Composed of one designated representative from each member country - typically senior scientists or science administrators with strong links to national polar research systems - the Council meets once a year during the Arctic Science Summit Week. In addition to setting strategic direction, it admits new IASC members, decides on the establishment of Action Groups (short-term expert groups with a typically one or two year mandate that conclude with a report to the Council), and oversees the activities of IASC's Working Groups and cross-cutting initiatives.

Council members from all IASC member countries ensure input of a wide range of scientific and technical knowledge and, in principle, provide access to a large number of scientists and administrators through their national committees. With 25 member countries as of 2025, and additional countries in the pipeline, the Council is growing in geographic reach.

The Council's formal authority is not in question. What the review finds, consistently across interviews, survey data, and partner accounts, is a significant gap between what the Council is empowered to do and the degree to which it actively engages with its mandate - and between the governance decisions made at Council level and the operational realities experienced at the working level.

3.3 Findings: The Engagement Gap

The main concern raised by this review, and one that commands the broadest consensus across all data sources, is the disconnect between the Council and the scientific community it represents - or ought to represent. Scientists across the IASC community often reported feeling "invisible" to their national representatives. There is a widely perceived gap between the Council and the working level: decisions taken at Council level fail to trickle down to the researchers conducting IASC's scientific work, and, conversely, Council members sometimes struggle to represent the full breadth of their national community upward into IASC processes.

A pattern described by a senior IASC leader as the "black hole" effect in this review - the sense that substantive matters enter Council processes without clear feedback or visible outcomes being

communicated back to Working Groups and national communities - was noted across several independent data sources. It encompasses several related but distinct problems:

- Council meets only once per year. Multiple respondents identified this as insufficient for meaningful strategic governance. One Council member stated explicitly: “one meeting per year is not enough to have a bigger impact.”
- Many national delegations go through an entire Council day without their delegate speaking. The basis on which national adhering bodies select their delegates is opaque, and there is no consistent expectation that delegates should be active researchers with working connections to IASC’s scientific agenda.
- There are no Term limits for Council members - some seats are held by the same individuals for extended periods; others turn over rapidly. The result is persistent institutional knowledge imbalances across the Council.
- The relationship between Council and Working Groups is one-directional: WGs report upward to Council but there is a lack of two-sided conversations and strategic direction.

Key Finding: Council-to-WG two way communication needs improvement. This communication gap is the source of some of the disconnection felt between IASC’s governance layer and its scientific layer.

Importantly, this concern is not new. An almost identical finding was documented in the 2016 IASC Organisational Review. Under its “Key Theme 7: Raising Awareness of IASC’s Contributions”, the 2016 Review Committee reported, on the basis of responses to a widely circulated questionnaire:

“Much of the lack of awareness of what IASC is doing and contributing comes down to weaknesses at the national level. This reflects the tendency among all international organizations for national representatives to operate like “black holes” when they return home from international meetings.”

- 2016 IASC Organisational Review

The 2016 Review Committee identified this dynamic as a key factor in making IASC appear less transparent than it would wish to be, and made a direct recommendation to address it:

“ALL national representatives [should] see themselves as the main avenues of communication back to their respective nations about what IASC is doing and contributing. They each have a responsibility to report widely as IASC disciples.”

- 2016 IASC Organisational Review

The present review finds that, whereas many recommendations from the 2016 review were followed up and served to improve IASC’s functioning and raise its profile, the “black hole” dynamic has proved a systemic weakness that has been difficult to correct. It recurs in almost identical form across this review’s data. This persistence across two full review cycles is the clearest possible signal that addressing it requires structural change, not just guidance.

Survey data are consistent with these findings. Just over half of survey respondents - 55% - agreed or strongly agreed that IASC’s governance structures provide effective leadership and oversight, with a notably high neutral proportion: 34% selected “neither agree nor disagree.” When one third of community members cannot assess whether their governing body is providing effective leadership, the body is not sufficiently visible or communicative. This is less a verdict on the quality of governance than a signal that Council’s work needs to be made more visible across the IASC community.

“There are countries that go the whole day without speaking. The Council is opaque even to those who attend it regularly.”

3.4 Council Composition and Diversity

The composition of national Council delegations reflects, and in some cases reinforces, structural inequities in Arctic science participation:

- Delegates tend to be drawn from government ministries, research foundations, or senior administration rather than from the active research community. This creates a disconnect between those who make governance decisions and those who conduct the science IASC is meant to coordinate.
- Cultural and or linguistic majority blocs in Council that multiple respondents - both European and non-European - described as producing a “cultural bias” in discussion styles, priority-setting, and procedural norms. Non-Western delegates, and delegates from smaller nations, can find the environment difficult to navigate.
- One Council member reported that their country has no national Arctic research programme, making “alignment with national priorities” largely meaningless for their participation. IASC must serve members at very different levels of Arctic engagement, and its procedures need to adequately reflect this diversity.
- Indigenous Peoples have no formal representation in either the Council or the Executive Committee - a structural gap explicitly identified in the 2020 Action Group on Indigenous Involvement recommendations, which remains to be fully addressed.

The review notes a positive recent development in this area: IASC has planned new member onboarding webinars, complementing the existing onboarding pack, to help new Council delegates navigate the organisation’s governance and priorities from the outset. This initiative is welcomed and should be formalised as a standing practice. A regular, structured onboarding process would reduce the learning curve for new delegates, improve engagement quality, and help members from smaller or less engaged national programmes contribute more effectively from their first Council meeting.

3.5 Decision-Making and the Consensus Question

IASC operates on a consensus decision-making model. This approach, appropriate when the organisation was small and geopolitically coherent, faces increasing strain as membership grows and fundamental political divergences arise between members. The core concern is that consensus becomes progressively harder to achieve as membership grows and can become practically impossible when fundamental political tensions exist. Multiple interviewees raised this as a structural vulnerability requiring proactive attention given the current geopolitical tensions. A graduated model has been proposed by multiple sources: supermajority voting (two-thirds) for most operational decisions, with consensus reserved for foundational matters such as constitutional amendments or membership changes. This proposal deserves serious consideration before IASC’s next strategic planning cycle.

3.6 Financial Governance

Financial governance is currently managed almost entirely through the Secretariat, with Council oversight exercised annually. Several structural gaps were identified:

- The IASC fiscal year (April to March) does not align with the calendar year used by most member countries’ funding cycles, making it difficult for Council members to evaluate the full financial picture at the time of budget approval.
- No formal financial sub-committee or audit mechanism exists. Council members proposed establishing an oversight sub-committee with a year-round mandate for budget monitoring and strategic financial input.
- One respondent noted plainly that “funding is limited while needs are growing” and that “it is unlikely countries will pay higher fees” - the answer lies in more efficient and goal-oriented spending rather than increased contributions.
- The option of automatic fee escalators at defined intervals (every three to five years) was raised as preferable to politically painful ad-hoc fee increases. Two indexation approaches warrant consideration: a standard eurozone inflation index applicable to all members, or an individualised adjustment reflecting each member country’s domestic inflation rate, which would better protect purchasing power while distributing the adjustment equitably across members with very different economic contexts.
- IASC currently operates two contribution levels: €13,000 and €16,000. This binary structure limits the organisation’s ability to attract and retain members from non-traditional Arctic

nations - countries with growing Arctic research programmes but research council budgets calibrated to lower international contribution norms. A tiered fee structure with additional levels below €13,000 would lower the barrier to membership for these nations, broaden IASC's geopolitical reach, and modestly diversify its income base. The aggregate revenue impact of adding lower tiers is likely to be small, but the strategic membership benefit could be significant.

3.7 Recommendations for the Future

REC 3.1 Strengthen Council Engagement and Governance

- Introduce formal annual strategic direction communications from Council to Working Groups, specifying priorities for the year ahead and how WGs can contribute to them.
- Establish a clear expectation - communicated through the onboarding pack and annual Council communications - that active dissemination of IASC activities and decisions to national research communities is a core part of the Council delegate role. The “black hole” dynamic identified in 2016 and re-confirmed in this review requires clear and consistent articulation of this expectation.
- Invite Council to consider introducing delegate term guidance and to embed this in a future Handbook update.
- An onboarding pack for new Council delegates and Working Group members is already in place, and the first onboarding webinar for new representatives is planned for April 2026. The Review Committee welcomes both initiatives and recommends they be formalised as standing annual practices, ensuring all new delegates receive structured orientation on governance, priorities, and expectations before their first Council meeting.
- Explore a graduated voting mechanism: two-thirds supermajority for most operational and strategic decisions; consensus reserved for constitutional changes and membership decisions.
- Align the IASC fiscal year with the calendar year to improve financial transparency for Council members.
- Establish a financial oversight sub-committee with a year-round mandate for budget monitoring, strategic financial input, and audit oversight.
- Propose to Council a regular membership fee review mechanism on a three to five year cycle, indexed to standard inflation indicators.
- Review the current two-tier contribution structure (€13,000 and €16,000) and consider introducing additional lower tiers to reduce barriers to membership for non-traditional Arctic nations with active but modestly resourced national programmes. Explore other membership categories as a route to expanding engagement and modest income without structural membership changes.

Section 4: The Scientific Interface - Working Groups, Interdisciplinarity, and ICARP

4.1 Introduction: Context and Identified Challenges

IASC's scientific work is delivered principally through five thematic Working Groups. This section assesses their institutional positioning, operational effectiveness, and strategic fit. It draws on survey responses, structured interviews, and document analysis.

Surveys and interviews consistently confirm that the Working Groups remain scientifically productive and highly valued by their communities. At the same time, several recurring challenges were identified:

- Limited structural integration across disciplinary boundaries, with cross-WG collaboration occurring primarily through ad hoc rather than institutionalised mechanisms.
- Insufficient alignment between WG activities and long-term strategic frameworks, including the ICARP process.
- Uneven operationalisation of Indigenous knowledge co-production across Working Groups.
- Variable integration of early career researchers into WG governance and decision-making.
- Unclear performance indicators linking WG activities to IASC's strategic outcomes.

These challenges do not undermine the scientific credibility of the Working Groups. They highlight areas where deliberate structural evolution may be needed in light of rapidly changing Arctic research landscapes and governance expectations.

4.2 History and Where We Are Now

IASC's scientific activities are organised through five thematic Working Groups: Atmosphere (AWG), Cryosphere (CWG), Marine (MWG), Terrestrial (TWG), and Social and Human Sciences (SHWG). Each Working Group comprises up to two representatives per member country, appointed by the national adhering bodies, supplemented by IASC Fellows. Working Groups meet at least annually - primarily at ASSW - and administer IASC's project funding through an annual call for proposals. Two types of proposal are accepted: WG-specific projects (relevant to a single WG) and Cross-Cutting projects (relevant to two or more WGs, funded jointly by the participating groups). IASC funds science-led international activities - planning, coordination, and facilitation - not individual research projects or fieldwork.

Since their establishment, the five Working Groups have functioned as the operational backbone of IASC. They provide disciplinary coordination, expert networking, seed funding mechanisms, and continuity across research cycles. The disciplinary architecture - aligned with the major components of the Arctic system - has proved effective in maintaining scientific excellence, particularly during large-scale collaborative initiatives such as the MOSAiC expedition, successive ICARP processes, and periods of significant geopolitical tension.

The Working Group model is widely valued as IASC's primary mechanism for facilitating national-level scientific connections and for identifying and seeding new international research initiatives. The survey item "IASC is effective at facilitating international research collaboration" was agreed to by 68% of respondents. The WGs are widely regarded as stable communities of practice that sustain long-term expert networks and foster early-stage international cooperation - a genuine and enduring institutional strength.

At the same time, the broader research landscape is shifting in ways that create new demands on the WG architecture. The emergence of integrated Earth system science, transdisciplinary research approaches, co-production with Arctic communities, digital data interoperability, and expanded participation from Asian Arctic research actors all represent directions that the current disciplinary structure was not originally designed to accommodate. These shifts do not undermine the WGs' scientific credibility - they highlight areas where deliberate structural evolution may be needed to maintain relevance and responsiveness over the next decade.

4.3 Scientific Strengths

Before turning to structural challenges, the review records the following strengths, emphasised consistently across interviews and survey responses:

- Strong disciplinary identity and cohesion: each WG maintains a clear scientific community with shared norms, vocabulary, and research culture.
- Effective seed funding mechanisms: the WG grant model catalyses international collaboration at early stages that national funding agencies typically cannot reach.
- Resilience and continuity through disruption: WGs have maintained function and membership through the COVID-19 pandemic, the suspension of Russian participation, and shifting US science policy - demonstrating institutional robustness that should not be taken for granted.
- High scientific credibility: the WGs are respected within and beyond the Arctic science community. Their outputs, network relationships, and participation in major initiatives carry genuine scientific authority.

Key Finding: The Working Groups are IASC's scientific engine. The question before this review is not whether they function - they clearly do - but whether they are optimally configured for the future of Arctic science.

4.4 Findings: The Cross-Working Group Silo Problem

The survey item on collaboration and communication between Working Groups was the most critical result in the quantitative data: only 20% of respondents agreed that cross-WG collaboration is effective, while 36% disagreed and 44% were neutral. This finding is reinforced across all qualitative data sources and represents the single most consistent structural challenge identified in the review - and therefore the area with the greatest potential for improvement.

Key Finding: Cross-WG silos are the single most consistently identified structural problem in the review - raised in interviews, across all survey question categories, and confirmed overwhelmingly by quantitative data. This is a structural failure, not a behavioural one.

The silo problem encompasses several related failures:

- Working Groups function as largely self-contained communities. Communication across groups occurs primarily at Chair level or through personal relationships between individual national delegates. It does not reach working members systematically.
- The cross-cutting meeting held annually at ASSW - the main formal mechanism for inter-WG interaction - is dominated by proposal pitch presentations rather than genuine cross-disciplinary dialogue.
- Working Group meeting summaries are not systematically shared with other Working Groups. Members have no routine visibility into what other groups are prioritising or working on.
- The cross-cutting proposal funding model, while well-intentioned, creates perverse incentives: proposals spanning multiple WGs must individually negotiate contributions from each group, and groups routinely decline applications they cannot connect to their specific mandate.
- Attendance at Working Group meetings is at 50% or lower, based on several respondents. This persistent engagement gap is compounded by the absence of any routine inter-WG communication mechanism outside ASSW.

"This is the keystone issue. Problems in the Arctic are multidimensional. It is extremely difficult to address them without a holistic and multidisciplinary approach - and the current structure makes that approach very hard to achieve."

- Working Group member

One WG has piloted practical low-cost responses: a cross-WG newsletter, proposals for colour-coded name tags at ASSW to help members identify colleagues from other groups, and efforts to repurpose cross-WG meeting time toward genuine dialogue. These initiatives demonstrate both that the problem is recognised and that simple solutions exist - and also that individual Working Groups should not be required to solve a structural problem unilaterally.

4.5 Working Group Funding: Design Flaws

While each WG holds its own budget and cross-cutting projects are funded jointly by the participating WGs, multiple interviewees described the practical effect of the current model as one of broadly equal funding across the five groups, regardless of differences in submission volumes or cross-cutting engagement. The SHWG in particular is perceived to be at a structural disadvantage: it attracts a disproportionately high proportion of cross-cutting applications relative to the weight it carries in joint funding decisions. Multiple respondents called for the funding model to be adjusted to better reflect submission volumes and cross-cutting activity levels.

The proposal process carries a significant administrative overhead for both applicants and WG members. Under current procedures, all proposals must be discussed with relevant WG leadership before submission; WG members then review all submitted proposals; applicants present at a dedicated webinar; and final funding decisions are made at ASSW WG meetings. While each step serves a purpose, the cumulative burden on volunteers is substantial. A specific and actionable reform proposed by survey respondents: rather than requiring ECR-engagement components of proposals to individually negotiate euro contributions from each participating WG, proposals should simply be able to “request three ECRs” - a much simpler model that reduces administrative burden and makes ECR inclusion more practicable.

The adequacy of WG financial support was rated positively by only 40% of survey respondents. Multiple respondents noted that the volume of volunteer time required to administer small funding pools could be better directed toward scientific outcomes. One WG Chair described the “disproportionate person-hours that go into giving out relatively small pots of money” - a concern that the recommendations in this report directly address.

4.6 Working Group Operational Standards and Strategic Alignment

Working Groups currently operate without a consistent set of minimum standards, the following gaps were documented across data sources:

- No minimum meeting frequency is specified. Some WGs meet once per year; others more frequently. Given that cross-WG coordination requires regularity, a minimum standard is needed.
- WG reporting requirements are unclear. Council receives reports from WGs but without a consistent framework for evaluating them.
- Conflict of interest guidelines for WG proposal review processes exist within the IASC Proposal Review Guidelines, but their implementation across Working Groups is inconsistent. Ensuring consistent adoption of these guidelines is a governance priority.
- Large-country representation continues to dominate WG agenda-setting in some groups. One WG Chair noted they deliberately took the Chair role precisely to counteract single country domination. This is admirable but not a systemic solution.

A related and distinct gap concerns strategic alignment. While Working Groups contribute to strategic processes such as ICARP, systematic feedback loops between long-term IASC roadmaps and annual WG programming are not consistently in place. In practice, most WGs plan their annual activities without a clear line of sight to IASC’s strategic priorities for the year. The result is that WG work and IASC strategy can develop in parallel rather than in dialogue.

Developing performance indicators connecting WG activities to strategic outcomes - in consultation with WG Chairs, and kept deliberately light-touch - would improve accountability without adding significant administrative burden, and would give Council a more meaningful basis for strategic oversight.

The review also notes that early-career researcher integration into WG leadership and decision-making varies significantly across Working Groups. While the Fellowship programme is strong, the degree to which Fellows are genuinely included in WG governance depends heavily on individual WG Chair culture. Minimum standards for Fellow integration should be embedded in WG operational requirements.

4.7 ICARP: Valued Direction, Stronger Execution Needed

The International Conference on Arctic Research Planning (ICARP) is IASC led flagship community decadal process for identifying and communicating Arctic science priorities. The ICARP IV process is broadly regarded as directionally important: 80% of survey respondents agreed that IASC's strategic priorities are well aligned with community needs - the second-strongest result in the survey.

However, the execution of ICARP IV attracted consistent criticism:

- An output template for the Research Priority Themes (RPTs) existed and was further developed collaboratively with the RPT chairs, allowing for some individual variation in structure. Despite this, outputs across RPTs varied in depth and format, reducing overall coherence.
- Structured pathways for Working Group engagement within ICARP were established — each WG was invited to nominate a representative to the Steering Committee and members into the Research Priority Theme process — but these were not consistently taken up across all WGs despite repeated encouragement. Greater WG ownership of engagement pathways from the outset is recommended.
- There is no systematic mechanism for tracking how ICARP priorities influence national funding decisions. Previous ICARPs have been evaluated only anecdotally. ICARP remains largely invisible to the broader community beyond those already engaged with IASC. This “Impact Gap” is a strategic vulnerability: without demonstrable evidence that IASC priorities shape research agendas and funding calls — for example, through alignment with Horizon Europe or national Arctic research programmes — national representatives lack the data needed to advocate effectively for continued contribution and participation. Moving from anecdotal success stories to a robust, data-driven mechanism for tracking ICARP's reach is identified as essential for the next decade.
- Indigenous co-leadership of some RPTs was added reactively - after a community letter - rather than built in from the start. The review recommends that for ICARP V, this should be a design decision from the outset.

The ICARP concept is sound and should be continued. The execution requires structural improvement, including getting community ownership beyond IASC before the next ICARP cycle can begin.

4.8 The Social and Human Sciences Working Group (SHWG)

The Social and Human Sciences Working Group (SHWG) occupies a structurally disadvantaged position within the WG architecture. Multiple interviewees described the SHWG as effectively receiving equivalent funding to other WGs despite arguably broader disciplinary scope, more complex interdisciplinary coordination requirements, and a higher proportion of cross-cutting applications. Whether this reflects formal budget allocation or the practical dynamics of joint cross-cutting funding decisions, the effect is the same: the SHWG faces resource constraints that other WGs do not.

Several survey respondents proposed either splitting the SHWG into separate social science/humanities and Indigenous knowledge/research groups, or restructuring the funding model to allocate proportionally. The Review Committee does not make a structural recommendation on the SHWG's architecture - this requires consultation within the group and with SCII - but notes that equal treatment in an unequal situation is not equitable.

4.9 AI, Data Sovereignty, and Emerging Scientific Priorities

Multiple data sources raised the role of artificial intelligence in Arctic science as an emerging coordination need for which IASC has no current framework. As AI-assisted data analysis, autonomous observation systems, and large-model applications become integral to Arctic environmental monitoring, national capability differences will create new inequalities in scientific participation. IASC is well positioned to provide a coordination platform for AI-based Arctic science - addressing infrastructure gaps, data governance questions, and equitable access - but this role is currently unformalised.

Related concerns about data sovereignty - specifically the tension between open science principles and security-driven data restriction - will intensify in the coming decade. The Arctic Data Committee (ADC) - a joint IASC and SAON committee with a mandate for free, ethically open, and interoperable access to Arctic data - has been working on an updated IASC Statement on Data, which is expected to be brought to the 2026 Council meeting for approval - a timely and welcome development that this review fully supports. On data harmonisation for IPY5, a Data Task Group has already been established and begun its work; IASC should ensure it is adequately connected to and represented in this process.

A further emerging priority is the strengthening of engagement with Asian Arctic research communities. Several Asian nations have developed significant Arctic research programmes and are active contributors to international Arctic science, yet their integration into IASC's Working Group activities and governance structures does not yet reflect the scale of their scientific contribution. Proactive outreach to expand Asian participation - in WG membership, ICARP processes, and ASSW - is a strategic priority for the next decade, both for scientific depth and for the geopolitical breadth of IASC's membership.

4.10 Recommendations for the Future

REC 4.1 Structurally Address Cross-WG Silos

- Working Groups have been actively reforming ASSW business meetings over the past years - including moving technical proposal review discussions outside WG meetings to create more time for thematic dialogue. This positive direction should be continued and embedded as a structural norm: the annual cross-cutting meeting at ASSW should be oriented toward genuine cross-WG scientific dialogue on shared priority themes, rather than reverting to administrative formats.
- Mandate that Working Group meeting summaries are circulated to all WGs within a set timeframe of each meeting.
- Introduce a WG member identification system at ASSW (e.g., colour-coded name tags) to facilitate informal cross-WG connection.
- Establish at least one online inter-WG meeting per year on a shared Arctic priority theme, with Secretariat facilitation.
- Pilot two to three cross-WG task teams on priority interdisciplinary themes between now and IPY5, linked explicitly to IPY priorities.
- Develop structured pathways for cross-WG programming on integrated Earth system science themes, transdisciplinary questions, and topics requiring co-production with Arctic communities.

REC 4.2 Reform the WG Funding Model

- Review the cross-cutting funding model to ensure WG contributions to joint projects better reflect submission volumes and cross-cutting engagement, addressing the structural disadvantage experienced by some WGs.
- Allow ECR-engagement components of proposals to request a number of ECR places rather than negotiating euro contributions across multiple WGs.
- Commission an efficiency review of WG funding administration, assessing whether volunteer time invested in small-value grant decisions is proportionate to outcomes.

- Formalise and consistently apply minimum WG operational standards: minimum meeting frequency, mandatory reporting format, and consistent application of the conflict of interest and other existing guidelines.
- Embed Indigenous knowledge co-production principles into WG governance and funding criteria, ensuring that co-production is a structural requirement rather than an optional add-on.

REC 4.3 Improve ICARP Process Execution

- Build on the output template developed for ICARP IV to establish a more consistent and binding standardised format for Research Priority Theme documents in ICARP V, developed in consultation with RPT chairs from the outset and applied uniformly across all groups.
- Strengthen WG engagement pathways in the ICARP V process: while structured opportunities for WG participation were available in ICARP IV, uptake was uneven. For ICARP V, engage WG Chairs directly and early to build ownership, set clear participation expectations, and establish Secretariat-managed feedback loops with defined deadlines.
- Embed Indigenous co-leadership in ICARP V architecture from the design stage, in consultation with SCII and relevant Indigenous organisations.
- Develop a “Strategic Impact Tracker”: a systematic, data-driven mechanism to record where and how ICARP priorities appear in national and international funding calls (e.g. Horizon Europe, national Arctic research programmes) and research agendas. The Tracker addresses the identified “Impact Gap” — the absence of demonstrable return-on-investment data that prevents national representatives from making an evidence-based case for continued IASC contribution. Data from the Tracker should be compiled by the Secretariat, updated annually, and made available to Council delegates and ExCom as a standard advocacy resource.
- Commission a targeted communications campaign with partner organisation participants in ICARP to increase visibility in communities where uptake has historically been low.
- Develop IASC’s position on open science and data sovereignty in Arctic research.

REC 4.4 Strengthen Strategic Alignment and Accountability

- Develop a set of performance indicators connecting WG activities to IASC’s strategic objectives, in consultation with WG Chairs, to give Council a meaningful basis for strategic oversight.
- Establish systematic feedback loops between overarching IASC Strategy and priorities, and WG programming.
- Introduce periodic reviews of WG mandates – between IASC Strategy cycles, ICARP cycles - to assess whether the WG architecture remains well configured for the current and emerging Arctic science landscape.
- Set minimum standards for Fellow integration into WG governance, including a voice in priority-setting and access to leadership roles, embedded in WG operational requirements.
- Develop outreach and engagement strategies for Asian Arctic research communities, with the goal of strengthening their participation in WG activities, and in IASC in general.

Section 5: The Partner Interface - Diplomacy, Visibility, and Science-to-Action

5.1 Introduction: Context and Identified Challenges

IASC operates within a complex ecosystem of Arctic scientific, policy, and operational organisations. Its partner interface includes collaborations with Arctic and global scientific bodies, governments, and science-to-action organisations that translate knowledge into policy and societal outcomes. These partner relationships are not only scientifically strategic - governments and partner bodies are also significant sources of project support, investment in next-generation leadership, and operational funding for IASC itself.

Interviews and survey responses highlight that while IASC plays a vital convening role, several recurring challenges were identified:

- The expanding landscape of Arctic institutions has created coordination challenges, inefficiencies, and occasional duplication of effort that affects both IASC and its partners.
- Partners emphasised the need for stronger mechanisms to translate Arctic knowledge into policy action and to align the growing number of Arctic initiatives toward shared goals.
- IASC has uneven connections with action-oriented bodies, particularly those focused on mitigation and applied environmental solutions.
- IASC's contributions and leadership role in major Arctic initiatives are not sufficiently known among researchers and partner organisations beyond its existing network.

5.2 History and Where We Are Now

Over the past decade, IASC has established itself as a trusted, neutral, and effective convenor and facilitator within the Arctic research community. IASC's identity as facilitator and catalyst - rather than funder or implementer of research - is the most consistently validated characteristic across the entire review dataset. The survey item "IASC is effective at facilitating international research collaboration" was agreed to by 68% of respondents, and the organisation's convening function was the most frequently cited source of value across all open-text responses.

Stakeholders repeatedly described IASC as the "glue" holding together an otherwise fragmented international system of Arctic science and knowledge collaboration. This convening function has proven especially valuable during periods of political tension, when IASC's status as a non-governmental, science-led body allows it to maintain scientific connections across geopolitical boundaries that intergovernmental channels cannot bridge.

The MOSAiC expedition (2019–2020) provides the clearest illustration of what this facilitation role can achieve. IASC did not lead MOSAiC, fund it at scale, or own its scientific agenda. What it did was provide the institutional platform, convening credibility, and persistent international connectivity that allowed the idea to survive and ultimately to succeed as a twenty nation collaboration. Critically, IASC's endorsement and coordination enabled researchers to secure national funding and to develop an open international data policy that transformed what began as a national effort into a global scientific resource.

"MOSAiC succeeded in the frame of IASC. Because these nations kept on being connected. And they kept on being connected also when Russia fell out. And the door is still open."

- Partner organisation representative

This pattern - IASC as connective tissue holding international scientific relationships together through periods when political channels are closed - has become more important since 2022 than at any point in the organisation's history. The ability to keep Russian scientists in contact with the international community at researcher level, even as government-level relations have closed, is widely recognised as one of IASC's most important current functions.

Joint initiatives that advance Arctic knowledge and informed policy have further demonstrated the breadth of IASC's convening role. IASC organises the Arctic Science Summit Week (ASSW), which brings together the international Arctic science community annually. Separately, the Arctic Congress

— organised by UArctic, IASSA, and other partners — exemplifies interdisciplinary collaboration by bringing natural and social scientists into shared dialogue. While IASC is not a formal partner of the Arctic Congress, its members are active participants and the two events are complementary parts of the broader Arctic science calendar. These complementary events represent a model of Arctic science community-building worth building on.

IASC has also taken steps to increase its visibility and relevance with Arctic Indigenous Peoples' organisations in explicitly policy-facing settings. At the direct dialogue between Observers and Permanent Participants organised by the Arctic Council at Arctic Frontiers, IASC presented its relevant activities and partnerships to Permanent Participant representatives - an important step in making IASC's work accessible to organisations that have historically been more engaged with intergovernmental processes than with IASC's scientific community. Building on this kind of direct engagement is a priority for strengthening the relationship between IASC and Indigenous peoples' organisations.

5.3 Findings: A Complex and Crowded Landscape

Over the past decade, the number of organisations, initiatives, and platforms operating in the Arctic science and governance space has grown considerably. While this reflects the increasing global significance of Arctic change, it has also created coordination challenges that affect IASC and its partners. Interviews and survey responses identified three interrelated concerns that the review considers important for IASC's strategic positioning:

First, the expanding landscape of Arctic institutions has generated a degree of duplication and overlap that partners describe as operationally inefficient. Researchers and knowledge holders encounter multiple organisations pursuing similar objectives through parallel structures, which can fragment collective effort and dilute impact. IASC, precisely because of its neutral convening standing, is well placed to take a proactive role in identifying such overlaps.

Second, some partners noted confusion about respective mandates and areas of responsibility. A more deliberate effort to map roles, avoid duplication, and identify complementarities - particularly in relation to bodies working on similar scientific themes - would reduce friction and strengthen collective outcomes.

Third, the proliferation of organisations creates overhead costs - separate administrative systems, websites, communication platforms, and management structures - that represent a collective drain on the Arctic science community's limited resources. A number of respondents proposed exploring shared administrative services among Arctic institutions as a means of reducing overhead and improving efficiency. This idea - encompassing possibilities such as shared IT infrastructure, communications capacity, and web management - is worth examining in a structured way, potentially under IASC's convening leadership.

Key Finding: The expanding landscape of Arctic institutions has created coordination challenges and perceived duplication that IASC, as the trusted neutral convenor, is uniquely positioned to help address. Identifying duplication and clearer role delineation represent practical opportunities.

5.4 The Arctic Science Summit Week

ASSW is the premier annual gathering point for the international Arctic science community. Record attendance at Boulder 2025 confirms its continued growth and relevance. Multiple respondents described ASSW as IASC's single most valuable operational contribution: "just bringing people together is worth a tonne."

At the same time, ASSW faces structural tensions:

- ASSW is not reaching discipline-focused scientific communities that do not primarily identify with "Arctic science" as a field. Permafrost researchers, atmospheric scientists with strong

disciplinary society homes, and social scientists may not attend a broad Arctic gathering when their disciplinary conference better serves their professional needs.

- US-hosted ASSW in 2025 had access challenges for researchers facing visa or institutional travel restrictions, with disproportionate equity implications.
- A high conference registration fee for remote attendance is a barrier that disproportionately affects early career researchers and those from less well-resourced member states. IASC already provides travel and registration fee support to a number of ECRs each year, including coverage of online participation fees — a practice that should be recognised and continued via a standard budget line annually to ensure equitable and consistent access.

ASSW's connection to IPY5 planning presents an opportunity to significantly expand the event's reach. When anchored to a once-in-a-generation international programme, ASSW naturally becomes the place the entire Arctic science community feels compelled to be.

5.5 Key Partnerships: An Uneven Landscape

77% of survey respondents agreed that IASC's partnerships with other international organisations add significant value to Arctic science - a positive overall assessment. The qualitative evidence adds texture to this picture, revealing variation in partnership depth and mutual awareness that points to opportunities for further development.

5.5.1 Strong and Exemplary Partnerships

- Early career network partnership: The IASC partnership with the Association of Polar Early Career Scientists (APECS) is widely described as exemplary. The network's co-review of Fellowship applications - ensuring that early career researchers have a voice in Fellow selection - is cited by multiple interviewees as a gold standard model for meaningful, structural inclusion. It should be highlighted and replicated where possible.
- Polar counterpart: Cooperation on IPY leadership and joint programmes is functional and valued. POLAR 2030 - the joint IASC-SCAR Conference planned for 2030 in Incheon, Republic of Korea - is a significant upcoming milestone that should be developed as a genuine joint scientific and governance event rather than simply a co-located conference.
- CAFF and AMAP: Working relationships with these Arctic Council subsidiary bodies are substantive and valued by both sides.
- UArctic: The collaboration agreement is functional and both organisations are jointly engaged in IPY and Arctic Council work.
- Research infrastructure organisations: This partnership is growing and mutual.

5.5.2 Partnerships Requiring Attention

- Social sciences and humanities networks: Social sciences and humanities are an area where IASC's outreach to disciplinary communities is notably weak.
- International cryosphere science body: Significant overlap exists between IASC's Cryosphere and Terrestrial Working Groups and this organisation's membership, yet many of its members are unaware of ICARP or IASC's activities. Joint ASSW promotion to the community would benefit both organisations.
- Indigenous Peoples' organisations: Direct collaboration with the Inuit Circumpolar Council (ICC) and the Indigenous Peoples' Secretariat (IPS) represents an important and valued dimension of IASC's partner landscape. These relationships provide IASC with direct engagement with organisations that represent Arctic communities' interests at the international level. However, the review also found that an Arctic Indigenous peoples' organisation expressed explicit disappointment that some of the recommendations from the 2020 Action Group on Indigenous Involvement remain to be fully implemented. It is noted that some of those recommendations have been acted upon by IASC leadership, with the Standing Committee on Indigenous Involvement (SCII) — established in 2024 — now tasked with progressing the remaining items as it moves from structural set-up to substantive work.

- Global science bodies: The relationship is productive at IPY coordination level but IASC's research outputs do not effectively reach its networks. The relationship with global science bodies warrants review and strengthening given the global centrality of Arctic change.

5.6 Visibility Gap and the Ambassador

One of the most consistent findings across the review - raised independently by partner organisations, Working Group Chairs, ExCom members, and survey respondents - is that IASC is insufficiently visible outside its existing network. Peer polar science organisations are consistently described as better known. The IASC website presents navigation challenges even for engaged members. This is despite IASC maintaining a significant and growing portfolio of communications outputs: the annual IASC Bulletin, the monthly IASC Newsletter, and the IASC State of Arctic Science Report - published annually and aimed specifically at science managers, agencies, and policy-makers. The persistence of the visibility problem despite these outputs suggests the issue lies less in production than in distribution, targeting, and active advocacy.

The diagnosis points to a structural problem: the Secretariat is performing excellent work but cannot be everywhere at once. The solution proposed by a senior partner organisation representative is that IASC needs an ambassador model, in which national representatives, Working Group Chairs, and ExCom members are explicitly tasked with representing IASC at various fora, funding agency meetings, disciplinary conferences, and other events where Arctic science is discussed but IASC is absent.

"IASC needs to be even more brave - to fight for its position at the Arctic Council, at conferences where politicians and funding agencies are present. The more people who are actively visible and advocating for IASC, the better."

- Partner organisation representative

This is not a resource-intensive proposal. It requires a cultural shift: IASC representatives understanding advocacy as part of their role, supported by clear, concise, replicable messaging about IASC's unique value, products and current priorities.

5.7 Recommendations: Science to Policy and Science to Action

Multiple interview and survey respondents identified science-to-action as one of the most significant areas for development in IASC's partner interface. The challenge is not simply translating science into policy language - it is ensuring that research and knowledge co-creation outcomes more consistently inform practical solutions and policy implementation, and that the funding needed to make those activities feasible is effectively mobilised.

Partners emphasised that IASC has strong relationships with assessment-oriented Arctic Council bodies such as AMAP and CAFF, but has less consistent alignment with action-oriented bodies focused on mitigation, applied environmental solutions, and implementation. Strengthening these connections would extend IASC's reach into the full science-to-action chain and increase the societal relevance of its outputs.

ICARP has real potential as a science-to-policy and science-to-action tool, but its outputs do not consistently reach national funding agencies in a form that would facilitate alignment of funding calls with ICARP priorities. Nor do they systematically reach the practitioners, decision-makers, and community leaders who would benefit most from acting on them. IASC currently lacks a systematic post-ICARP advocacy and translation function. Developing one - through workshops with national funding agencies, targeted briefing papers, and structured engagement at Arctic Council working group sessions - is among the most impactful steps IASC could take to increase the societal value of its scientific work.

IPY5 represents a particular opportunity in this regard. The scale and global profile of the Fifth International Polar Year will draw in a wider range of partners than any previous IASC initiative. Integrating partner organisations early in IPY5 planning - including action-oriented bodies, government representatives, and community stakeholders - will ensure coordinated global participation, shared ownership of outcomes, and a stronger science-to-action pathway from the outset.

5.8 Recommendations for the Future

REC 5.1 Implement an IASC Ambassador Programme

- Formally task Council delegates, Working Group Chairs, and ExCom members with representing IASC at relevant external events as an explicit part of their role.
- Develop a concise IASC key messages document and ‘elevator pitch’ for “ambassadors”, updated annually by the Secretariat.
- Systematically seek representation at non-Arctic disciplinary conferences (AGU, EGU, SCAR assemblies, IPA congresses, IASSA meetings) to reach communities not currently engaged with IASC.
- Present IASC’s work actively at events attended by national funding agencies and policy-makers - with substantive events or presentations.
- Integrate partner organisations early in the planning of IPY5, ensuring coordinated participation, shared ownership of outcomes, and a science-to-action orientation from the outset.

REC 5.2 Strengthen and Renew Key Partnerships

- Review and renew MOUs as needed particularly for WG relevant organisations; develop a joint work plan for social sciences and humanities integration with WG activities.
- Deepen direct collaboration with the Inuit Circumpolar Council (ICC), the Indigenous Peoples’ Secretariat (IPS) and other Indigenous peoples organisations toward structured, ongoing engagement that is mutually designed and resourced.
- Strengthen the relationship with IPCC, WMO and other global organisations given the centrality of Arctic change to global climate assessments.
- Develop a post-ICARP science-to-action strategy: structured engagement with national funding agencies, government representatives, and action-oriented bodies to align funding calls and implementation activities with ICARP priorities.
- Develop a “Strategic Impact Tracker” in conjunction with the post-ICARP science-to-action strategy: systematically record where ICARP and other IASC priorities appear in national and international funding calls (e.g. Horizon Europe) and report this data annually to Council as a concrete return-on-investment resource for national representatives advocating for continued participation.
- Build stronger relationships with action-oriented Arctic Council bodies and organisations focused on mitigation, applied environmental solutions, and knowledge-to-practice translation, complementing existing strong ties with AMAP and CAFF.
- Explore shared administrative services - including IT infrastructure, communications, and web management - with other Arctic or polar institutions as a means of improving operational efficiency.
- Explore the feasibility of a joint Indigenous scientific advisory body, co-owned by Indigenous peoples.
- Remove or substantially reduce the remote ASSW attendance fee for those serving IASC voluntarily in various IASC bodies or groups, through increased budgetary allocations or requesting adhering bodies.

Section 6: The Arctic Resident Interface - Indigenous Peoples and Co-creation

6.1 Context and the Significance of This Interface

The Arctic Resident Interface reflects IASC's evolving commitment to meaningful partnerships with Arctic Indigenous Peoples and sovereign Arctic community organizations. While Arctic research has historically been led by external scientific institutions, there is growing recognition that ethical, equitable, and effective Arctic knowledge creation must involve co-development with Indigenous knowledge holders and community leaders.

Interviews and surveys indicate strong support for this shift but also reveal persistent structural barriers to equitable participation, including funding limitations, cultural mismatches in research processes, and the absence of consistent mechanisms for co-creation.

6.2 Progress Made

The review period has seen genuine and meaningful progress in IASC's engagement with Arctic Indigenous Peoples, and this progress must be acknowledged clearly before structural gaps are documented. IASC's specific investments during this period - the Fellowship Programme for Indigenous scholars, and the ICARP IV planning process with an Indigenous Co-Chair and Advisory Group - have made the organisation meaningfully more inclusive of Indigenous knowledge holders and early career researchers. The establishment and operation of the Standing Committee on Indigenous Involvement (SCII) and the growing visibility of Indigenous knowledge frameworks at ASSW add to a picture of real institutional change, achieved in a relatively short period.

Survey respondents described these changes as evidence of an evolving organisational culture that increasingly values Indigenous knowledge systems alongside Western scientific approaches. 58% of respondents rated IASC's incorporation of Indigenous knowledge and priorities positively. Several interviewees cited IASC's ICARP IV Indigenous co-leadership as a model they wished their own organisations would follow.

A concrete and encouraging indicator of demand is the utilisation rate of the SCII travel support fund. Funding available through the Standing Committee on Indigenous Involvement for travel support has been fully utilised in recent cycles - a clear signal that the barrier to Indigenous participation is primarily financial and logistical rather than a lack of interest. This full utilisation rate strengthens the case for a significantly expanded and ring-fenced Permanent Participation Fund, as recommended later in this section.

IASC's direct engagement with the Inuit Circumpolar Council, the Indigenous Peoples' Secretariat, and other Arctic Indigenous organisations - including through the direct dialogue between Observers and Permanent Participants at Arctic Frontiers, where IASC presented its activities and partnerships to Permanent Participant representatives - reflects a genuine and growing commitment to making IASC's work visible and relevant to the organisations that represent Arctic communities at the international level.

"It was the first time scientists and officials from our country had direct, structured contact with Indigenous peoples in a scientific setting. It changed how we understand Arctic research."

- Respondent, describing ICARP IV

However, respondents also emphasised that much of this progress continues to rely on individual relationships and informal efforts rather than on changes to institutionalised structures of governance and knowledge creation. As a result, engagement remains uneven and largely dependent on the availability of Arctic Indigenous participants, many of whom are (1) already over-tasked with significant leadership responsibilities at the local, national, and international levels, and (2) often lack consistent financial support for their engagement, leadership, and knowledge sharing activities.

6.3 Findings: The Implementation Gap

Consultations highlighted several key themes regarding Indigenous engagement in IASC activities:

- IASC should move even further beyond symbolic commitments to Indigenous engagement and towards investments in practical, structural mechanisms that enable genuine Indigenous co-creation in Arctic research and governance.
- IASC should establish a dedicated funding mechanism to support Indigenous participation in IASC activities, recognizing that travel costs, time commitments, and expertise require reliable, consistent financial support.
- IASC should address structural barriers to sustained engagement, as Indigenous organizations often face significant constraints when participation relies on the limited or ad-hoc funding noted above and/or is focused on outcomes that do not necessarily resonate with Arctic Indigenous communities' needs.
- Building on the note above, IASC should involve Indigenous partners at the earliest stages of research design, ensuring that research questions and priorities are co-developed to include community interests rather than being introduced to potential Indigenous partnership after projects are already defined.
- IASC should do more to recognize and address the isolation experienced by Indigenous participants in predominantly Western scientific environments. For example: IASC should recruit cohorts of Indigenous fellows, rather than individuals, to create peer support networks and reduce the burden of being the only Indigenous participant in a research setting.
- IASC should undertake even more proactive outreach to Arctic community organizations, expanding its engagement beyond existing academic networks and ensuring broader representation of Arctic Indigenous perspectives.

Key Finding: The gap between IASC's stated commitment to Indigenous co-production and the structural changes that would make this commitment irreversible is the central equity finding of this review.

An Arctic organisation expressed explicit disappointment at the absence of Indigenous representation in the Executive Committee. One respondent, observing participation dynamics at ASSW directly, noted that “Indigenous participants still remain in a kind of reservation - they should be the overarching leaders of research in their homeland.”

This review does not question the sincerity of IASC's commitment. It does find that commitment has not yet been translated into the structural changes that would make it self-sustaining. A central part of the problem is financial: Indigenous organisations often face significant constraints when participation relies on limited or ad-hoc funding, and when engagement is focused on outcomes that do not necessarily resonate with Arctic Indigenous communities' own needs and priorities. Structural change requires structural funding.

6.4 The Tokenism Risk and the Co-design Imperative

Multiple data sources converge on the risk of tokenism - of Indigenous participation that is present but not powerful. Being invited to a meeting is not the same as co-designing the agenda. Attending ASSW is not the same as co-producing research. One respondent articulated the distinction precisely: the goal must be to make Indigenous engagement “less driven by scientists and more from the people.”

A specific and structural dimension of this risk is the timing of Indigenous involvement. Across multiple interviews, respondents noted that Indigenous partners are frequently introduced to research projects after questions and methods have already been defined - invited to participate in processes shaped entirely by Western scientific priorities. Genuine co-creation requires Indigenous engagement at the earliest stages of research design, so that the questions being asked, the methods being used, and the outcomes being sought reflect community interests as well as scientific ones. IASC's guidelines, training, and funding structures should be designed to make early co-design the norm rather than the exception.

This review found that a minority of the IASC community - reflected in a few survey responses and implicitly present in some interview commentary - views the emphasis on Indigenous engagement as excessive, politically driven, or threatening to scientific independence.

The Review Committee does not share this view. The scientific case for Indigenous knowledge co-production is strong: it improves the quality of environmental observation, fills spatial and temporal gaps in instrumental records, and grounds research questions in locally meaningful priorities. But the review notes this tension honestly, because addressing it - through concrete examples of knowledge integration improving research outcomes, and through structured opportunities for sceptical scientists to engage respectfully with Indigenous knowledge holders - is part of the work that must be done.

Additionally, the practical barriers to genuine co-leadership are well-documented:

- **Funding:** Elder and Knowledge Holder participation requires compensation and logistical support that standard scientific travel grants do not cover. Funding should be dedicated, ring-fenced, and designed for community participation rather than standard scientific conference attendance.
- **Research fatigue:** Arctic Indigenous communities face very high volumes of engagement requests. Multiplying engagement events without building on existing relationships of trust is extractive, not collaborative. The review heard explicitly that the answer is to build on existing trust, not create new structures from scratch.
- **Language and communication norms:** Scientific meeting culture is not designed for Indigenous knowledge-sharing. IASC should invest in training its scientific community to communicate adaptively across different knowledge systems.
- **One Indigenous Fellow at a time is insufficient,** as acknowledged by Fellows themselves, Indigenous peoples' organisations, and survey respondents alike. The Fellowship programme's impact on Indigenous co-production depends on the critical mass of Indigenous perspectives within the cohort.

6.5 Good Practice Models Worth Adapting

Survey respondents and interviewees identified several good practice models that IASC could study and adapt to its context:

- The Inuit Circumpolar Council's co-production frameworks, which provide structured protocols for researcher-community engagement.
- ELOKA (Exchange for Local Observations and Knowledge of the Arctic), which has developed community data sovereignty practices directly relevant to IASC's work.
- ArcticNet (Canada), which requires Indigenous co-PIs on funded research and provides dedicated translation support, staff assistance with grant applications, and ring-fenced community participation funding.
- The Belmont Forum's multi-country participation requirements, which structurally embed equity across national partnerships.

6.6 Recommendations for the Future

REC 6.1 Advance Structural Co-production and Inclusion

- Adopt clear ethical research guidelines that structurally require early co-design with Indigenous communities - ensuring that research questions, methods, and priorities are co-developed with Indigenous partners from the outset, rather than introduced after project definitions are set.
- Explore the feasibility of a dedicated Indigenous scholar position within the Secretariat.
- Develop a scientist communication training programme for the IASC community, focused on respectful and adaptive engagement with Indigenous knowledge holders.
- Study and adapt the ArcticNet and ELOKA models for community data sovereignty, Indigenous co-PI requirements, and ring-fenced community participation funding.

- Commission concrete documentation of examples where Indigenous knowledge integration has demonstrably improved Arctic research outcomes - to address sceptical voices with evidence rather than assertion.
- Undertake proactive outreach to a broader range of Arctic Indigenous community organisations, extending IASC's engagement beyond existing academic networks to ensure more diverse representation of Arctic Indigenous perspectives.
- Consider including Indigenous youth organisations in outreach and engagement activities, alongside established representative bodies.

REC 6.2 Establish a Permanent Participation Fund and Shared Advisory Structures

- Establish a Permanent Participation Fund to provide reliable, consistent financial support for Indigenous experts and organisations to engage as equal partners in IASC activities. This fund should cover travel costs, compensation for time and expertise, and logistical support designed for community participation rather than standard scientific conference attendance.
- Work with Indigenous leaders and other Arctic organisations to explore the development of shared Indigenous advisory structures that serve multiple Arctic institutions simultaneously - reducing the burden placed on the limited number of Indigenous experts currently asked to contribute to multiple international forums in parallel.
- Invest in targeted outreach to Arctic community organisations that are not yet part of IASC's networks, with dedicated follow-through to build relationships of trust rather than one-off engagement events.
- Communicate proactively to national adhering bodies and partner organisations that Indigenous expertise is foundational to understanding and governing the Arctic - not supplementary - and that financial and institutional support for Indigenous participation is part of member responsibilities.

Key Finding: Indigenous expertise is foundational to understanding and governing the Arctic - not supplementary. The structural changes needed to make IASC's commitment to co-production self-sustaining are well-identified, largely affordable, and long overdue.

Section 7: The Early Career Interface - Fellowships and Future-Proofing

7.1 Introduction: Context and Identified Challenges

The Early Career Interface encompasses IASC's relationship with the next generation of Arctic scientists - principally through the Fellowship Programme, but also through the IASC-FOX alumni network, and early career representation in Working Group activities. Investment in early career researchers is both a scientific and a strategic priority: the people IASC engages today are the national delegates, Working Group Chairs, and scientific leaders of the next decade.

The Fellowship Programme is the highest-rated aspect of IASC across the entire review dataset, with 90% of survey respondents agreeing it provides valuable opportunities for early career researchers. This strongly positive overall assessment coexists with several structural challenges identified in interviews and surveys:

- Absence of structured onboarding, leaving Fellows without role clarity, welcome materials, or introductions to Fellows in other Working Groups.
- Isolation of Indigenous Fellows, who often serve as the sole Indigenous participant in their Working Group environment.
- Inter-cohort connection: The Fellowship coordinator organises regular online meetings throughout the year and in-person gatherings at ASSW to bring Fellows together across Working Groups. Attendance at these meetings is inconsistent, limiting the collective impact of the cohort and the cross-WG perspective the programme is designed to foster.
- A dedicated Fellowship budget line exists within the IASC budget, covering travel support for Fellows to attend their first two ASSWs. Funding for the final two years of the Fellowship is not guaranteed as part of the core programme, and Fellows must compete for WG or cross-cutting funds for additional activities beyond ASSW attendance.
- A “cliff” at the end of the Fellowship, with no structured pathway to remain engaged - representing a significant loss of IASC-literate human capital.

7.2 History and Where We Are Now

The IASC Fellowship Programme is the highest-rated aspect of IASC in the quantitative data. 90% of survey respondents agreed that IASC provides valuable opportunities for Early Career Researchers - the strongest result in the entire survey. This exceptional result is consistent across all qualitative sources and is one of the most genuinely encouraging findings of the entire review.

The programme's significance extends well beyond individual career benefit. Across the review dataset it is described not merely as a career booster, but as a structural intervention that has successfully diversified the Arctic research community and created a new generation of leaders who are “literate” in international science cooperation. This is a rare and consequential achievement for a voluntary, non-governmental organisation of IASC's size.

Fellows consistently describe the programme as a “career accelerator” - and are equally consistent that its primary value lies not in direct publication output, but in networking and learning science governance: skills that are rarely taught in educational programmes and that typically take years to acquire by other means. The Fellowship provides a unique “behind the scenes” look at international science diplomacy, allowing ECRs to observe and participate in how priorities are set, partnerships are built, and decisions are made at the international level. One Fellow described the programme as opening “many doors - networking, insights into different career types, opportunities to be involved in Arctic research and science-policy activities, and a great example of global interdisciplinary science collaboration.”

The structural features of the programme contribute to its success: The programme runs for up to three years (structured as one funded year plus two optional years), ensuring knowledge handover between cohorts. In the first funded year, Fellows receive travel support to attend two consecutive ASSWs; in years two and three they may continue on a voluntary basis. A partner early career network (APECS) conducts a blind review of Fellowship applications - cited across multiple data

sources as a gold standard model for ECS inclusion - with final selection made by Working Group Steering Groups. Fellows have evolved from passive observers to active contributors leading WG initiatives. This positive trajectory over the review period reflects an organisation that has genuinely learned and improved.

The growth in application numbers is itself a strong signal of programme health and unmet demand. Applications to the Fellowship programme have grown substantially over the review period, with the Indigenous Fellow position seeing particularly strong growth in competitive applications. This growth reflects both the increasing profile of the programme and a genuine appetite among early career Arctic researchers for structured international engagement - and it creates a strong argument for expanding the number of Fellowship positions available, particularly for Indigenous Fellows.

A significant development during the review period has been the partnership with the Prince Albert II of Monaco Foundation (PA2F), which has provided dedicated external funding for Fellowship positions. This partnership, formalised in 2022, has enabled IASC to offer additional Fellowships beyond the six standard IASC Fellowships, five per Working Group plus one Indigenous Fellowship (a planned expansion is in place for core-funded Fellowships to a total of 8 from 2026). In addition to these core funded fellowships, Science Diplomacy Fellowships are offered through a partnership with the PA2F. The PA2F partnership is a model that demonstrates both the Fellowship's external credibility and the potential for external philanthropic investment to expand the programme's reach and diversity.

"They went from people who sat in the corner of the room and listened, to people who have become much more interwoven with the fabric of IASC."

- Working Group Chair

The Fellowship's broader contribution to IASC's culture is also evident in ICARP IV, which was significantly more inclusive than previous cycles. The "bottom-up" approach - with extensive and structured engagement of early career researchers and Indigenous representatives in research priority-setting - was widely praised across the review dataset. This inclusivity is widely seen as a major success for IASC's evolving culture and a model for how future ICARP cycles should be designed.

7.3 Findings: Operational Gaps

Despite the programme's overall strength, several operational gaps are well-documented and confirmed by Fellows themselves:

7.3.1 Onboarding and Role Clarity

The most frequently raised concern about the Fellowship programme is the absence of Fellow-specific structured onboarding. An onboarding document exists for new WG members and is typically shared with Fellows, but it is written for WG members generally and does not address the specific questions and needs of incoming Fellows. The experience of individual Fellows varies enormously depending on the WG Chair's engagement style - a structural problem, not an individual one. The proposal from Fellows themselves is specific and low-cost: the existing welcome document (for WGs members) should be rewritten to be Fellow-specific — covering what IASC and ASSW are, what is expected of Fellows, and how to connect with others in the cohort — a targeted one-pager to orient new Fellows from day one.

7.3.2 Indigenous Representation and the Isolation Problem

The Indigenous Fellow position was an important structural commitment. But one Indigenous voice in a cohort cannot constitute genuine inclusion, and the review heard about the additional weight carried: navigating a predominantly Western scientific culture, managing the burden of representing an entire knowledge tradition, and serving as the sole Indigenous voice in a large multinational forum.

The psychological dimension of this isolation was described with particular clarity in one testimony: the experience of "loneliness" as the only Indigenous person in the room, in meeting after meeting, across an entire fellowship term. It is a structural barrier to the kind of genuine intellectual contribution that the programme aspires to enable.

A specific and high-value recommendation that emerged is to move away from recruiting single Indigenous individuals into Western-dominated spaces, and instead to recruit Indigenous cohorts - clusters of three to four Fellows - to provide a critical mass of peer support. This model, familiar from other diversity and inclusion contexts, reduces the psychological burden of being “the only one in the room,” enables Fellows to support one another, and creates the conditions for genuinely collective Indigenous voice rather than tokenistic individual representation.

“It is not reasonable to ask one person to carry the full weight of Indigenous representation. A cohort changes everything - you have people who understand your experience, and you can actually focus on the science.”

- IASC Fellow

7.3.3 Fellowship Funding Beyond ASSW Attendance

IASC has a dedicated Fellowship budget line that funds travel support for Fellows to attend their first two ASSWs. Beyond this, funding for Fellowship activities is not guaranteed as part of the core programme: Fellows wishing to participate in additional activities such as strategy workshops or special WG events must compete alongside other WG members for annual cross-cutting and WG funding calls. WGs that wish to engage Fellows in additional activities are expected to fund this from their own WG budgets. A senior representative of a peer polar science organisation described the limited scope of guaranteed Fellowship funding as concerning, noting the importance of committed institutional funding for programme integrity. The PA2F philanthropic partnership provides a positive model for sustainable external support and such external funding support could be used to build upon existing core funding availability to further enhance what is already an almost universally appreciated product within IASC.

7.3.4 Post-Fellowship Transition and the IASC-FOX Network

The IASC-FOX alumni network - established by a past Fellow - fills an important gap by maintaining post-programme connections and community among Fellowship alumni. However, it is currently coordinated by a single volunteer. The network lacks a reliable travel grant to enable attendance at ASSW, and the connection between current Fellows and FOX has varied: one current Fellow reported not having received contact information for Fellows in other WGs.

The transition out of the Fellowship is a structural gap: Fellows who have invested significantly in IASC, and whose institutional knowledge and networks are most fully developed at the point of departure, have no formal pathway to remain engaged. This creates a recurring loss of experienced, committed community members.

“The transition out of the fellowship is a weak point. Fellows are well-supported during tenure, but then fall off the engagement ladder entirely.”

- Survey respondent

The metaphor of falling off a “cliff” recurs across testimonies. What is needed in its place is a “ladder of engagement”: a structured progression that supports ECRs through the fellowship and into mid-career leadership roles, with IASC providing both the rungs and the institutional scaffolding. The IASC-FOX network is the natural vehicle for this, but only if it is properly resourced. In its current form, FOX represents a pool of highly trained, IASC-literate scientists who are progressively losing their connection to the organisation. Actively investing in this network would allow IASC to tap a uniquely prepared community for future leadership, advisory, and mentoring roles - at relatively low cost compared to the value they represent.

7.3.5 Inter-Cohort Isolation and Working Group Silos

A less-reported but consistently raised concern is the variable level of cross-WG connection that Fellows experience. Despite being part of a shared Fellowship cohort, and despite the Fellowship coordinator organising regular online meetings and in-person gatherings at ASSW for all Fellows throughout the year, attendance at these meetings is uneven. Some Fellows reported limited contact with peers in other WGs during their term. The result in such cases is a cohort that exists on paper but not in practice: individual Fellows embedded in disciplinary silos, without the cross-WG perspective that the programme’s design intends.

This is a missed opportunity on two levels. First, cross-disciplinary connection is one of the most distinctive things IASC can offer that national programmes cannot; failing to create it within the Fellowship cohort undermines a core comparative advantage. Second, the inter-WG relationships formed during a fellowship are precisely those that generate the kind of interdisciplinary collaboration IASC is trying to promote at the organisational level.

The coordinator-led cohort meetings already in place are the right mechanism, but the low knowledge and participation points to a structural issue. The priority activity needed is improving participation and making attendance an expected part of Fellowship engagement. Strengthening the visibility and promotion of these gatherings — and considering how a dedicated session at ASSW could be structured to make attendance compelling and practical for all Fellows — would significantly strengthen cross-WG bonds. Several Fellows noted that simple planned activities like a group dinner or informal online gatherings at ASSW or other relevant occasions would make a meaningful difference, and should be continued by the Fellowship coordinator.

7.4 The Fellowship and IPY5

IPY5 presents an exceptional opportunity to expand and enhance the Fellowship programme. The scale of international coordination required provides natural anchoring points for Fellowship activities: coordination roles, cross-WG thematic groups, science communication, and outreach. Fellows could play a central role in IPY5 planning and delivery if given clear mandates, appropriate structural support, and sufficient advance planning time.

7.5 Digital Presence and the Fellowship's Online Identity

The Fellowship programme's standing within IASC's own organisational identity merits specific attention. As currently structured on the IASC website, the Fellowship sits under a "Capacity Building" tab - the last in the navigation row and a category that does not intuitively capture the programme's significance. Given that the Fellowship is now one of IASC's most established and celebrated functions, its placement should reflect its centrality. Giving it a dedicated top-level section would more accurately represent its role in IASC's organisational identity and further improve its visibility to prospective applicants and external audiences.

The same navigation review should address the IASC Medal, which currently shares a category with the Fellowship programme. Giving the Medal its own distinct section would both improve its visibility and create cleaner conditions for implementing the recommendations on Medal reform set out in this report.

Beyond navigation, the treatment of individual Fellows on the website is an area with significant untapped potential. Several improvements are recommended:

- Each Fellow profile should include a photograph (with the Fellow's consent), structured in the same format as IASC Council member profiles, to give the Fellowship cohort a visible human identity on the website.
- Each Fellow should be invited to provide a short biography including their scientific focus and what they hope to achieve through the Fellowship and international Arctic collaboration. This information should be accessible via the Fellow's profile page, making the cohort legible to the wider community.
- An interview series - short, structured conversations with Fellows about their research, their experience of the programme, or a particular initiative they are leading - would provide a "live" and regularly updated presence on the IASC website that showcases the programme's vitality. This is a relatively low-cost communications initiative with high potential return in terms of visibility and applicant attraction.

The Review Committee notes that these communications initiatives require personnel capacity that the current Secretariat does not have. This points to a broader opportunity: member states could contribute to IASC's communications and outreach capacity directly - by seconding staff, providing in-kind support through their national research institutions, or embedding a communications function within a member country's existing Arctic science infrastructure. This model of in-kind national

contribution, alongside financial membership fees, is worth exploring as IASC prepares for the expanded demands of the IPY5 period.

CASE STUDY - D.1

The IASC Fellowship Programme

Established 2014 | ~88 Fellows to date | 3-year model | Indigenous Fellowship since 2020 | 90% of survey respondents rate ECR support positively

Why it works

Fellows are embedded for three years within Working Groups, ensuring sustained knowledge transfer and genuine integration into IASC's scientific and governance activities. A partner early career network co-reviews all applications - a gold-standard model for structural ECS inclusion. Alumni testimonies are consistently strong: the programme opens career pathways, international networks, and science-policy exposure that are otherwise inaccessible to early career researchers.

Key gaps identified

No Fellow-specific onboarding; an existing welcome document written for WG members is circulated but does not address the specific needs of incoming Fellows, leaving role clarity and cross-WG introductions to individual WG Chair initiative. Cross-WG cohort connection: coordinator-led meetings exist but attendance is inconsistent, limiting the collective impact of the cohort. Typically one or two Indigenous Fellows per cycle has placed an unsustainable burden on those individuals. The post-fellowship "cliff": experienced alumni have no structured pathway to remain engaged, representing a significant loss of human capital.

Priority actions

Strengthen participation in coordinator-led cross-WG cohort meetings; move to cohort-based Indigenous recruitment (3–4 per cycle); extend Fellowship funding coverage (beyond the first two ASSWs) to better support Fellows throughout their full term; build a "ladder of engagement" post-fellowship; resource IASC-FOX as a leadership pipeline. See REC 7.1, REC 7.2 and Appendix A.6.

→ Full analysis: Appendix D

7.6 The IASC Medal

IASC operates the IASC Medal, awarded for exceptional and sustained contributions to Arctic science. A full case study is presented in Appendix D.2.

A quantitative analysis of all IASC award recipients (16 Medal recipients and 5 Awards for Service) since 2010 reveals significant diversity gaps: only 19% of recipients have been women; 57% have been affiliated with US institutions; Asian-origin scientists are represented by a single recipient - Dr Atsumu Ohmura (2021 Medal), who is Japanese-born; and the first Indigenous recipient was Professor Dalee Sambo Dorough, awarded the 2022 Medal. The nomination process is identified as a critical failure point: the high administrative burden discourages participation and systematically narrows the candidate pool.

CASE STUDY - D.2

The IASC Medal

Recipients since 2010: 21 (16 Medals + 5 Awards for Service) | Women: 19% | US-affiliated: 57% | Asian: 1 (Dr Ohmura, 2021) | Indigenous: 1 (Prof. Dorough, 2022)

Core finding

The awards, as currently operated, sit in tension with IASC's strategic goals for equity, diversity, and inclusion. The main Medal has operated primarily as a retrospective lifetime achievement award for senior scientists, which limits its relevance to mid-career and early

career researchers and failing to recognise mentorship, collaborative leadership, or Indigenous knowledge partnership.

Why participation is low

The official nomination process requires a nominator to compile a single PDF containing multiple attachments and supporting materials. This high-burden process creates a self-reinforcing cycle: friction leads to a small and non-diverse candidate pool, which leads to low-profile outcomes, which further reduces the incentive to nominate.

Priority actions

Replace the single-PDF nomination with a two-stage low-barrier process; introduce thematic award categories to broaden the definition of excellence; attach a meaningful prize (e.g. extending the ASSW travel grant for recipient to include their ECR mentees); establish a proactive nominations canvassing committee; maintain and further elevate the Medal Lecture as a premier ASSW plenary activity. See Appendix D.2 for full recommendations.

→ *Full analysis: Appendix D*

7.7 Recommendations for the Future

REC 7.1 Strengthen the Fellowship Programme

- Develop and distribute a structured Fellow onboarding package: role description, WG structure guide, contact list of all current Fellows across WGs, and a WG Chair introduction protocol.
- Strengthen participation in the coordinator-led cross-WG cohort meetings that already take place online throughout the year and in-person at ASSW. Attendance should be an expected part of Fellowship engagement, and the dedicated ASSW session should be structured and promoted to make it compelling for all Fellows across Working Groups.
- Move from recruiting single Indigenous individuals to recruiting Indigenous cohorts of three to four Fellows per cycle, providing critical mass for peer support and enabling genuinely collective Indigenous voice within the programme.
- Increase total Indigenous Fellow positions accordingly, with dedicated outreach to Indigenous communities and institutions to build a strong and diverse applicant pipeline.
- Build on the existing dedicated Fellowship budget line (which currently covers support for attending 2 ASSW) by exploring options to extend funding support to cover a broader range of Fellowship activities beyond ASSW attendance, and pursue external funding partnerships (building on the existing philanthropic model).
- Build a formal “ladder of engagement”: a structured post-fellowship pathway - including an IASC alumni category with defined access to WG meetings, proposal review roles, and mentoring responsibilities - that prevents the cliff-edge loss of talent at the end of each term.
- Resource the IASC-FOX alumni network as a strategic leadership pipeline: provide a support allocation, a travel grant for attendance at ASSW, and a defined role for FOX alumni in mentoring current Fellows.
- Set minimum standards for WG engagement with Fellows: WGs must assign Fellows substantive tasks and voice, not merely passive attendance.
- Develop structured roles for IASC Fellows in IPY5 planning and coordination, beginning in the current strategic planning cycle.

REC 7.2 Strengthen the Fellowship’s Profile and Digital Presence

- Relocate the Fellowship programme from the “Capacity Building” tab to a more prominent position in IASC’s website navigation to reflect its centrality to IASC’s mission.

- Give the IASC Medal its own distinct website section, separate from the Fellowship, to improve its visibility and support the reform agenda set out in this report.
- Develop rich Fellow profiles on the IASC website: photo, short biography, scientific focus, and fellowship goals - structured consistently and updated each cohort.
- Launch a Fellow interview series as a regular feature on the IASC website, showcasing Fellows' research and experiences to build visibility and attract diverse future applicants.
- Explore in-kind secondment or communications support from member states as a mechanism for expanding Secretariat capacity for outreach and digital engagement, particularly in preparation for IPY5.

Section 8: The Administrative Interface - Secretariat, Finance, and Resilience

8.1 Introduction: Context and Identified Challenges

The Administrative Interface encompasses the IASC Secretariat, its operational and financial systems, and the structural conditions that determine IASC's institutional resilience. Although less visible than the scientific programmes, the Secretariat's capacity and stability underpin every other aspect of IASC's functioning.

The review identified several recurring challenges across interviews and survey responses:

- Over-reliance on exceptional individuals rather than robust institutional systems - a “hero model” that creates acute single-point-of-failure risk.
- Secretariat core funding dependent on a single host country, creating financial concentration risk.
- No emergency handover documentation for key operational roles.
- Inequitable participation caused by volunteer-dependence.

8.2 History and Where We Are Now

The central IASC Secretariat has been hosted since 2017 by Rannis - the Icelandic Centre for Research - in Akureyri, Iceland. It operates with three to four staff members: one full-time and two to three part-time, responsible for the day-to-day operations of the organisation. The central Secretariat is supplemented by the dispersed Secretariat, which draws on volunteer support from individuals and institutions across IASC member countries, particularly to support the growing volume of activities undertaken by the Working Groups and in early career researcher development.

The IASC Secretariat is the operational engine of the organisation. Its performance during the review period has been widely and consistently praised across all stakeholder groups. 76% of survey respondents rated Secretariat support positively. Interviewees from partner organisations, Working Groups, and the Executive Committee were unanimous in describing the team as performing far beyond what would be expected of a small, under-resourced staff.

This praise comes with a significant caveat that the review must state plainly: the Secretariat's quality is both its greatest operational strength and its most critical institutional vulnerability. An organisation that performs well because of exceptional individuals rather than robust systems is not a resilient organisation.

8.3 Findings: The Single Point of Failure

The finding that the IASC Secretariat constitutes a single point of institutional failure was raised independently by multiple partner organisations, IASC leadership, and survey respondents. It encompasses three related concerns:

- The Executive Secretary role concentrates an extraordinary volume of institutional knowledge, relationships, and operational responsibilities in one person. With only one full-time member of staff in the central Secretariat, a sudden incapacity would significantly affect IASC's operational continuity - a classic “hero model” dependency that the organisation has not yet structurally recognised or addressed.
- The Secretariat's core operational funding depends on a single host country. While this arrangement has functioned well, it represents a structural financial concentration risk: a change in the host country's funding priorities or capacity could destabilise the Secretariat's operations with little warning. Broadening the funding base for core Secretariat operations - through a defined Secretariat support contribution from member states would significantly reduce this exposure.
- IASC is not a legal entity in Iceland, which creates vulnerability in the event of a need to enforce contracts, receive large grants, or manage liability. This is a structural governance issue requiring legal and governance attention.

- Emergency handover documentation does not exist in any practical form. While planned handovers have been managed well, an unplanned departure would create significant institutional disruption. IASC's records are not fully digitised, and no emergency handover pack exists.

One senior partner representative described the Secretariat as “massively under-resourced” relative to a comparable polar science body's secretariat, which is substantially larger and better structured. This comparison is instructive: greater secretariat capacity in peer organisations is at least partially attributable to having greater communications and outreach infrastructure.

The review identifies an “FTE Mapping” exercise as an urgent operational priority. A formal, data-driven audit of Full-Time Equivalent (FTE) workload versus current staff capacity is required to translate the widely acknowledged “under-resourced” characterisation into an evidence base that Council and ExCom can act on. IASC's expanded mandate — encompassing complex global initiatives including IPY5, the UN Decade of Cryosphere, and a growing partnership portfolio — has not been matched by a corresponding increase in Secretariat staffing. The organisation currently relies on the extraordinary personal efforts of a small number of individuals rather than a resilient institutional system: a model that carries tangible burnout risk and creates operational vulnerability. An FTE Mapping exercise would provide that evidence base, de-risk the current model, and give ExCom a principled basis for resource planning ahead of the IPY5 decade.

“Excellent current leadership is, ironically, a risk. When there is a change of leadership, attracting an equally suitable person will be a serious challenge. That transition needs to be planned now, not when it becomes urgent.”

- Survey respondent

As the successful partnership with the Prince Albert II of Monaco Foundation (PA2F) for the fellowship scheme, external funding should be investigated for supporting other deserving projects or activities of IASC.

8.4 Volunteer Dependence and Participation Equity

IASC's operations depend heavily on the voluntary time, and in many cases the personal or grant funds, of Working Group members, Council delegates, and ExCom members. The dispersed Secretariat model - formally acknowledged in IASC's own documentation - distributes operational support functions across volunteer contributors in member countries, which is both a strength and a structural fragility, carrying inherent burnout risk and inconsistent capacity. This dependence has several concerning implications:

- Researchers who can afford to participate in ASSW and Working Group meetings - because their institutions fund travel generously or because they have access to large grants - are systematically over-represented in IASC's governance. Those who cannot participate are systematically under-represented.
- A fee for remote ASSW attendance is particularly anomalous given that ASSW meetings are officially organised in a hybrid format and that member countries' adhering bodies are expected to fund travel for in-person attendance. Charging a significant additional fee for remote access - to people already volunteering their time in service of IASC - is inequitable and disproportionately affects early career researchers and those from less well-resourced institutions.
- The disproportionate time required to administer small funding pools through WG proposal review was explicitly identified by multiple respondents as a poor use of volunteer time. The current model asks a great deal of volunteers for marginal financial outputs.

“It runs on a lot of volunteer time, effort, and people taking funds away from their grants or personal money. The fact that those in the service of IASC have to do that [...] is not good.”

- Survey respondent

8.5 Legal Status

The broader legal personality question - whether IASC should formally incorporate as a legal entity in its host country - has more complex implications for taxation, contract management, grant receipt, and governance structure. A formal legal analysis is recommended to be commissioned to assess various options and their consequences before a decision is tabled.

8.6 Operational Standards

Several operational standard gaps were identified that are individually minor but collectively represent a fragility in IASC's institutional infrastructure:

- WG reporting requirements are unclear. Council receives reports but without a consistent framework for evaluating them against expectations.
- No systematic framework exists at WG level for tracking research outputs funded through IASC grants.
- Records are not fully digitised; this creates knowledge loss risk at each personnel transition.

None of these gaps is difficult to address. Together they represent a low-cost opportunity to significantly strengthen IASC's institutional infrastructure.

8.7 Recommendations for the Future

REC 8.1 Address the Secretariat Single Point of Failure

- Conduct an "FTE Mapping" exercise: commission a formal, data-driven audit of Full-Time Equivalent workload versus current Secretariat staff capacity, covering all functions including scientific programme support, partnership management, communications, and IPY5 preparation.
- Develop an emergency handover document and protocol for all key Secretariat roles, reviewed and updated annually.
- Explore options for strengthening Secretariat second-person capacity, including through shared services with partner organisations.
- Note that the current hosting arrangement with Rannis is already on a formally contracted 5-year basis, running until end of 2031. As the current contract period approaches its end, IASC should plan early to renew it on equivalent or stronger terms, and explore whether a defined Secretariat support contribution from member states could further broaden the financial base and reduce single-country concentration risk.
- Prioritise digitisation of paper records and institutional documents as an urgent operational resilience measure.
- Explore external funding sources for particular projects or activities, like the successful Fellowship model.

REC 8.2 Reduce Volunteer Burden and Improve Operational Standards

- Remove or substantially reduce the remote ASSW attendance fee for those serving IASC voluntarily (WG members, AG members, Fellows). WG members are formally expected to receive funding for in-person ASSW attendance from the adhering bodies that nominate them; adhering bodies should be reminded of this responsibility, with IASC maintaining a small support fund for cases where that funding is not available.
- ASSW dates are published 3–4 years in advance, providing good lead time for travel planning. For online and virtual WG and AG meetings, ensure notices are issued well in advance to enable members from less well-resourced institutions to arrange participation. IASC should also consider establishing a regular schedule of online meetings for each WG to improve predictability and enable better forward planning by all members.

- Review and simplify the WG proposal administration process to reduce volunteer time required for small-value funding decisions.
- Develop clear WG operational standards: minimum meeting frequency, mandatory reporting format, consistent application of existing conflict of interest guidelines, and output tracking requirements.

Section 9: Conclusions

This report is presented as IASC prepares for its 2026 Council meeting at ASSW 2026 in Aarhus, Denmark (25 March – 1 April 2026). The recommendations are intended to inform that meeting and the implementation work that follows across the next ASSW cycle up to Incheon, Republic of Korea (2030), as part of POLAR 2030, the joint IASC-SCAR Conference. This forward schedule provides a natural planning horizon against which implementation progress can be tracked.

This review finds IASC to be a genuinely important and well-functioning organisation that has performed with distinction under exceptional pressure, and that has significant opportunities to grow its impact further. The headline conclusion is this: IASC knows what it is, excels at supporting the next generation of scientists, and is effective as a facilitator and catalyst. The organisation has demonstrated remarkable resilience through a decade of geopolitical disruption. The structural improvements identified in this review - in Council-WG communication, cross-WG coordination, Indigenous governance, and operational resilience - are well within IASC's reach and would position it strongly for the IPY5 decade ahead.

The decade under review has tested IASC severely. A global pandemic forced an immediate transition to virtual operations. The Russian invasion of Ukraine severed a large number of the pan-Arctic scientific community's most productive bilateral relationships overnight. Shifts in US science policy through 2025-26 have introduced new funding uncertainties. Through all of this, IASC maintained its core function, kept its membership intact, and delivered ASSW, Fellowship cohorts, and the ICARP IV process. That it did so on a Secretariat of remarkable quality but modest size is a testament to the people involved.

The arc of the review period is, ultimately, a story of an organisation that has grown in ambition - taking on Indigenous co-leadership, launching the most comprehensive ICARP process in its history, achieving record ASSW attendance, and positioning itself at the centre of IPY5 - without fully developing the structural capacity to match those ambitions. The recommendations in this report are designed to close that gap.

The IASC community is clear about what they value: the convening power that makes programs like MOSAiC possible, the Fellowship programme that builds the next generation of Arctic researchers, the ASSW that keeps the community connected through geopolitical storms, and the membership model that gives every nation a voice regardless of size. These are real achievements. They are worth protecting and worth building on. The next decade, with IPY5 at its centre, offers IASC the opportunity to be not merely the organisation that held Arctic science together through a difficult decade, but the organisation that shapes what Arctic research becomes in the decade that follows.

Case Studies

This appendix presents two focused case studies examining specific IASC programmes and instruments in depth. Case studies draw on dedicated interview data, documentary review, and programme records, and are presented separately from the main review chapters because they address individual mechanisms rather than the thematic interfaces examined in Sections 3–8. They are not counted in the main report page total.

Case Study D.1: The IASC Fellowship Programme

Programme at a Glance

Established: 2014 | Fellows supported to date: ~88 | Duration: 3 years (1+2 model) | Indigenous Fellowship: introduced 2020 (permanent, ≥1 position/year)

IASC commits at least 30% of scientific funds to early career engagement; Working Groups dedicate at least one third of their budgets to ECR activities.

D.1.1 Overview

Established in 2014, the IASC Fellowship Programme is the organisation's principal capacity-building initiative, integrating early career researchers (ECRs) into international Arctic science coordination. Since the pilot at ASSW 2014, the programme has expanded steadily; by 2025 it had supported approximately 88 Fellows embedded in IASC's five Working Groups and Standing Committees.

In 2020, a permanent Indigenous Fellowship was introduced, with at least one position offered annually. Indigenous Fellows join a Working Group and the Standing Committee on Indigenous Involvement (SCII), advancing a co-production model in which Indigenous Knowledge is recognised as coequal with Western science.

The programme follows a "1+2" model. In the mandatory first year, Fellows receive travel support to attend two ASSWs and relevant Working Group meetings. Years two and three provide continued voluntary engagement and structured knowledge transfer, with alumni connected through the IASC FOX network. Fellows contribute to meeting documentation, present their research, and participate actively in Working Group activities, helping shape research priorities and cross-cutting initiatives. The programme is implemented in partnership with the principal early career Arctic science network, which coordinates the annual call, conducts blind review, and ensures early career voices shape Fellow selection.

D.1.2 Key Findings

Fellowship Impact on Career Progression

The fellowship is widely recognised across the review dataset as a significant driver of career progression. It is described not merely as a career booster for individuals, but as a structural intervention that has successfully diversified the Arctic research community and created a new generation of leaders who are "literate" in international science cooperation. Former Fellows describe the programme as a "seed" enabling crucial networking with senior scientists and strengthening their "polar profile" - an important factor in securing full-time positions at leading polar research institutes.

Fellows are consistent that the primary value of the programme lies not in direct publication output, but in networking and learning science governance - skills that are rarely taught in doctoral programmes and that typically take years to acquire through other means. The programme provides a unique "behind the scenes" look at international science diplomacy: Fellows observe and participate in how priorities are set, how partnerships are negotiated, and how decisions are made in large multinational scientific forums. This exposure is widely described as transformative and as a foundation for the leadership trajectories that alumni subsequently follow.

From an institutional perspective, the fellowship offers researchers a valuable opportunity to “zoom out” from individual projects and engage with Arctic science at a strategic, cross-disciplinary level. This broadening effect - thinking beyond one’s disciplinary specialisation - is consistently cited as a major professional impact. The programme also functions as an essential access mechanism, enabling ECRs to attend key international venues such as ASSW that might otherwise be financially inaccessible.

Influence on Scientific Output

The impact on individual publication output is variable and context-dependent. High-level organisational commitments and long-term planning processes - such as ICARP IV research priority theme co-leadership - can temporarily slow a Fellow’s individual publications. However, the fellowship provides access to international datasets, observing platforms, and collaborative networks that are typically difficult for ECRs to obtain independently, and that can contribute to high-impact articles over the medium term.

Beyond journal publications, Fellows contribute to broader scientific outputs: in 2023, Fellows guest-edited a special collection in Arctic Science focused on Indigenous methodologies, demonstrating the programme’s capacity to generate community-shaping scholarly work.

Pathways to Leadership

The fellowship serves as a demonstrable pathway into leadership roles within IASC and the broader polar science community. Alumni have co-chaired ICARP IV Research Priority Teams, served on IASC Standing Committees, and participated in the IASC Medal Committee. Organising and sustaining fellow networks such as IASC FOX builds the institutional confidence and governance experience needed to transition into principal investigator and leadership roles.

“The fellowship programme really works as a mechanism for long-term engagement. Researchers frequently continue to follow that path throughout their careers, ensuring young people are carried up and through the system to senior leadership.”

- Interview respondent

Comparative Context

The IASC Fellowship differs from other major polar fellowships in its structural focus. While SCAR, COMNAP, and IAATO primarily fund short-term research or operational visits (typically up to USD 15,000), IASC emphasises long-term institutional engagement. Fellows participate for up to three years (one funded year plus two optional years) within Working Groups and committees, contributing to science coordination, governance, and priority-setting rather than conducting a single funded project. This model uniquely strengthens continuity, leadership development, and coordination capacity within the Arctic science system.

D.1.3 Recommendations

The following recommendations arise from dedicated interview feedback and programme review and are presented in addition to the Fellowship recommendations in the main report (REC 7.1, REC 7.2, and Appendix A.6):

- Rewrite the existing WG member welcome document to create a Fellow-specific version, covering IASC’s organisational structure, the purpose of each working group and committee, what is expected of Fellows, and practical guidance on participating in ASSW. This targeted one-pager would address the disorientation reported by new entrants and is a low-cost, high-impact improvement.
- Strengthen participation in the coordinator-led cross-WG cohort meetings that already take place online throughout the year and in-person at ASSW. Make attendance an expected part of Fellowship engagement, and ensure the dedicated ASSW (or other planned) sessions are structured and promoted to make it compelling for all Fellows across Working Groups.
- Issue clear guidance to Working Group leaders on how Fellows should be included in WG activities - not merely invited to meetings, but assigned substantive tasks, included in proposal development discussions, and given a genuine voice in priority-setting.

- Replace the model of recruiting single Indigenous individuals with cohort-based Indigenous recruitment: three to four Indigenous Fellows per cycle, selected with attention to peer compatibility and shared experience, to provide a critical mass of support and enable collective rather than tokenistic Indigenous voice.
- Build on the PA2F model: pursue additional philanthropic and institutional partnerships to fund dedicated Fellowship positions, increasing the programme's scale and diversity beyond what membership fees alone can sustain.
- Prioritise quality over expansion: resist pressure to increase the total number of Fellowship positions beyond what the programme can deliver with high quality and prestige. The fellowship's value rests partly on its competitive standing.
- Set aside specific time early in each fellowship term for Fellows to develop cross-cutting research proposals, as these opportunities are typically missed during the initial orientation phase when Fellows are still learning the system.
- Build a structured "ladder of engagement" beyond the fellowship term: a post-fellowship pathway that prevents the cliff-edge loss of talent and keeps alumni connected as mentors, advisors, and potential future leaders.
- Resource the IASC-FOX alumni network as a strategic leadership pipeline rather than a marginal volunteer initiative. FOX alumni are some of the most IASC-literate scientists in the Arctic community; their continued engagement is an asset that IASC currently under-utilises.
- Establish permanent Indigenous appointments and early career co-leadership roles within IASC's Council and Executive Committee, rather than limiting Indigenous presence to Fellowship and SCII structures.
- Actively work to demystify IASC and ICARP processes for researchers who find them distant from their day-to-day scientific work. Accessible plain-language explainers and short video content could significantly expand the reach of the programme.
- Develop rich Fellow profiles on the IASC website - including a photograph, short biography, and fellowship goals - and launch a Fellow interview series as a regular feature showcasing Fellows' research and programme experiences. These are relatively low-cost initiatives with significant potential to raise the programme's profile and attract diverse future applicants.
- Provide financial support for alumni network coordinators (IASC FOX and future equivalents) to maintain long-term institutional continuity, prevent coordinator burnout, and ensure sustained visibility of the alumni community.

Case Study D.2: The IASC Medal

Awards at a Glance

Recipients analysed: 16 Medal recipients + 5 Awards for Service = 21 total, 2010–2025

Gender: 19% women | Geographic: 57% from US-affiliated institutions | Asian: 1 recipient (Dr Ohmura) | Indigenous: 1 recipient (Prof. Dorrough)

D.2.1 Overview and Diagnosis

This case study was initiated in direct response to a request from IASC ExCom, who identified the IASC Medal as an initiative that needed a process update due to low engagement and visibility within the community. The case study provides actionable recommendations for revitalisation.

A quantitative analysis of IASC Medal recipients since the Medal was established in 2010 reveals systemic issues that place the award in direct tension with IASC's strategic goals for equity, diversity, and inclusion.

D.2.2 Key Findings

Significant EDI Deficits

The awards reveal a significant and persistent diversity deficit. Only 19% of all 21 individual recipients (across both Medals and Awards for Service) have been women. 57% have been affiliated with institutions in the United States. Asian-origin scientists are represented by a single recipient: Dr Atsumu Ohmura, a Japanese-born glaciologist awarded the 2021 Medal, who spent most of his career at ETH Zurich. The 2022 Medal was awarded to Professor Dalee Sambo Dorrough, an Inuit legal scholar and Chair of the Inuit Circumpolar Council - the first Indigenous recipient. These two exceptions, while welcome, do not significantly alter the overall pattern of geographic and demographic concentration.

Narrow Definition of Excellence

The main IASC Medal has functioned almost exclusively as a retrospective “lifetime achievement award,” rewarding “exceptional and sustained contributions” from senior scientists. This orientation makes the award structurally irrelevant to mid-career and early career researchers, and fails to recognise excellence in mentorship, collaborative leadership, or Indigenous knowledge partnership - all of which are central to IASC's stated values.

A critical finding is the paradox between the award's official evaluation criteria - which explicitly state that accomplishments should be judged “relative to career stage” - and the actual outcomes over 15 years, which reflect no such intent in practice.

Systemic Barriers in the Nomination Process

The nomination process is a key failure point. The official IASC Medal Nomination Form requires a nominator to compile a single PDF containing multiple attachments and supporting materials. This high-burden process creates significant procedural friction, discourages participation from time-pressed community members, and leads systematically to a small and non-diverse candidate pool each year.

This has created a cycle that is difficult to break: a high-effort process leads to a small nomination pool, which limits the diversity of outcomes, which further reduces the incentive to nominate. The awards are becoming progressively less visible and less valued precisely because the process makes them inaccessible.

KPI Assessment

When assessed against the review's KPI framework, the Medal is significantly underperforming. It raises significant concern for stakeholder engagement (R2), achieving strategic objectives (E3, E4), and fostering an inclusive environment (S3). In its current form, the Medal actively undermines both IASC's successful ECR programmes and its stated commitment to diversity.

D.2.3 Recommendations

The following recommendations are designed to break the cycle of decline and transform IASC's awards into a powerful strategic asset:

- Sharpen the IASC Medal criteria to focus on “transformative impact” on scientific understanding, “innovative leadership,” and “exceptional mentorship” - creating a clearer basis for recognising mid-career scientists and bringing outcomes into alignment with the official intent to evaluate accomplishments relative to career stage. Review and change the evaluation criteria document.
- Introduce thematic categories for the IASC Medal to broaden the definition of excellence and improve EDI outcomes. Options include multiple annual categories (e.g., Excellence in Discovery Science; Excellence in Leadership and Mentorship; Excellence in Indigenous Partnership and Co-production) or a biennial thematic rotation. This structural change is essential for improving representation across gender, geography, career stage, and research approach.
- Build on the existing travel grant for Medal recipients by extending support to include two to three ECR mentees of the recipient attending ASSW, directly linking the award to IASC's early career strategy and making each medal a visible, community-facing event.
- Implement a two-stage nomination process. Replace the current high-effort, single-PDF process with: (a) an open call using a simple, low-barrier online form requiring only a brief justification; followed by (b) a supported application stage in which the Awards Committee and Secretariat compile the full package for a shortlist of finalists, shifting the administrative burden from the community to the organisation.
- Establish a proactive and diverse nominations canvassing committee with an explicit mandate to identify and solicit nominations from underrepresented regions, disciplines, genders, and career stages. The diversity of the nomination pool should be a deliberate strategic objective, not left to chance.
- Maintain and further elevate the IASC Medal Lecture as a premier, high-visibility plenary event at ASSW and streamed online; the recommendation is to ensure this high-profile positioning is preserved in all future Medal cycles and that the lecture is actively promoted and communicated to maximise its visibility.
- Develop a professional communications strategy for each Medal cycle, including a high-quality video profile of the recipient and a press release distributed to both scientific and mainstream media. A Medal that is not communicated is not recognised. Making the award “newsworthy” is as important as improving the nomination process.

Appendix A: Complete Recommendations Register

This appendix lists all recommendations arising from the review in table format, organised by thematic area. Each recommendation carries two additional assessments:

- ★ Evidence weight: how many independent data sources - interviews, survey responses, and documentary review - raised the same or a substantially similar recommendation. ★ = raised by a single source only; ★★ = raised by 2–5 independent sources; ★★★ = raised by more than 5 sources across multiple data types, consistently and emphatically.
- Continuity: NEW = not raised in the 2016 review; EVOLVING = raised in 2016 but changed in character, urgency, or context; SAME - 2016 = essentially the same as in 2016 and not yet substantially addressed.

Cost indicator: ○ Low cost = primarily a governance or process decision with minimal financial outlay.

● Resource required = new staffing capacity, external funding, or significant reallocation of existing resources.

Key to columns

★ = 1 source ★★ = 2–5 sources ★★★ = more than 5 sources across multiple data types

NEW = not in 2016 review EVOLVING = in 2016, changed in nature SAME - 2016 = unchanged, not yet addressed

○ Low cost ● Resource required

A.1 Governance and Council				
	Recommendation	Evidence	Continuity	Cost
1	Introduce formal annual strategic direction communications from Council to Working Groups, specifying priorities for the year and how WGs can contribute.	★★★	EVOLVING	○
2	Communicate clearly to Council delegates - through the onboarding pack and annual Council communications - that active dissemination of IASC activities and decisions to their national research communities is a core expectation of the delegate role.	★★★	SAME - 2016	●
3	Invite Council to consider introducing delegate term guidance and to embed this in a future Handbook update.	★★	SAME - 2016	○
4	Invite Council to consider whether the current consensus-based decision-making model remains fit for purpose, and to explore options for graduated decision thresholds as part of a future Handbook or Founding Articles review.	★★★	NEW	○
5	Bring a proposal to Council to consider aligning the IASC fiscal year with the calendar year, with an assessment of implications for Secretariat administration and WG budget cycles.	★★	NEW	○
6	Establish a financial oversight sub-committee with a year-round mandate for budget monitoring, strategic input, and audit oversight.	★★	NEW	○
7	Propose to Council a regular membership fee review mechanism on a three to five year cycle, indexed to	★★	NEW	○

	standard inflation indicators to maintain the real value of contributions.			
8	Review the current two-tier contribution structure (€13,000 / €16,000) and consider introducing additional tiers to reduce membership barriers for non-traditional Arctic nations.	★★	NEW	○
9	Formalise both the onboarding pack and webinar as standing annual practices to ensure all new delegates are oriented on governance and priorities before their first Council meeting.	★★	EVOLVING	○
10	Develop and maintain a Council engagement register tracking attendance, speaking participation, and follow-through on decisions.	★	NEW	○

A.2 Working Groups and Interdisciplinarity

	Recommendation	Evidence	Continuity	Cost
11	Working Groups have already been reforming ASSW meeting formats to reduce administrative content and increase thematic dialogue. Continue and embed this direction: orient the annual cross-cutting meeting to include substantive cross-WG scientific exchange rather than proposal presentations.	★★★	EVOLVING	○
12	Request that Working Group meeting summaries are shared with all WGs within four weeks of each meeting via a Secretariat-managed repository, as a standing expectation communicated by the Executive Committee.	★★★	SAME - 2016	○
13	Introduce a WG member identification system at ASSW (e.g., colour-coded name tags) to facilitate informal cross-WG connection.	★★	NEW	○
14	Establish at least one online inter-WG meeting per year on a shared Arctic priority theme with Secretariat facilitation.	★★★	NEW	○
15	Pilot two to three cross-WG task teams on priority interdisciplinary themes before IPY5, with defined outputs and timelines.	★★★	SAME - 2016	○
16	Review the cross-cutting funding model to ensure that WG contributions to joint projects better reflect submission volumes and cross-cutting engagement levels, with particular attention to the SHWG's disproportionate cross-cutting workload relative to its weight in joint funding decisions.	★★	NEW	○
17	Allow ECR-engagement proposal components to request a number of ECR places rather than negotiating euro amounts from each participating WG.	★★	NEW	○
18	Consider commissioning a light-touch review of WG funding administration processes to assess whether the administrative burden on volunteers is proportionate to the research outcomes delivered.	★★★	NEW	○
19	Develop a set of recommended WG operational standards for implementation, covering meeting frequency, reporting format, conflict of interest guidance,	★★★	EVOLVING	○

	and output tracking, consistent with the minimum meeting provisions in the Handbook.			
20	For in-person, online and virtual WG and AG meetings, ensure notices are issued well in advance to enable members from less well-resourced institutions to arrange participation. IASC should also consider establishing a regular schedule of online meetings for each WG and cross-WG meetings to improve predictability and enable better forward planning by all members.	★★	NEW	○
21	Develop a light-touch set of performance indicators connecting WG activities to IASC's strategic objectives, in consultation with WG Chairs.	★★★	NEW	○
22	Establish systematic feedback loops between IASC strategy and priorities with annual WG programming, so that WG plans are developed with explicit reference to IASC's current strategic priorities.	★★★	NEW	○
23	Introduce periodic mid-term structural reviews of WG mandates between ICARP cycles, to assess whether the WG architecture remains well configured for the current and emerging Arctic science landscape.	★★	NEW	○
24	Develop structured pathways for cross-WG programming on integrated Earth system science themes, transdisciplinary questions, and topics requiring co-production with Arctic communities.	★★★	NEW	○
25	Embed Indigenous knowledge co-production principles into WG governance and funding criteria as a structural requirement.	★★★	EVOLVING	●
26	Develop outreach and engagement strategies for Asian Arctic research communities, with the goal of strengthening their participation in WG activities, ICARP processes, and ASSW.	★★	NEW	○

A.3 ICARP and Science-to-Policy Translation

	Recommendation	Evidence	Continuity	Cost
27	Build on the output template developed for ICARP IV to establish a more consistent and binding standardised format for Research Priority Theme documents in further ICARPs, developed with RPT chairs from the outset and applied uniformly across all groups.	★★★	EVOLVING	○
28	Build structured WG contribution windows with clear deadlines and Secretariat-managed feedback loops into the ICARP process.	★★★	EVOLVING	○
29	Seek to embed Indigenous co-leadership in the ICARP V architecture from the design stage, in consultation with SCII and relevant Indigenous organisations.	★★★	EVOLVING	○
30	Develop a "Strategic Impact Tracker": a systematic, data-driven mechanism to record where ICARP priorities appear in national and international funding calls (e.g. Horizon Europe) and research agendas, addressing the "Impact Gap" and providing Council delegates with annual ROI data for national advocacy.	★★★	NEW	○

31	Consider a targeted communications effort with ICARP partner organisations to increase visibility in communities where awareness and uptake have been lower, including European, Asian, and southern hemisphere research communities.	★★	NEW	●
32	Develop a post-ICARP science-to-policy strategy: structured engagement with national funding agencies, workshops, and targeted briefing papers; and develop a “Strategic Impact Tracker” to systematically record where ICARP and IASC priorities appear in national and international funding calls (e.g. Horizon Europe), providing annual ROI data to Council delegates for national advocacy.	★★★	EVOLVING	●
33	Finalise and adopt the updated IASC Statement on Data (being prepared by the Arctic Data Committee for the 2026 Council meeting), and ensure IASC is actively represented in the IPY Data Task Group already established for IPY5 data harmonisation work.	★★	EVOLVING	○
34	Develop a post-ICARP science-to-action strategy: extend structured engagement beyond funding agencies to include action-oriented bodies, government decision-makers, and community practitioners; link to the Strategic Impact Tracker to demonstrate how IASC priorities are shaping policy and funding landscapes.	★★★	NEW	●
35	Integrate partner organisations - including action-oriented bodies, government representatives, and community stakeholders - early in IPY5 planning, to ensure coordinated participation, shared ownership, and a science-to-action orientation from the outset.	★★★	NEW	○

A.4 External Partnerships and Visibility

	Recommendation	Evidence	Continuity	Cost
36	Develop and adopt an IASC ambassador framework that invites Council delegates, WG Chairs, and ExCom members to represent IASC at external events, with Secretariat support and suggested talking points.	★★★	EVOLVING	○
37	Develop a concise IASC key messages document and elevator pitch for ambassadors, updated annually by the Secretariat.	★★	EVOLVING	○
38	Systematically seek IASC representation at non-Arctic disciplinary conferences (AGU, EGU, SCAR, IPA, IASSA) to reach currently unengaged communities.	★★★	SAME - 2016	○
39	Deepen direct collaboration with the Inuit Circumpolar Council (ICC), the Indigenous Peoples' Secretariat (IPS) and other Indigenous peoples organisations toward structured, ongoing engagement that is mutually designed and resourced. Review and renew MOUs as needed particularly for WG relevant organisations; develop a joint work plan for social sciences and humanities integration with WG activities.	★★	SAME - 2016	○
40	Strengthen the IASC relationship with IPCC and WMO given the centrality of Arctic change to global climate assessment.	★★	SAME - 2016	○

41	Consider commissioning a brief analysis of the visibility gap between IASC and comparable polar science organisations, to help identify structural and communications factors that could be addressed.	★★★	NEW	○
42	Explore the feasibility of a joint Indigenous scientific advisory body, co-owned by Indigenous peoples rather than member governments.	★	NEW	○
43	Invite ACAP to assign a liaison to IASC WG activities and brief ACAP on IASC publications and the Fellowship programme.	★	NEW	○
44	Improve IASC website navigability and ensure all publication links, WG descriptions, and programme information are current and easily found.	★★★	SAME - 2016	●
45	Remove or substantially reduce the remote ASSW attendance fee for those serving IASC voluntarily in various IASC bodies or groups, through increased budgetary allocations or requesting adhering bodies.	★★★	NEW	○
46	Build stronger relationships with action-oriented Arctic Council bodies and organisations focused on mitigation, applied environmental solutions, and knowledge-to-practice translation, complementing existing strong ties with AMAP and CAFF.	★★	NEW	○
47	Explore shared administrative services - such as IT infrastructure, communications, and web management - with other Arctic institutions as a means of reducing collective overhead and improving operational efficiency.	★	NEW	○
48	Take a proactive convening role in mapping and addressing duplication of effort across the Arctic institutional landscape, using IASC's neutral standing to facilitate clearer role delineation among organisations working on complementary agendas.	★★	NEW	○

A.5 Indigenous Engagement and Co-production

	Recommendation	Evidence	Continuity	Cost
49	Bring to Council a proposal to establish a pathway for meaningful Indigenous engagement with the IASC Executive Committee and Council.	★★★	EVOLVING	○
50	Develop a formal nomination process for Indigenous members of Working Groups, in consultation with SCII and relevant Indigenous organisations.	★★★	EVOLVING	○
51	Create a dedicated, ring-fenced budget line for Indigenous participation in IASC activities, independent of WG residuals or ad-hoc fundraising.	★★★	EVOLVING	●
52	Communicate to national adhering bodies an aspiration and encouragement to nominate and financially support Indigenous representatives in IASC processes, and invite Council members to champion this within their national communities.	★★★	SAME - 2016	○
53	Explore the feasibility of a dedicated Indigenous scholar position within the Secretariat, potentially funded through external partnership.	★★	NEW	●

54	Develop a scientist communication training programme focused on respectful and adaptive engagement with Indigenous knowledge holders.	★★	NEW	●
55	Study and adapt the ArcticNet and ELOKA models for community data sovereignty, Indigenous co-PI requirements, and ring-fenced participation funding.	★★	NEW	○
56	Explore commissioning documentation of examples where Indigenous knowledge integration has contributed to improved Arctic research outcomes, for use in internal communications and external advocacy.	★	NEW	●
57	Consider including Indigenous youth organisations in outreach and engagement activities, alongside established representative bodies.	★★	NEW	○
58	Establish a Permanent Participation Fund to provide reliable, consistent financial support for Indigenous experts and organisations engaging in IASC activities - covering travel, compensation for time and expertise, and community coordination costs.	★★★	NEW	●
59	Adopt ethical research guidelines requiring early co-design with Indigenous communities, so that research questions, methods, and priorities are co-developed from the outset rather than introduced after project definitions are set.	★★★	NEW	●
60	Work with Indigenous leaders and other Arctic organisations to explore shared Indigenous advisory structures that serve multiple institutions simultaneously, reducing the burden placed on over-tasked Indigenous experts.	★★	NEW	○
61	Undertake proactive outreach to Arctic community organisations beyond existing academic networks to ensure broader and more diverse representation of Indigenous perspectives in IASC's work.	★★★	NEW	○

A.6 Early Career Researchers and Fellowship

	Recommendation	Evidence	Continuity	Cost
62	Further develop from pre-existing and distribute a structured Fellow onboarding package: role description, WG guide, contact list of all current Fellows, and WG Chair introduction protocol.	★★★	EVOLVING	○
63	Increase Indigenous Fellow positions, with targeted outreach to build the Indigenous applicant pipeline.	★★★	EVOLVING	●
64	Build on the existing dedicated Fellowship budget line (which covers ASSW travel for the first two years) by exploring options to extend guaranteed funding support throughout the full fellowship term; pursue expanded external funding on the existing philanthropic partnership model.	★★★	EVOLVING	●
65	Create a formal post-fellowship engagement pathway: IASC alumni category with access to WG meetings, proposal review roles, and mentoring responsibilities.	★★★	EVOLVING	○
66	Resource the IASC-FOX alumni network as a strategic leadership pipeline: provide a support allocation, a travel	★★	NEW	○

	grant for attendance at ASSW, and a defined role for FOX alumni in mentoring current Fellows.			
67	Adopt Council-level guidance on WG engagement with Fellows, setting out the expectation that Fellows be assigned substantive tasks and afforded a genuine voice in WG activities, rather than passive attendance.	★★★	SAME - 2016	○
68	Develop structured roles for IASC Fellows in IPY5 planning and coordination activities, beginning in the current planning cycle.	★★	NEW	○
69	Fund a community liaison role to conduct targeted outreach to Indigenous communities about the Indigenous Fellowship position.	★★	NEW	●
70	Expand Fellowship visibility at non-Arctic disciplinary conferences (AGU, EGU) to broaden the international applicant pool.	★★	SAME - 2016	○
71	Strengthen participation in coordinator-led cross-WG cohort meetings already in place; make attendance an expected part of Fellowship engagement; promote the dedicated ASSW session actively so that Fellows across Working Groups are connected from the outset of each term.	★★★	NEW	○
72	Move from recruiting single Indigenous individuals to cohort-based Indigenous recruitment - three to four Indigenous Fellows per cycle - to provide critical mass, peer support, and genuinely collective Indigenous voice.	★★★	NEW	●
73	Build a formal “ladder of engagement”: a structured post-fellowship pathway that prevents cliff-edge loss of talent and supports ECRs into mid-career leadership roles within the IASC community.	★★★	NEW	○
74	Resource IASC-FOX as a strategic leadership pipeline with Secretariat support, treating it as a pool of IASC-literate scientists available for mentoring, advisory, and future leadership roles.	★★★	NEW	○
75	Relocate the Fellowship from the “Capacity Building” tab to a more prominent position in IASC’s website navigation; give the IASC Medal its own distinct section; develop rich Fellow profiles with photos and biographies; and launch a Fellow interview series as a regular website feature.	★★	NEW	○
76	Explore in-kind support from member states - including staff secondments and communications capacity - as a complement to financial membership contributions, particularly to support Fellowship outreach and digital engagement ahead of IPY5.	★★	NEW	○

A.7 Secretariat and Operational Resilience

	Recommendation	Evidence	Continuity	Cost
77	Review the single-country Secretariat funding model; consider whether a defined Secretariat support contribution from all members would provide greater financial resilience in the future.	★★★	NEW	●

78	Develop an emergency handover document and protocol for all key Secretariat roles, reviewed and updated annually.	★★★	EVOLVING	○
79	Initiate succession planning for the Executive Secretary role as a proactive institutional priority, independent of any imminent departure.	★★★	EVOLVING	○
80	Explore options for strengthening Secretariat second-person capacity, including through shared services or secondments from partner organisations.	★★★	SAME - 2016	●
81	Conduct an “FTE Mapping” exercise: commission a formal, data-driven audit of Full-Time Equivalent workload versus current Secretariat staff capacity across all functions (scientific programme support, partnership management, communications, IPY5 preparation).	★★★	NEW	●
82	Explore external funding sources for other IASC projects or activities, like the successful Fellowship model.	★★★	NEW	○
83	Commission a legal analysis of IASC’s non-legal entity status in Iceland and assess options for formal incorporation.	★★	NEW	○
84	Prioritise digitisation of all paper records and institutional documents as an urgent operational resilience measure.	★★	EVOLVING	●
85	Review and simplify the WG proposal administration process to reduce volunteer time required for small-value funding decisions.	★★★	NEW	○
86	Explore, as part of a future Strategy discussion or review, whether observer or associate membership categories would be beneficial to IASC.	★★	EVOLVING	○
87	Launch an active membership expansion programme targeting nations where Arctic research is conducted but IASC membership is not formalised.	★★	EVOLVING	○
88	Consider beginning Secretariat capacity planning for IPY5 well in advance of the event, to ensure IASC is structurally prepared for increased coordination demands during and around the Fifth International Polar Year.	★★★	NEW	●

Total recommendations: 88. Evidence weight summary: ★★★ (more than 5 sources) = 33 recommendations; ★★ (2–5 sources) = 32; ★ (single source) = 4.

Continuity summary: NEW concerns first identified in this review = 26; EVOLVING from 2016 = 24; SAME as 2016 and not yet substantially addressed = 19. The concentration of SAME - 2016 findings in cross-WG coordination, governance transparency, Indigenous engagement, and Secretariat capacity underscores where implementation gaps are most persistent across review cycles.

The Review Committee recommends that the IASC give priority attention for the 19 SAME - 2016 recommendations, as these represent concerns identified in two full review cycles without substantive resolution.

Appendix B: Review Framework and Final KPI Scores

The following table presents the full KPI framework used in this review, with the evidence base and rationale for each assessment.

KPI	Evidence summary and rationale
R1 - Role Clarity and Relevance	Universal recognition across all stakeholder groups. The “lighthouse” framing was confirmed by multiple partner organisations. 80% of survey respondents agreed that strategic priorities are aligned with community needs. The facilitation and coordination model is well understood and deeply valued.
R2 - Strategic Direction	ICARP IV is the most inclusive and community-driven priority-setting process IASC has undertaken. Survey data show 80% agreement that strategic priorities are well aligned with community needs. Opportunities to strengthen post-ICARP tracking and science-to-policy translation are identified.
C1 - Governance and Council Engagement	58% of survey respondents agreed that governance provides effective leadership and oversight; 34% were neutral, suggesting the Council’s work is not sufficiently visible to many members. The review identifies opportunities to strengthen the two-way communication between Council and Working Groups, and to advance Indigenous representation in governance.
C3 - External Partnerships	77% of survey respondents agreed that partnerships with international organisations add significant value. Core relationships with the major Antarctic science body, the early career network, and Arctic Council working groups are productive. Several partnerships would benefit from renewal, deeper engagement, or more systematic outreach.
E1 - Facilitation Effectiveness	MOSAIC is cited as a landmark achievement by a large share of respondents; ASSW recorded its highest-ever attendance during the review period. 68% of survey respondents agreed that IASC facilitates international research collaboration effectively. IASC’s convening power is its most celebrated characteristic.
E4 - Early Career Engagement	The Fellowship programme was rated the strongest aspect of IASC’s work, with 90% of survey respondents agreeing that IASC provides valuable opportunities for early career researchers. The programme is widely described as career-defining. Identified improvements - onboarding, budget line, post-fellowship pathway - would strengthen an already excellent programme.
EF1 - Operational Efficiency/Financing	76% of survey respondents rated Secretariat support as adequate or better. The Secretariat is consistently praised across all stakeholder groups. The review identifies opportunities to strengthen institutional resilience, including succession planning and extending the scope of Fellowship funding beyond ASSW attendance, to sustain this high performance into the IPY5 period.
S2 - Equity and Inclusion	IASC has made genuine and recognised progress on Indigenous engagement: 58% of survey respondents rated Indigenous knowledge integration positively, and ICARP IV’s Indigenous co-leadership was cited by several partner organisations as a model they wished to emulate. The review identifies specific structural steps to consolidate and extend this progress.
S3 - Implementation and Impact	MOSAIC demonstrates the catalytic impact IASC can have when it operates at its best. 80% of survey respondents agreed that strategic priorities are well aligned with community needs. Developing systematic tracking of how ICARP priorities influence research programmes and funding calls is the most significant opportunity identified in this dimension.