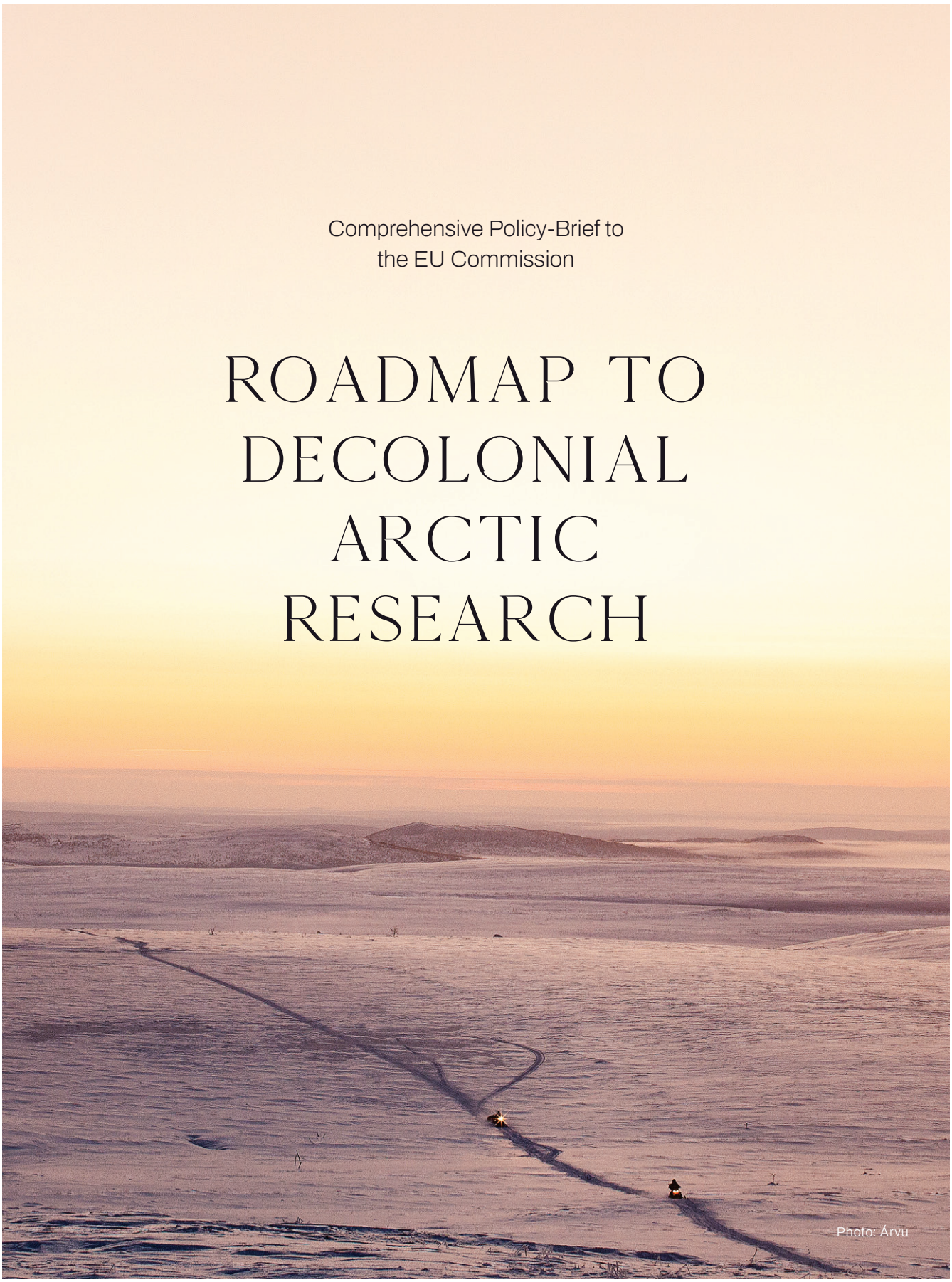
Comprehensive Policy-Brief to
the EU Commission

ROADMAP TO DECOLONIAL ARCTIC RESEARCH



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DISCLAIMER

The views and opinions expressed in this Roadmap are those of the authors, and do not necessarily reflect those of the authors' organisations and funding authorities, and in particular the Helmholtz Association of German Research Centres and its subsidiary centres and institutes.

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CONTENT TABLE

INTRODUCTION

"Participation has to happen on an equal footing. We are too used to being invited to be the Indigenous alibi for different projects. We want to get rid of that and be part of actually defining the project, where our knowledge and priorities would be on an equal footing. It needs to have full respect for Saami Indigenous knowledge."

Saami Council President Aslak Holmberg, Statement on co-creation in Arctic research (Arctic Passion, 2022, 2min58sec)

Reindeers in the middle of the night - reinbeitedistrikt 22 Fiettar / May 2020 / Suolojávri

Photo: Árvu

INTRODUCING OURSELVES AS A GROUP

The CO-CREATE network—a group of Indigenous and non-Indigenous, academic and non-academic researchers, activists, and community members from the Arctic and European research institutions—work together to improve research relationships across ways of knowing in Arctic research, which often still operates within a framework embedded in colonial structures and methodologies. The network emerged after a workshop on Ethics and Methods in transformative Arctic Research (WEMA I), organised by the Institute of Advanced Sustainability Studies (IASS)[1] and the Helmholtz-Centre for Environmental Research (UFZ) in the fall of 2020 (for more information, see www.arctic-ethics.org). The network has since grown organically and now covers all Arctic regions.[2] Over the past two and a half years, the CO-CREATE network has published an article on research funding in Arctic research (Doering et al., 2022), organised several workshops and conference sessions engaging with different aspects of co-creation at international Arctic conferences and other events,[3] and co-organised a second international Ethics and Methods Workshop (WEMA II). During WEMA II, a video project was co-conceptualised with partners from Ikaarvik, an independent, Northern Indigenous-led non-profit (www.ikaarvik.org), bringing Indigenous voices from Arctic communities into the workshop to include a wider diversity of experiences with and views on Arctic research. Currently, the CO-CREATE network is engaged in the DÁVGI-project—Dávgi meaning "bow" in the Northern Sámi language—funded by the German Ministry for Environment, Nature Conservation, Nuclear Safety and Consumer Protection. The DÁVGI-project aims to build networks for knowledge exchange and bridge academic science with Indigenous knowledge through co-creative research to strengthen bio-cultural diversity and Indigenous peoples' rights in the Arctic.

[1] Now the Research Institute for Sustainability – Helmholtz Centre Potsdam (RIFS)

[2] The following individuals have been involved in projects and events (as authors or organisers) of the CO-CREATE network: Francesca Brunner Alfani (University of Groningen), Anna Burdenski (University of Vienna), Anne Chahine (RIFS), Nina Döring (RIFS), Stephan Dudeck (RIFS), Josef Elster (University of Southern Bohemia), Shelly Elverum (Ikaarvik), Charleen Fisher (UAF), Eva Fjellheim (Saami Council), Jan Erik Henriksen (UiT), Nina Hermansen (UiT), Thora Herrmann (University of Oulu), Aslak Holmberg (Saami Council), Anja Márjá Nystø Keskitalo (Saami Council), Britt Kramvig (UiT), Roza Laptander (University of Hamburg), Justin Milton (Ikaarvik), Evie Morin (RIFS), Elle Merete Omma (Saami Council), Arne Riedel (Ecologic Institute), Gertrude Saxinger (University of Vienna), Annette Scheepstra (University of Groningen), Eric Solomon (Ikaarvik), Jorrit van der Schot (University of Graz), Katherine Wilson (SmartICE)

[3] Co-creating Arctic research together with Indigenous rightsholders (at ASSW21); Improving the relationships between researchers and Indigenous rightsholders – what needs to change in funding? (at PhASS seminar, SPRI Cambridge, 2021); Co-creation of knowledge and co-design in Arctic research projects: Re-thinking calls, seed money and evaluation criteria of funding organisations (at ICASSX, 2021); Decoloniality in European Arctic Research: Challenges, Opportunities and Options for Action (at a Topic Group meeting in Germany in 2022); Improving the relationships between researchers and Indigenous rightsholders in the Arctic – What needs to change in funding? (at Arctic Frontiers 2022); Co-creating Arctic research together with Indigenous rightsholders – experiences from natural sciences (at ASSW22).

AIM AND AUDIENCE

The Roadmap for Decolonial Arctic Research emerged from early dialogues within the CO-CREATE network, driven by the identification of limitations within our respective fields and work. Its purpose is to provide policymakers with a strategic toolkit of principles for promoting change within EU research programming and funding structures to advance decolonial principles in Arctic research.

Its implementation is expected to lead to better informed research that respects agency of Arctic communities and Arctic Indigenous peoples' right to self-determination, contributing to a just and sustainable Arctic future. The main objective is to catalyse a change in how research calls are developed and evaluated and thus in how research in the Arctic is planned, structured, funded and carried out. This objective will be achieved by providing state-of-the-art insights into co-creation and collaborative practices between communities and researchers, both Indigenous and non-Indigenous. The Roadmap provides a comprehensive set of recommendations and best practices for research in the natural sciences, social sciences and humanities in the Arctic, intending to encourage the adoption of more effective and ethical research practices, leading to better outcomes for both researchers and communities.

The Roadmap is intended for a wide audience, including policymakers, natural and social scientists, practitioners and anyone interested in promoting ethical research practices and improving the relationship between researchers and the communities they work with. As such, our suggestions for more effective and ethical research practices are aimed at involved parties throughout the entire research cycle, such that researchers can reflect upon their own research and developers of research calls can incorporate the recommendations as criteria for evaluation of the proposals. It is part of a broader effort to improve ethics in Arctic research, and we see it as a valuable contribution to an ongoing debate (see Textbox 1).

WHAT THIS ROADMAP DOES NOT AIM TO DO

This roadmap offers insights and recommendations for action. However, it cannot provide a one-size-fits-all approach nor offer prescriptive guidelines. The authors acknowledge that dialogue is necessary in every case and that relationship-building must be negotiated to ensure ethical and effective research practices. Furthermore, community ethics and Indigenous knowledge are grounded in diverse epistemologies and ontologies, highlighting the importance of recognising and respecting the unique local specificities of each community and context. This roadmap cannot provide manageable checklists, but it can provide a starting point for research planners and funders to engage in meaningful dialogue and to facilitate and build equitable research relationships. Ultimately, it is the responsibility of individual researchers, funders, and institutions to tailor their approaches to specific Indigenous needs and contexts and engage in ongoing dialogue and negotiation throughout the research and funding process.

We do not aim to introduce new guidelines, for many research guidelines have already been developed, or are being developed, in Indigenous communities. We pay tribute to the Indigenous researchers and activists and other supporting researchers who have long struggled to put research ethics on the agenda in their respective national contexts and at different levels (see Textbox 1). Their contributions have paved the way for our initiative and other similar efforts. We draw on this work and contribute to an ongoing debate based on the expertise of the people who comprise this group and the contributions of a wide range of commentators on the text.

The Roadmap does not make recommendations on how non-compliance with ethical guidelines and protocols should be handled or assessed. Instead, we focus on promoting ethical research values, principles and practices that respect the agency of Arctic communities and the Arctic Indigenous peoples' right to self-determination, thus contributing to a more just and sustainable Arctic future.

PROCESS OF WRITING/FEEDBACK/CONSULTATION

The development of the Roadmap for decolonial Arctic research spanned 15 months and followed an open and participatory process. Guided by the Two-Eyed Seeing approach (detailed in Chapter 2), we have collaborated in a co-creative manner to develop this roadmap. The development process was based on several steps:

- Monthly online meetings
- A thematic content analysis of all past events organised by the CO-CREATE network to identify focal areas of the Roadmap – from March to April 2023
- 1st Dialogue Session with EU Commission representatives responsible for polar research– June 2022
- 2nd Dialogue Session with EU Commission representatives responsible for polar research– September 2022
- An Anonymous Online Survey with input from over 50 participants – from July to September 2022
- 3-days writing retreat hosted by the Indigenous Voices (IVO) research group – Álgoálbmogii jienat at the Alta Campus of the Arctic University of Norway to write a the overall structure, the framework and the outline of the key Chapters of the Roadmap – September 2022
- A review process of the 1st draft of the Roadmap text via a public online consultation from 20 November 2022 to 08 January 2023. The online consultation garnered a total of 20 contributions, including comments, contributions, and text annotations which helped to improve the document
- During the International Conference on Sámi Research Data Governance, which took place from 25–27 January 2023 in Romsa/Tromsø, Norway, we received invaluable feedback and input from attendees regarding the Roadmap
- Communication of the results of the Roadmap through a short video
- Launch of the Roadmap in June 2023

Photo: Nina Doering

2016 / Aasiaat, Kalaallit Nunaat

TERMINOLOGIES AND CONCEPTS

Co-creation of knowledge is a form of collaboration in knowledge generation that involves all participants in the process. It is an approach that aims to empower, and ensures that all participants benefit equally from the knowledge produced. Unlike traditional approaches that aim to integrate Indigenous ways of knowing into Western institutional science, co-creation seeks to design research in a way that uses genuine collaboration between different knowledge systems, approaches, and ways of thinking. By leveraging the strengths of Indigenous and non-Indigenous ways of knowing, the co-creation of knowledge can help to create more holistic and inclusive research outcomes that benefit all involved.

Decolonial | Decolonisation refers to a dynamic process of achieving greater justice and equity by challenging and dismantling colonial forms of domination in international socio-political and economic settings. Decolonisation is not a one-off event but an ongoing, unfinished and utopian project. Colonial structures perpetuate inequalities and injustices, and these must be addressed and dismantled for decolonisation to take place (Spivak and Harasym, 2014; Coulthard, 2014; UN, n.d.).

Decoloniality in science and research requires broader social and institutional transformation. The advancement of decolonial methodologies can provide tools to overcome forms of domination that marginalise Indigenous peoples, deprive them of their rights and agency, and hinder the production of valid and relevant research in the Arctic.

By centring decolonial perspectives, we can challenge how knowledge has historically been produced and disseminated, ultimately leading to a more just and equitable world.

Indigenous rightsholder vs. knowledge holders, or peoples, or communities: Indigenous is not a monolithic term and is also rooted in colonial histories. We underline this fact, and we are aware that we cannot cover the whole diversity of history and experiences in this document. Some people, who would fit the criteria of being called Indigenous, refuse such labelling and prefer to be addressed by the names of their specific nation.

In this document, we use the term rightsholders instead of the term stakeholders; Indigenous peoples do not have “a stake” in research carried out on their land, but rather the rights to be meaningfully included and to exercise knowledge sovereignty on their territories as part of their right to self-determination. This is even more important considering that Indigenous rights are not always officially recognised in national and international law. We recognise Indigenous peoples’ role as bearers of particular environmental and traditional knowledge but we do not reduce them to the role of “knowledge-holders”, as in sources of knowledge to be made available and usable for scientific research and academic knowledge production.

Indigenous peoples have for centuries struggled for the legitimacy of indigenous knowledge, and for this reason are wary of academic attempts to make it fit into existing academic institutions and practices (Smith et al., 2016). There is a risk that the depth of expertise of knowledge keepers, in particular on mediating the material and the spiritual world, practices of healing, and other Indigenous practices that are not often talked about with others, are not recognised, understood or valued by non-Indigenous colleagues or institutions (Smith et al., 2016, p. 132). It is only relatively recently that Indigenous scholars have been able to challenge institutional Western hegemony to reclaim a position in contemporary research spaces (Ryder et al., 2020). This has inspired an international academic discourse on Indigenous knowledge that presents opportunities to imagine theories and methodologies in relation to Indigenous Studies (Smith et al., 2016). Indigenous knowledge is performed and lived through these practices, in addition to being translated and shared with communities through stories, and it is often memorised and re-expressed through arts and crafts (Guttorm et al., 2020).

Indigenous science/knowledge: We acknowledge that Indigenous knowledge is science (Ottawa Traditional Knowledge Principles, 2015). However, in this Roadmap, we use the term “knowledge” to acknowledge the unique ways in which Indigenous people and communities create and pass on ways of knowing, being, and relating to the world. Concepts are world-making tools and are therefore particular to worlds and their knowers (Verran, 2018). Verran (2018) argues that in situations of knowledge encounters, there is nothing that everybody knows. Participants are all heterogeneous knowers that need to be aware, and sensitive, to differences. These are not cultural differences but ontological and epistemic differences that challenge us to rethink translation. There is not one version of the world, and the western worldview—often taken as truth within traditional academic discourse—is not infallible nor totalising. Versions of the world are plethoric, each ontologically different. A politics built upon the pluriversal is key to crafting myriad world-making stories, telling of different possible futures that could bring about the profound social transformations that are important for solidifying recognition of Indigenous ways of knowing (Escobar, 2020). By working together, we can create a more comprehensive and inclusive understanding of science that recognises and values the diverse ways in which knowledge is produced and shared.

Self-determination is the fundamental collective right of Indigenous peoples. Given that Indigenous peoples, by definition, lack state sovereignty, self-determination means not only defining one's own identity but also gaining the power to determine one's own destiny, including how to live with the environment, how to live on the land (land and resource rights) and how to govern oneself, including knowledge and education. It also includes the 'right of refusal'—the ability to reject external impositions and decisions. However, realising these rights requires significant resources and capacity. Recognition of Indigenous peoples' rights cannot remain declarative; it must be accompanied by concrete practices that provide resources, frameworks and capacities. Indigenous peoples must have the means to actively exercise their rights to self-determination and sovereignty.

Two-Eyed Seeing

The concept of Two-Eyed Seeing, as described by Reid et al. (2021), highlights the importance of considering multiple ways of knowing in research in Indigenous contexts. It uses a metaphor that emphasises the value of bringing together different perspectives and treating them equally in the co-creation of knowledge. While this approach is particularly relevant to research with Indigenous communities, it also recognises the broader value of multiple sources of knowledge, including those from Western science and the global academic community.

The notion of Two-Eyed seeing acknowledges the difference and importance of ways of knowing rooted in Indigenous practices and histories (one eye) and those derived from Western scientific methodologies (the other eye). It also recognises that Indigenous communities are not isolated, pre-modern societies, but benefit from a range of knowledge sources that emerge from local contexts, specific relationships with land and environment, and global scientific frameworks.

The concept also emphasises the need for researchers to respect Indigenous ways of knowing, to acquire cultural competence, and to be sensitive to the diversity of knowledge perspectives within Indigenous communities when conducting research on Indigenous peoples' lands or affecting Indigenous interests. These commitments are essential to fostering a collaborative and equitable research process that benefits both Indigenous communities and external researchers. Chapter 2 explores the concept of Two-Eyed Seeing in more detail.

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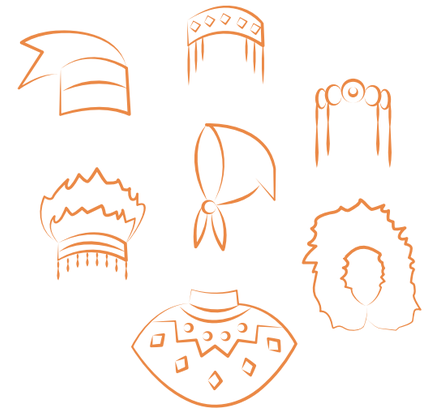
Freshly picked cloudberry / August 2020 / Šuoššjávri



CHAPTER 1

INDIGENOUS PEOPLES' RIGHT TO SELF-DETERMINATION AS STEERING HIGH QUALITY ARCTIC RESEARCH

"Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions."

(Article 31.1 of the UN Declaration on the Rights of Indigenous Peoples)

KEY MESSAGE

We advocate for a rights-based approach to changing the mechanisms, structures and institutions of Arctic research planning and funding. First, by respecting Indigenous peoples' right to self-determination and meaningful participation in all processes affecting their cultures and territories in the Arctic. Secondly, Indigenous peoples have the right to have their knowledge systems recognised and respected, as well as the right to determine the ownership and transmission of that knowledge. These rights are increasingly being recognised through meaningful engagement and inclusion of Indigenous peoples' research interests and strategies in academia and beyond. Decolonial research is needed and ethically demanded as a precondition for meaningful and equitable knowledge production.

VISION STATEMENT

By 2027, Indigenous peoples' research sovereignty has become a cornerstone of EU research activities through involvement in the full cycle of research initiated by Indigenous communities and carried out under Indigenous guidance, involving Indigenous rightsholders and scientists. Indigenous and non-Indigeneous research projects are carried out in Indigenous peoples' territories and communities respecting the right to Free, Prior and Informed Consent (FPIC) and taking into account the interests and research strategies of these communities. These strategies have been developed in order to make research effective and supportive for self-determined policymaking and facilitation of social change in times of climate and global economic change that directly affect local lives and cultural wellbeing. Resources and capacity will be developed for meaningful engagement of Indigenous communities throughout the research cycle—from planning to review and from implementation to co-creating results and evaluating the research. Funding will be provided to Indigenous research partners in order to be able to cover time and personnel costs. Research conducted on Indigenous peoples' lands and waters is relevant and meaningful to their communities, and community members are involved in ways that respect their ownership of the research results.

STATUS QUO: CHALLENGES AND OBSTACLES

The right to self-determination in research, the right to be heard and included, and the right to have opportunities and capacities for decision-making on issues affecting Indigenous peoples' lives and territories have been recognised by international policy and legal agreements, mechanisms and instruments such as the UN Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007), The International Labor Organization's Convention on the rights of Indigenous and Tribal peoples No. 169, the Tkarihwaié:ri Code of Ethical Conduct (SCBD, 2011), and the Nagoya Protocol (SCBD, 2011). One example of inclusive decision-making is the participation of Indigenous Peoples' Organisations (IPOs) as Permanent Participants in the Arctic Council. Yet, Indigenous peoples are denied the mechanisms, capacities, finances, and institutions guaranteeing self-determination and sovereignty in research, which is often impeded by prevailing power structures and lack of resources.

As a result, research on Indigenous peoples' territories is predominantly carried out and guided through and by external researchers, strategies, and institutions. Funding agencies supporting this research follow research strategies formulated by nation states or by international bodies. In this way, relations of exclusion and domination established during the era of colonisation are reproduced. The formulation of new directions for research and allocation of resources, and the expansion of renewable energy projects to Indigenous peoples' territories (e.g. wind energy projects) in conjunction with the "European Green Deal" is repeatedly referred to as "green colonialism" (Fjellheim, 2022; Normann, 2021, p. 78; Retter, 2021, para.24).

Indigenous peoples' right to their own knowledge (Article 31.1 UNDRIP) does not only concern the return of knowledge that was historically alienated during colonisation and the respect of individual and collective ownership of ways of knowing and being in Indigenous communities. It also means respecting all forms of Indigenous knowledge production and transmission that take place, whether using traditional, Indigenous or Western scientific methods and knowledge systems in and outside their communities. Indigenous knowledge is not some alternative or other knowledge beside Western scientific knowledge. Western scientific knowledge is embedded in political and social conditions of its production and aims at being politically relevant, as is the case with Indigenous knowledge. Nevertheless, Western Science often has set research priorities, which are often less relevant or may be harmful from an Indigenous perspective. Indigenous knowledge production is still regularly belittled as folklore or ethnopolitical activism (see Holmberg, 2018, p. 36–37).

In particular, natural scientists (who, for example, have a higher share in climate change research in the Arctic), are highly specialised, and the methodical need to work on particularly detailed research questions often brings about a lack of embedding results into the societal context. Effective knowledge for tackling the great challenges for humans, such as, for instance, the impacts of climate change, requires starting out from a holistic perspective that embeds disciplinary competences therein. There is a lack of knowledge among natural scientists (an absence that is also transferred to early career scholars at universities) about Indigenous rights and why Indigenous people claim for their inclusion in research as well as how natural science research can effectively contribute to achieve Indigenous goals. Thus, opportunities of science innovation and advancing decolonial research are not reaching their full potential so far.

NEEDS AND OPPORTUNITIES

To recognise Indigenous peoples' right to knowledge implies respect of sovereignty in terms of defining and maintaining their own institutions in the field of education and research. It also implies the recognition of the contributions of Indigenous researchers and rightsholders to high-quality research and their key role in knowledge production (UNDRIP, Article 31.1). Hence, the establishment of mechanisms and structures for equal Indigenous involvement throughout the research process is of foremost importance. This spectrum could range from the realisation of the right to consultation to Indigenous leadership in research, thereby ensuring not only the right to self-determination and knowledge (as articulated in international declarations) in research, but also securing relevance, legitimacy, and quality of research, and very importantly securing Indigenous data governance (see Textbox 1).

Indigenous peoples have taken active steps to secure the right to direct consultations and decision-making rights on research, e.g., in the new Sámi Consultation Law (Lag om konsultation i frågor som rör det samiska folket), adopted in Sweden in January 2022,[4] and the discussion paper by the Saami Council (2021) on "Working towards ethical guidelines for research involving the Sámi" for a future process to develop common Sámi guidelines for research (Holmberg, 2021) or the National Inuit Strategy on Research developed by the Inuit Tapiriit Kanatami (ITK, 2018), and recently the guidelines of the Inuit Circumpolar Council (ICC, 2021). This emphasises that Indigenous peoples, along with research communities and decision makers outside their communities, move away from past practices of research focusing on knowledge extraction that produce unjust, exploitative, and often paternalist relations towards Indigenous peoples. Decolonial research translates to moving away from structures of domination towards genuine equaity in planning and decision-making on research strategies and processes and its funding. The inclusion of Indigenous rightsholders in all decision-making structures and processes concerning the planning and funding of Arctic research, on an equal footing with the relevant institutions at the nation-state level, can be understood as a form of realisation of the Indigenous right to self-determination (see Chapters 3 and 4).

The maxime "Nothing about us without us" has become a guiding principle for Indigenous peoples to indicate such a right to self-determination (Marsden et al., 2020). Meaningful community engagement, and respect and recognition of local perspectives, interests, and decision-making processes, also ensures what is called social licence for research, i.e., legitimacy for conducting research with any social group. Indigenous peoples are increasingly establishing their own procedures for legitimising research on their lands and territories (e.g., formalised consultation processes, protocols for research permits, ethical guidelines to be followed) and principles for Indigenous Data Governance (see Textbox 1). These should not be seen as obstacles but rather as tools to enable the relevance, effectiveness, and success of research, which is an important step to innovation.

[4] https://perma.cc/Q7JC-CC5Z

BEST PRACTICE EXAMPLE

Examples of Indigenous guidelines for research in the Arctic

- Saami Council (2021). Working towards ethical guidelines for research involving the Sámi – A Discussion paper on the work done so far and considerations on a process to develop common Sami guidelines. https://www.saamicouncil.net/documentarchive/working-towards-ethical-guidelines-for-research-involving-the-smi
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- Care principles for Indigenous Data Governance and Set of rights for Indigenous peoples' rights in data, by the Global Indigenous Data Alliance: https://www.gida-global.org/

KEY RECOMMENDATIONS FOR ACTION

Build on growing awareness among responsible staff in EU research funding agencies, and further promote a shift in funding systems to advance the realisation of Indigenous peoples' rights in funding practices.

Facilitate through specific funding mechanisms targeted capacity building among all fields of science to understand why decolonial research promotes innovation and how it can be implemented into the specific methods of the respective disciplines (see also Chapter 4).

Enhance the insight that decolonisation within academia can be fostered through a change in funding structures; besides other components that are necessary to achieve this objective (see Chapter 3).

Promote capacity building and training within EU funding institutions to recognise how the inclusion of Indigenous peoples already in the concepting phase contributes to high quality research.

Strengthen ties between EU institutions and with Indigenous organisations, Indigenous policy bodies, and knowledge producing and transferring institutions (Indigenous research and education) in research funding mechanisms and structures.

Promote the inclusion of Indigenous voices in projects and within EU funding bodies, and establish forms of full Indigenous participation in decision-making and capacity building that are not based on benevolence or paternalistic attitudes, but on a clear understanding of the rights of Indigenous peoples that the EU is committed to realising and defending.

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Riverboat trip in the Alta river / August 2017 / Alta

CHAPTER 2

METHODS AND METHODOLOGY AS KEY FOR DECOLONIAL RESEARCH

"You can't row in straight line with only one oar"

(Sámi proverb, cited from Harald Gaski, 2010, p. 67)

KEY MESSAGE

Acknowledging Indigenous peoples' right to self-determination in research goes hand-in-hand with rethinking overall ethics in both the natural and social sciences. Based on ethical guidelines found in Indigenous methodologies, this chapter highlights the relevance of reciprocal research relations that presume and respect the existence and acknowledgement of more than one way of knowing and being in this world.

VISION STATEMENT

2027 marks the year when Indigenous voices and perspectives have been thoroughly implemented at every level of the EU research funding landscape: 1) Projects involving Indigenous peoples or their ancestral lands require the consultation and approval of the community's representatives or to this end established bodies. This work is adequately supported through structural, logistically, and/or monetary means. 2) Research projects have a needs-based objective and can be denied if not deemed beneficial to Indigenous peoples themselves. 3) Indigenous people occupy leading roles throughout all steps in the research process and have a full say in all decisions. 4) Capacity for Indigenous partners, such as researchers, institutions, leaders, decision-makers, and communities, is strengthened in order to optimise participation and prevent research fatigue. 5) Indigenous data governance is secured.

STATUS QUO: CHALLENGES AND OBSTACLES

Rethinking ethical approaches to Indigenous research in the Arctic implies rethinking methodologies and methods for how research in the natural and social sciences and humanities is carried out. While methodology concerns the strategy and reasoning to investigate a certain thematic interest, methods specify tools and procedures used for approaching this interest. Opaskwayak Cree scholar Shawn Wilson (2008, p. 34) compares methodology to asking: "How do I find out more about this reality?" 'This reality' naturally differs between people in relation to their individual perspectives, which, in consequence, has to be taken into consideration when designing research methodologies and methods.

Instead of limiting oneself to a singular vantage point, we suggest incorporating multiple perspectives at every stage of the co-creative research process, fostering the development of partnerships that acknowledge varying worlds, knowledge, and values of all partners involved. We are here building on a Two-Eyed Seeing perspective in research (see, e.g., Wright et al., 2019) that combines the strength of both scientific knowledge and Indigenous world making practices and different views upon world(s). First introduced by Mi'kmaw elder Albert Marshall, Two-Eyed Seeing refers to "learning to see from one eye with the strengths of Indigenous ways of knowing, and to see from the other eye with the strengths of Western ways of knowing, and to use both of these eyes together, for the benefit of all" (Bartlett et al., 2012, s. 335). Figuratively—and literally—speaking, this can expand to all our other senses, such as hearing, which brings White's term 'double – listening' (White, 2006) to mind. 'Double – listening' also incorporates more than one way of knowing: with one ear you listen to a person's history; with the other, you try to listen to the unique experiences which differ from the dominant narrative.

Implementing Two-Eyed Seeing and other similar concepts that bridge different knowledge systems as part of the co-creative research process presupposes that there is a need to unsettle power-imbalances between different knowledge systems, as past and present colonial entanglements often disregard Indigenous ways of knowing and being. The Two-Eyed Seeing approach, as a concept, helps us to explain and highlight the importance of recognising Indigenous and non-Indigenous knowledges as equal. Its strength lies in the acknowledgment of more than one perspective, and the possibility to provide complementary insights to a phenomenon or issue, or have them evolve on their own terms. Co-creative research processes—such as Two-Eyed Seeing, double-listening, reflection and open dialogues—are essential for bringing together both scientific and Indigenous knowledges, and function as the conceptual starting points to develop methods for an implementation in our practice.

NEEDS AND OPPORTUNITIES

To allow for co-creation to unfold in decolonial and collaborative Arctic research, we suggest going beyond formal requirements and encourage familiarising oneself with ethical standards brought forth by Indigenous peoples, and use conceptual frameworks found in Indigenous methodologies as guiding ethical principles (see e.g., Wilson, 2018; Kovach, 2021; Kuokkanen, 2000; Porsanger, 2004; Smith, 2021; Tuck and Yang, 2014; Simpson, 2007). Research ethics in Indigenous contexts translates to more than adhering to general guidelines and directives established in the country where the research takes place, as they do not necessarily consider the colonial legacy of research itself and its broader implications for Indigenous peoples (see, e.g., Holmberg, 2021). Instead, we advocate for paying close attention to local, cultural, and context-specific principles and values on how to work together in equitable ways. In addition, we need to address the gap between Indigenous and non-Indigenous partners regarding capacity, participation, funding structures, knowledge infrastructures, and opportunities for international networking and exchange.

There is no 'one-size-fits-all' recipe for how to conduct decolonial research in the Indigenous Arctic, but a growing literature on ethics in Indigenous research (Finbog, 2020) highlights some principles which may serve as a guide for the unique research contexts and specific relations we all engage in (see Textbox 1). In the following, we will highlight six concepts—the so-called 'R's', found in literature from across varying Indigenous worlds—that should be conditions for all research projects in both the natural and social sciences: 1) The first concept is **representation**, and is closely interlinked with Indigenous participation in research processes, touching upon the need to critically reflect on each other's roles and possible biases in colonial power-relations. It is imperative to be critical about who should represent who in order to prevent objectification or misrepresentation of a community or a people. In practice, this translates to Indigenous scholars and knowledge holders occupying leading roles in all stages of the research, and not being considered mere assistants or advisors in the project. 2) **Relevance** focuses on the overall research premise and how useful it is to the Indigenous community that is either the centre of the study (e.g. in social sciences), or whose lands are impacted by it (e.g. in natural sciences). The research project should not solely be of interest to external researchers or research institutions but should include needs-based and problem-focused objectives that are relevant for the Indigenous community of concern. This involves carving out research aims and questions in a collaborative fashion during the project's planning phase. 3) **Respect** describes the willingness from all sides to honour each other's values, worldviews, needs, traditions, knowledge, wishes, and feelings as part of establishing research relations that are appreciative of each other. This can, as a very basic example, translate to becoming aware of different ways of voicing disagreement. Whereas some consider silence as a form of implied consent, others understand reticence to be a means of voicing disagreement in a way that lets everyone save face. 4) **Reciprocity** is a direct answer to extractivist research practices, here understood as a form of extracting knowledge not natural resources, which, in consequence, generates knowledge that flows in one direction only and considers people and their knowledge to be a commodity for exploitation. It values long-term commitment and focuses on what research can give back to Indigenous peoples and communities in ways that go beyond standardised research outputs (see also chapter 4). Thinking reciprocally is an ongoing and dynamic process, and means to be conscious of mutual exchange while perceiving solidarity and care as central to research relations. 5) The concept of **refusal** ties into the project's relevance as well as its direct effects and consequences on the people involved. Refusal is based on Indigenous self-determination and aims to limit ongoing colonial claims to access all existing knowledge. There is no implicit entitlement to execute research if it can be considered harmful in any way, e.g., technical research activities that are not secure or that are detrimental for either land or people, and it must be a given that Indigenous peoples have the right to refuse to participate. For example, Indigenous peoples may refuse to convey sacred knowledge, decline a research request due to limited capacity, or resist supporting research that primarily focuses on community problems, thus reinforcing biases and recreating stereotypes in the course of it. In practice, this can translate to the legitimacy of Indigenous communities to completely refuse the execution of a research proposal, or decide to opt for an autonomous or Indigenous-led approach instead. 6) **Responsibility** relates to the need for an acute awareness of the long-lasting impacts that research can have on landscapes, people and communities, as well as researchers' accountability for their actions. This means to holistically and carefully consider that we are accountable for the relations between all research participants.

As becomes apparent in the 'R's' conceptual frameworks, working towards a decolonial and collaborative research practice in the Arctic is a comprehensive enterprise that requires researchers to go beyond general institutional guidelines and directives. Ethical principles that centre relations, brought forward by the Indigenous communities and knowledge holders themselves, are highly relevant and require the research partners to engage in a constant dialogical exchange and form of working together that acknowledges the existence of more than one way of seeing and being in this world.

BEST PRACTICE EXAMPLE

“Coming of Age in Indigenous communities” – a decolonised research project

There are several arguments to allow the research project “Coming of age in Indigenous communities: Ageing, quality of life and home-based elderly care in Sápmi and Atayal region (Taiwan)” (Munkejord et al., 2021) to be considered a decolonial project. First, the project was based on the view of the Sámi Parliament of Norway that the elderly must be seen as a resource. Second, project team members invited and established cooperations with the Elders Council of the Sámi Parliament of Norway and organisations in Atayal. The project also established an international scientific advisory group with Indigenous members. Further, the project team included Indigenous researchers both from Atayal and Sápmi to follow the Two-Eyed seeing perspective in the project. Next, many Indigenous voices classify the Photovoice method as a decolonial method since the participants decide what they take photos of and then tell their stories about the photos. One project goal was also to contribute to cultural exchange between elders in Sápmi and Atayal. But since the COVID-19 restrictions prevented travel activities, the saved funds were used to publish a photobook and several digital exhibitions which have been presented at different occasions. The photobook was given to all participants, the members in the Elders council, and the advisory group as a thank you for their contribution. The photobook has also been sent to Sámi language and cultural centres, Sámi municipalities, and a number of health and social workers who work with elders. The book has also been given as a gift to contributors on two Sámi conferences in 2022.

Ánta Risten/Kirsten Ravna Sara by the reindeer marking corral where the calves get their owner’s earmark / “Coming of age in Indigenous Communities” project

KEY RECOMMENDATIONS FOR ACTION

Following general ethical research guidelines and directives (institutional or on a national level) is not necessarily fully sufficient; these need to be expanded with ethical principles established by either the local Indigenous community or larger Indigenous bodies.

Indigenous peoples should have access to leading roles in the overall research process, with proper remuneration for all roles ensured and support for capacity building in Indigenous scholarship and institutions (see also Chapter 3 and 4).

Research projects need to be relevant to the Indigenous community that either is the focus of the study itself or who live on or have rights to the land and waters that are part of the research.

In order for research to not be extractive, it needs to be agreed upon how Indigenous people can benefit from the research and what exactly will be given in exchange for people’s participation and involvement.

There is no underlying ‘licence to research’, and Indigenous peoples always have the right to refuse research projects which are considered harmful or not a priority, or due to lack of capacity.

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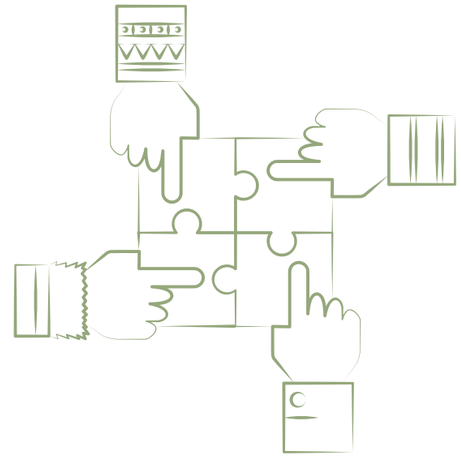
A sign of summer in the Arctic / July 2019 / Áisároaivi

Enjoying life and bright summers / July 2019 / Nakketjávri



CHAPTER 3

INDIGENOUS PEOPLES' PARTICIPATION IN EU ARCTIC RESEARCH FUNDING STRUCTURES AND DECISION-MAKING FOR SECURING DECOLONIAL ARCTIC RESEARCH IN PRACTICE

"Whose research is it? Who owns it? Whose interests does it serve? Who will benefit from it? Who has designed its questions and framed its scope? Who will carry it out? Who will write it up? How will its results be disseminated?"

(Linda Tuhiwai Smith, 2021, p. 10)

KEY MESSAGE

In order to improve the impact and benefits of any research activities carried out on Indigenous peoples' lands and waters, Indigenous self-determination in setting research agendas is critical. Accordingly, the co-development of Arctic research programs and funding policies by EU research funding bodies in formalised collaboration with Indigenous rightsholders is crucial to succeed in implementing decolonial research. This requires establishing permanent (remunerated) formal positions for Indigenous rightsholders within the respective EU decision-making structures. Such involvement includes identifying local research needs and objectives—while respecting that not all research affecting Indigenous peoples' lands and waters is appropriate for involvement of non-Indigenous researchers—as well as joint monitoring and evaluation of research proposals and projects in the natural and social sciences and humanities. This chapter identifies the opportunities and resources needed for full inclusion and participation of Indigenous rightsholders (going beyond mere consultation) in the decision-making structures of EU research policy development and funding structures. At the same time, we recognise that Indigenous rightsholders might decide to refuse to take part in EU decision-making processes as an act of resistance to colonial institutions and colonial practices, to avoid giving these processes a legitimacy that some Indigenous rightsholders do not wish to recognise. Working towards decolonisation of institutions, practices and structures takes many steps. This Roadmap is one contribution to this long-term process.

VISION STATEMENT

By 2027, Indigenous rightsholders have the possibility to be fully involved in decision-making positions and processes in EU Arctic research programs and funding infrastructures. They occupy leading positions and have a full say in all decisions within respective EU mechanisms—from developing research policy and grants to elaborating research calls, co-developing evaluation criteria, reviewing research proposals and funding decisions, monitoring projects, and evaluating these structural components. Appropriate structures are put in place in EU bodies responsible for research and funding programs to accommodate and ensure commitments to Indigenous leadership and thus further advance the decolonisation of EU research planning and funding processes and infrastructures. Mechanisms and resources for two-way capacity-building at EU level and in Indigenous peoples' institutions are provided and young academic Indigenous talents are actively supported to sustain Indigenous leadership, advance ongoing engagement between Indigenous experts and EU bodies for securing equitable Arctic research governance and decolonial Arctic research in practice.

STATUS QUO: CHALLENGES AND OBSTACLES

European research communities are increasingly addressing Indigenous knowledge sovereignty and Indigenous self-determination in research. EU institutions responsible for Arctic research and funding programs have recently made efforts to increase Indigenous participation, capacity building (e.g. the "Filling the EU-Sápmi knowledge gaps" project, the EU-Sámi Week in Brussels), and Indigenous knowledge in the development of natural and social science and humanities programs in the Arctic (e.g. Indigenous Advisory Group to accompany research projects; EU Commission public consultations on future research topics; Indigenous rightsholders consultation within the project EU-PolarNet and Indigenous project partners therein). EU research institutions have shown commitment to building respectful relationships with Indigenous peoples in polar research (e.g. as highlighted in the Integrated European Polar Research Program (2020)). Yet, there is so far no Indigenous leadership visible within EU funding agencies and institutions formally involved in polar research policy and grant development. This prevents joint assessment of needs in Arctic research topics and joint evaluation by Indigenous experts and non-Indigenous experts at all stages (research proposals, intermediate deliverables, final deliverables). There persists a gap in ensuring full engagement and decision-making power of Indigenous experts, beyond mere consultation, within relevant (high-level) boards of EU institutions responsible for Arctic research governance, including research programme and funding call development boards and project evaluation boards. These existing power imbalances and the non-representation of Indigenous Peoples from EU Arctic research policy committees and funding decision-making structures are clear obstacles to successful collaborative and decolonial research practices in the Arctic. EU research interests and EU knowledge demands may fail to benefit from Indigenous knowledge and expertise to advance methodological and ethical standards for equitable scientific knowledge production which have a longer history, e.g. in US and Canadian Arctic research funding schemes.

Current EU polar research structures and research contracting arrangements are consistent obstacles to Indigenous capacity building and thus perpetuate colonial research practices. A major shortcoming in ensuring decolonial reform of EU-funded Arctic research has been identified in the ERC (European Research Council) scheme, which targets "highly qualified researchers with exceptional scientific qualifications''. Indeed, the focus of the ERC (European Research Council) programme on individual achievement is antithetical to Indigenous perspectives that place an emphasis on relationships, collaboration and equitable processes and outcomes. This is a clear sign that Indigenous leadership during its development process was lacking. It is also mirrored across leadership and decision-making within the European academic system, where awareness of decolonial research and Indigenous ways of knowing at universities and research institutions (as bodies carrying out much of the Arctic research projects) is only growing slowly. This, in turn, is related to the current design of most research calls (especially in the natural sciences) and funding structures, which do not yet provide sufficient incentives for a paradigm shift in Arctic social and natural research and academic institutions. Since the political awareness of decolonial research is only timid in academia, university structures often continue to follow "classical" epistemologies and methodologies rooted in colonial practices that are elitist rather than inclusive of Indigenous peoples and their ways of doing research.

There is pressure on Indigenous scholars employed in traditional universities to publish in conventional academic journals, speak at international conferences, and participate in international

research networks (Smith, et al., 2016, p.133). In addition, Indigenous scholars and other rightsholders have commitments to the communities they belong to: they are often active in local politics to secure relevant educational programs for their children; they participate in debates on Indigenous rights and social justice, and hold positions in Indigenous NGOs. As part of a community, these scholars also need to practise, mediate and themselves learn more about being connected to land and waters to be recognised as part of the Indigenous community – however, all of these responsabilities are "fundamentally irrelevant when it comes to the structure of their academic vita for tenure and promotion" (Asmer et al., 2009, p.34-35, cited in Smith et al, 2016, p.134). Indigenous academics need a safe place to engage with questions of how co-creation in research can support the needs for new knowledge and how partnership can support capacity building for a future for Arctic indigenous communities (see Textbox 3).

NEEDS AND OPPORTUNITIES

Reshaping European funding structures and European research programme design (see also Chapter 4) towards decolonisation requires the full and equal inclusion of Indigenous rightsholders. This could then lead to a reform of ethics, diversity, and inclusivity, as well as the introduction of new epistemologies and methodologies throughout research and academia. Engagement with Indigenous peoples must go beyond consultation. A long-term relationship of jointly working together within EU institutions needs to be developed and strengthened. To tackle the current gap in the decision-making power of Indigenous rightsholders and experts in EU Arctic research and funding structures, there is a need to formalise the inclusion of Indigenous Peoples towards full engagement into the whole setup of EU-funded Arctic research infrastructure. This could be achieved through defining decision-making roles and leadership positions of Indigenous actors: 1) within the structures of EU funding bodies and especially in research drafting and evaluation boards, committees and teams; 2) to enhance their involvement in decision-making project steering committees and project specific scientific advisory boards (see also Chapter 4).

Research development and evaluation procedures are key in securing the funding of quality project proposals and achieving research results that contribute to meeting the needs of Indigenous communities and ensure that Indigenous rights are not violated (see also Chapter 1). Indigenous experts must hence have a full voice at the table in all decisions within the respective EU polar research funding mechanisms. Indigenous and EU experts should work together to identify the strategic direction of European polar research and develop funding programmes in the natural and social sciences and humanities based on the priorities of Indigenous peoples and communities (see also Two-Eyed Seeing, Chapter 2). Importantly, this includes criteria for decision-making, monitoring, and evaluation of funded projects as well as structural decisions regarding the set-up of funding for research, e.g. decisions regarding the provision and design of funding schemes for a scoping phase (see also Chapter 4). Another example is application templates, which should be co-designed in such a way to encourage Indigenous applicants and enable Indigenous participation and leadership, as completing current EU Horizon templates requires tremendous capacity (see also Wong et al., 2020). While large academic institutions can afford to hire support staff for Horizon applications, smaller and Indigenous institutions often do not have that capacity, which creates an unequal playing field. Support structures could be put in place to help ease this situation.

The rarity of Indigenous experts inside the EU financial structure is likely also owing to the EU definition of "expert" obscuring Indigenous professionals. The qualification of Indigenous experts cannot always be demonstrated in terms of academic achievements or the form of Western standardised CVs, and funders need to ensure they adopt appropriate eligibility and evaluation criteria (Wilson et al., 2020; Wong et al., 2020, p. 778). In this case, a reformulation of the criteria for expert classification inside EU institutions to incorporate Indigenous criteria for being classed as an expert should be strongly considered. In this way, more Indigenous rightsholders have a full voice at the table in all decisions within the respective EU polar research funding mechanisms, and can work together with EU-agency staff to shape the strategic direction of European polar research in a way that responds to communities' needs (see Textbox 4 in Chapter 4 for a good example on joint funding call development).

In line with reconsidering the definition of expert professionals within the EU institutions, there is an urgent need to reform the eligibility criteria and redefine the ERC (European Research Council) funding call (early-career and advanced researcher, which targets "highly qualified researchers with exceptional scientific qualifications"). Concepts of "excellence" and "exceptional scientific competences" must be reformed in such a way that includes Indigenous definitions of "excellence," Indigenous ways of knowing and taking responsibility, and Indigenous knowledge production. These terms need to be defined by competent Indigenous rightsholders and Indigenous academics. For such reform of the ERC scheme to be successful, ERC professionals should work together with Indigenous rightsholders and Indigenous academics should work together with ERC experts to formalise the implementation of a decolonial research approach into the ERC scheme. This collaboration requires measures to be taken for Indigenous rightsholders to have funded leading positions in ERC call development teams and ERC applicant review panels.

When EU funding programmes are implemented, Indigenous participation is crucial at every stage. This includes writing concrete calls, evaluation of submitted proposals, funding decisions, monitoring of the implementation of decolonial methods during the core research phase, and evaluating project outcomes. By co-developing calls for funding together with Indigenous rightsholders (i.e. Indigenous researchers, institutions, organisations, knowledge centres, and others), funders can lay the foundation for just, relevant, and accessible research programs and projects (Doering et al., 2022, pp. 6, 9; Wong et al., 2020, p. 777; ITK, 2018, p. 31). Similarly, funders should work with Indigenous partners to co-develop appropriate evaluation criteria and procedures for the selection of project proposals and the later evaluation of projects (see also Doering et al., 2022, pp. 6, 7, 9; for more critical information on evaluation, see also Bowman et al., 2015) to ensure that co-creation does not become a label for token involvement of Indigenous peoples in research (see also Doering et al., 2022, p. 6; Wong *et al.,* 2020, p. 780).

Full inclusion of Indigenous rightsholders and experts within EU structures responsible for polar research programming and funding can only succeed if the EU institutions provide sufficient time and proper salaries for these Indigenous leadership positions, including financing for long-term capacity building within Indigenous institutions and organisations (Doering et al., 2022, p. 7; see also ITK, 2018). In line with the Two-Eyed Seeing approach (described in Chapter 2), the capacity for decolonial Arctic research and co-creation methods and Indigenous epistemologies needs to be built in parallel within EU institutions. Through this, a respectful and long-term relationship can be built between Indigenous rightsholders and experts and EU-institution professionals.

A reformed EU funding structure can also inspire and trigger reforms in academic institutions (universities and research institutions). EU fund-

ing agencies and the European academic system as a whole need to reflect on and respond to European colonial history in the Arctic by supporting the rebuilding of Indigenous knowledge as well as Indigenous sovereignty and self-determination in research. Research has for a long time been, as Maori scholar Linda Tuhiwai Smith (2021, p. 1) argues, a *dirty word* in Indigenous communities, and trust needs to be rebuilt. Lack of trust can be overcome by embedding research not only in Indigenous communities but also by supporting the establishment of safe spaces of Indigenous-led research communities. Supporting such efforts is necessary to claim a decolonial endeavour in the EU Arctic research programme development and funding structures and processes. Building cohorts of future Indigenous experts who will take a leading role in the decision-making structures of the EU polar research funding system, as well as capacity building measures tailored to the young Indigenous generation at all stages of formal and non-formal education (e.g. vocational schools, universities and non-university research institutions, and museums) are critical. European academic institutions must put concrete measures in place to engage and inspire Indigenous peoples to participate in and for research, promoting young Indigenous researchers by offering targeted support, having senior Indigenous researchers serve as principal investigators in research projects so they can serve as role models to younger Indigenous scientists, and providing mentorship and safe spaces for Indigenous early-career scholars. The recently introduced strategy to support Indigenous Master's students by one of Canada's federal funding agencies is a good example. EU Arctic funding structures should support such efforts (see also Chapter 4) by providing resources to Indigenous academic institutions at all levels to support long-term capacity building and Indigenous scholarship (see Textbox 3). Funders should celebrate Indigenous-led projects and project ideas so that they can serve as a lighthouse to younger scientists. The annual Arctic Inspiration Prize Initiative in Canada is a good example (see https://arcticinspirationprize.ca/).

Decolonial approaches and Indigenous leadership in decision-making should not only be implemented in actual EU funding structures but must continuously shape the setup of future EU polar research-related institutions, such as the future EPCO (European Polar Coordination Office) and its code of conduct that is currently being developed within the EU PolarNet 2 project. However, care must be taken to ensure that the (mandatory) inclusion of Indigenous rightsholders into EU decision-making structures targeting Arctic research programmes and funding does not lead to a system of tokenism in EU polar research infrastructure, nor to Indigenous "add-ons" to research projects in the field. It is equally important to gain insights within the EU funding bodies about what kind of innovations, new knowledges, and societal benefits have been generated by such a reform of the mechanisms in EU Arctic research funding.

BEST PRACTICE EXAMPLE

Fostering Indigenous Capacity

How can academic institutions and funding programs respond to the colonial legacy of research? We will suggest establishing specific funding that could foster and support a new generation of indigenous scholars with the networks and tools to become academic leaders with the capacity to respond to a growing interest in co-creation initiatives. In order to strengthen Indigenous research communities that today are small and chattered, there is a need to finance Arctic Indigenous networks that would bring together scholars that could support each other: where academic elders could guide the younger generations and where publication initiatives based on Indigenous premises could be built. This could be an extended scholarship program for different levels: a digital space; a program where academics on a yearly basis could meet and where care, stories, research possibilities and ideas could travel without friction and where Indigenous academics do not need to explain themselves. This could be an innovation lab for Indigenous led publications, conferences and new projects that not only connect Indigenous scholars from different territories but also connect the communities their knowledge is embedded in.

KEY RECOMMENDATIONS FOR ACTION

Indigenous rightsholders must be fully included and equally represented in the decision-making processes of EU Arctic research funding bodies.

Binding inclusion of Indigenous peoples in EU Arctic research funding infrastructure should be achieved by securing decision-making roles and by establishing permanent, remunerated formal leadership positions for Indigenous rightsholders within the structures of EU funding bodies. In particular, in the panels, committees, and teams for drafting and evaluating research calls, this inclusion is critical.

Indigenous rightsholders must have a full say in all decisions within EU funding mechanisms. This includes the development of Arctic research policy and grants, research calls, review of research proposals, participation in project funding decisions, monitoring the implementation of collaborative and decolonial methods in the implementation of research projects by consortia, and mid-term and final evaluation of project outcomes.

To create equal opportunities for Indigenous peoples in the European Research Council (ERC) application process, the design of ERC grant application calls needs to be reconsidered. This means reforming the eligibility criteria (see Chapter 4) in partnership between funders and Indigenous scholars and other rightsholders. It also requires redefinition of the notion of the "exceptional scientific competence" of a top researcher in a way that includes Indigenous ways of defining "excellence" in terms of indigenous ways of knowing and taking responsibility (knowledge production). Indigenous rightsholders take leading positions on ERC call development teams and ERC applicant review panels.

EU funding for a scoping phase of Arctic research projects—a precondition to build researcher-community relationships and co-create proposals—should be developed together with Indigenous rightsholders.

Funding calls for Arctic research must be co-developed by Indigenous rightsholders and EU experts in joint teams.

Two-way capacity building should be the norm: EU institutions should provide resources for long-term capacity building within Indigenous institutions. This will support Indigenous experts and build a larger pool of future Indigenous leaders in EU polar research funding bodies. On the other hand, the capacity on decolonial Arctic research, co-creation methods, and Indigenous epistemologies must be built within EU institutions through training courses for EU staff.

To build cohorts of future Indigenous leadership in the decision-making structures of the EU polar research funding system, European academic institutions supported by EU resources must take measures to inspire young Indigenous people for research, promote young Indigenous scientific talents by offering targeted funding, and provide mentorship for Indigenous early-career scholars.

Decolonial approaches should shape the design of the future EPCO (European Polar Coordination Office) and its code of conduct.

The inclusion of Indigenous rights in the structures of EU research funding in the Arctic must not lead to a system of tokenism.

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Reindeer herd of a Forest Nenets and Khanty family near the community of Numto
2006 / Western Siberia, Russia

Marking the winter trail / January 2018 / Geašjávri

CHAPTER 4

FUNDING FOR CO-CREATIVE AND INDIGENOUS-LED ARCTIC RESEARCH

"For far too long, researchers have enjoyed great privilege as they have passed through our communities and homeland, using public or academic funding to answer their own questions about our environment, wildlife, and people."

(Inuit Tapiriit Kanatami [ITK] 2018, p. 3)

KEY MESSAGE

Funders play an important role in research and have the power to make possible and encourage co-creative and Indigenous-led research. Yet funding structures continue to create barriers to ethical and equitable research relationships. To overcome exploitation in research, funders can take important steps by continuing to revise their programmes.

VISION STATEMENT

By 2027, EU funding bodies advertise calls for funding well in advance of submission deadlines, or without deadlines, to enable consortia to form without time pressure, to ensure that research proposals are co-developed, and to avoid that co-creation turns into tokenism. Funding is provided for a one-year scoping phase and Indigenous peoples' organisations, institutions, museums, knowledge centres and non-academic experts are eligible to apply for project funding and serve as project leads and Principal Investigators. Project proposals across the natural and social sciences and humanities are evaluated and selected based on criteria developed by funding agencies in partnership with Indigenous partners, and priority is given to Indigenous-led research. Proper funding is provided for all roles in a research project; local financial benefits are secured; and funding structures are set up to enable local participation. Funders allow for flexibility in research projects and budgets and accept outputs other than academic publications as well as outputs not predetermined in project proposals. Bureaucratic requirements for applications and reporting are simplified. Funding is provided also after the main project period has ended in order to secure ongoing publications and/or other co-created outputs, maintain relationships, and create a strong foundation for potential future projects

STATUS QUO: CHALLENGES AND OBSTACLES

Funders assume a powerful role in the research landscape. The priorities that funders assign to topics and issues determine what kind of research is carried out, and funders can set up programs in ways that enable and support Indigenous-led and co-creative research (see Chapter 3). However, Arctic research remains dominated by non-Indigenous researchers as funding structures often exclude Indigenous rightsholders (ITK, 2018, p. 25) and hinder knowledge co-creation, with far-reaching consequences for communities and project outcomes. While EU institutions have taken important steps to achieving greater equality and countering exploitative Arctic research, it is crucial that these efforts are continued and strengthened.

The structure and implementation of funding schemes are repeatedly identified as key obstacles to Indigenous-led and co-creative research. Insufficient provision of funded time, inappropriate eligibility criteria for funding programmes, and inequality in project budgets constitute potent examples. As a consequence of colonial exploitation, Indigenous peoples' organisations, institutions, and knowledge centres often have lower capacity and therefore require more time than large, well-funded universities and research institutes to (co-)develop proposals and engage in research. In any transdisciplinary project, adequate time is needed to establish common goals, build relationships, and develop shared understanding of terms and concepts; this is especially relevant when working across knowledge systems (i.e. Western science and Indigenous knowledge). Time also plays an important role in collaborations with Indigenous communities, in which academic calendars and funding deadlines may collide with seasons during which hunting, reindeer work, fishing, travel, or other activities need to be prioritised (see also Cooke et al., 2020, p. 92; Chanteloup et al., 2019, p. 138). Many funding programmes are inaccessible to Indigenous peoples' organisations, institutions, knowledge centres, and small businesses. Although these actors are well-positioned and qualified to develop and carry out urgently needed research, they often do not meet official criteria to be recognised on the same terms as university researchers or to act as principal investigators or project leads (see also ITK, 2018, pp. 4, 25). While Western researchers receive salaries, Indigenous rightsholders are regularly expected to give their time and expertise to research projects for free as members of expert groups, research facilitators, interviewees, and in other roles (Doering et al., 2022, p. 7). As long as individuals involved in research activities are excluded from research budgets, research relationships will remain unequal and research projects will stay behind their full potential. Change is urgently needed across academic disciplines, and especially in the natural sciences, regardless of whether or not projects involve direct human engagement (see also Wong et al., 2020).

The following sections of this chapter closely follow the structure and content of an academic research paper on funding in Arctic research (Doering et al., 2022), which was co-authored by several of the authors of the Roadmap and for which broader engagement (in the form of workshops and conference sessions and an review process with Indigenous experts) was organised to include diverse experiences and expertise.

NEEDS AND OPPORTUNITIES

Indigenous rightsholders are regularly brought into research activities after proposals have been selected for funding, often violating their right to give or withhold consent to planned projects and too late for true co-creation. This limits the ability to cross-cut research ideas, aims and methods with an Indigenous perspective and to formulate Indigenous societal and scientific interests in participating in research. Unlike academic consortium partners backed by institutional resources to work on project proposals, most non-academic Indigenous partners have no means to meaningfully co-develop a proposal with potential academic partners. Indigenous researchers and research institutions often face similar capacity issues and need to stretch thin to serve various demands from their communities. Funders are well-positioned to ameliorate this situation by providing time and funding for a scoping phase of at least one year. In order to collaboratively submit a research

proposal, potential Indigenous and non-Indigenous partners need time and resources to build relationships, identify context-specific research needs and questions, develop shared understanding of terms and concepts, agree on expectations, roles, and responsibilities, co-develop research methods, reach out to communities, and co-write a proposal (Doering et al., 2022, pp. 6, 9). Funding for the pre-proposal stage is crucial for collaboration in research (see also Castleden et al., 2012, p. 168; Latola et al., 2020, p. 10; Wilson et al., 2020) and is needed for "travel, salaries, honoraria, meeting space, interpretation, and translation services" (Doering et al., 2022, p. 9). During our dialogue session with representatives of the EU Commission for this Roadmap, we were told that there was no familiarity with this type of funding within the EU Commission and that funding for a scoping phase would need to be studied in the context of the Commission's overall funding architecture. This would be a crucial undertaking.

To provide sufficient time for the co-development of research proposals, calls for funding need to be advertised well in advance of submission deadlines or operate without deadlines (see also Textbox 4; Doering et al., 2022, p. 6). By carefully revising application requirements, EU funding experts can ensure they do not overburden and thereby exclude potential applicants with limited capacity from the application process (see also Chapter 3; Doering et al., 2022, pp. 6, 9; Wong et al., 2020, p. 778). As described in Chapter 3, this revision needs to be undertaken jointly by Indigenous rightsholders and EU professionals.

The specific evaluation criteria and procedures for the selection of project proposals for funding schemes should be co-developed by funders and Indigenous partners (see also Chapter 3, Doering et al., 2022, pp. 7, 9). Based on work done by Indigenous organisations and others, it is possible to identify some basic criteria (which do not replace the need for co-development described in Chapter 3) and take into consideration the following basic requirements: Projects seeking funding are required to adhere to ethical standards that acknowledge the contextual nature of ethical considerations (e.g. OCAP®; IARPC, 2018; the five 'R's' (Carjuzaa and Fenimore-Smith, 2010, p. 5), extended to six 'R's' in Chapter 2; Sámediggi 2021b; see also Textbox 1). Funding agencies need to recognise this as well. Project proposals must include a plan for genuine collaboration that prioritises relationship-building and respect for Indigenous protocols. Effective co-creative projects are more likely to succeed when there are strong pre-existing relationships. Non-Indigenous research partners should offer mentoring and training to Indigenous community researchers, as well as recruit Indigenous rightsholders, as a demonstration of respect for Indigenous self-determination (Doering et al., 2022, p. 7). Funders should ask for a clear plan for such mentoring and training in the project proposal. An understanding of the historical and cultural context, as well as experience with collaborative research, can increase the likelihood of successful projects for non-Indigenous researchers. Additionally, a training plan for team members without experience is crucial (Doering et al., 2022, p. 7).

In the selection of project proposals and the implementation of research projects, a particular focus needs to be placed on (proposed) budgets and leadership roles. Funders should give priority to Indigenous-led research (Doering et al., 2022, p. 7; ITK, 2018, see also Wilson et al., 2020) and ensure that Indigenous researchers, institutions, organisations, knowledge centres, small businesses and other entities are eligible to apply for funding and act as principal investigators and project leads (Doering et al., 2022, pp. 7, 10; ITK, 2018, p. 25; Wong et al., 2020, p. 778). Funders should contribute to crucially needed capacity building by ensuring that such institutions and entities receive funding through their funding programmes (see also Chapter 3). Project budgets need to reflect collaboration throughout the project lifecycle. This includes budgeting for travel, salaries, activities and equipment, for example,required for the "co-analysis, interpretation, validation and reflection of research results" (Doering et al., 2022, p. 7). The work and other contributions of all persons engaged in a research project must be compensated with an appropriate share of the project budget (Doering et al., 2022, p. 7; Latola et al., 2020, p. 10). Research projects should secure local financial benefits. This can, for example, be done by hiring locally in various professions, local procurement of goods and services, and the remuneration of time and efforts provided by locals and Indigenous organisations, institutions, knowledge centres and businesses in various ways, ***beyond*** ensuring that Indigenous and non-Indigenous research partners work in equal relationships with full research funding. In order to achieve this, funding and payment structures need to be set up in ways that benefit local recipients, keeping in mind that the flow of money might function differently at the communal level. For instance, in some areas, the process of using a signature for receiving money might be perceived as 'unusual' (see also Wong et al., 2020, p. 778). By enabling and supporting Indigenous leadership in research and ensuring that proper funds are allocated to Indigenous participation at all levels of research projects throughout the research lifecycle, funders can take important steps to contribute to relevant capacity building (see also Chapter 3; ITK, 2018).

Collaborative research involves joint creation of the project, co-production of novel knowledge, and co-generation of outputs. Flexibility and openness to adjustments are key, along with community review, validation and modification of results. Outputs should benefit Indigenous peoples, be shared appropriately, and reflect Indigenous ways of transmitting knowledge. Funders should allow diverse output formats and adjust reporting requirements. Consistent and culturally appropriate review opportunities for all partners can enhance project quality, including an end-of-project evaluation (Doering et al., 2022, p. 8).

Funders can ensure that project outputs are co-created, relevant, and reach Arctic communities "by funding time and salaries for the co-production of journal articles, reports, and other forms of output (e.g. exhibitions, community dialogues, films, etc)" (Doering et al., 2022, p. 8; see also ITK, 2018, p. 11) after the main research phase of a project has ended. Funders can thereby facilitate lasting relationships and improve future research initiatives (ibid.).

Mechanisms should be established to provide guidance to researchers for conducting co-creative research and capacity building within funding agencies.

The Horizon Europe—the EU's largest transnational research funding scheme and framework programme—has pursued encouraging commitment to Indigenous inclusion and awareness about benefits of decolonial research in the development of their calls and call structure, i.e. through eligibility of funding for Indigenous rightsholders as research consortium members as well as through explicit formulation of calls that foresee research collaboration with Indigenous rightsholders.

Capacity building needs to be two-way. In academia, resources and mechanisms are urgently needed to provide training and consulting initiatives to scientists, especially in the natural sciences, on how to design and implement collaborative projects since such methodology is not yet fully understood and practiced in this field. This is all the more important because the natural sciences account for the largest share of EU-funded polar research projects and receive the highest levels of European funding. Horizon Europe funded projects that were co-created with Indigenous communities (e.g., CHARTER or ArcticHubs) demonstrate that no science (including natural science) is separated from society, and might serve as best practices and learning tools for natural scientists.

The Canada-Inuit Nunangat-United Kingdom Arctic Research Programme 2021 – 2025 (CINUK)

The CINUK Programme (£11.2m GBP) brings together “Inuit Tapiriit Kanatami, United Kingdom Research and Innovation (UKRI), POLAR Knowledge Canada, the National Research Council of Canada (NRC), Parks Canada Agency, and Fonds de recherche du Québec”13 projects (2021–2024) co-developed by scientists and Inuit community representatives have been selected and funded, based on Inuit and regional perspectives. According to their website, reserach funded as part of the CINUK programme will cover “a wide range of areas, including shipping, wildlife health, country foods, ecosystem health, safe travel, search and rescue, renewable energy, community health, coastal erosion, plastics and pollution, and much more”.

For more information, see: https://www.arctic.ac.uk/research/canada-inuit-nunangat-united-kingdom-arctic-research-programme-2021-2025-cinuk/

Funding Programmes with no deadline – U.S. National Science Foundation

The U.S. National Science Foundation provides Arctic Research Opportunities (NSF 21-526), for which applications are accepted at any time and with broad eligibility criteria. For more information, see https://www.nsf.gov/pubs/2021/nsf21526/nsf21526.htm

Old Colonial Harbour in Nuuk / December 2022 / Kalaallit Nunaat

KEY RECOMMENDATIONS FOR ACTION

Advertise calls for funding well in advance of submission deadlines or without specific deadlines.

Provide funding for a scoping phase of at least one year to enable relationship building and co-development of research proposals. Funding should include “travel, salaries, honoraria, meeting spaces, interpretation, and translation services” (Doering et al., 2022, p. 9).

Revise application requirements to ensure that potential applicants with limited resources are not excluded and Indigenous peoples’ organisations, institutions, museums, small businesses, knowledge centres and experts without formal academic degrees are eligible to apply and serve as project leads and principal investigators.

Ensure that funding can be allocated to all positions and activities involved in co-creative research projects. Enable local financial benefits beyond ensuring that Indigenous and non-Indigenous research partners work in equal relationships with full funding. Adjust funding structures and processes to reduce barriers to local participation.

Allow for flexibility in research projects, including research budgets (e.g. enable for funds to be moved from one year to the next).

Allow for outputs other than academic publications.

Select project proposals and evaluate projects across the natural and social sciences and humanities based on criteria and procedures co-developed with Indigenous partners and give priority to Indigenous-led research.

Provide funding after the main project period has ended to enable maintenance of research relationships, co-authorship, dissemination of results, and access to data.

Revise reporting requirements to decrease the overall pressure on Indigenous peoples’ organisations, institutions, knowledge centres, and researchers.

Resources and mechanisms should be provided to offer training and consulting initiatives to natural scientists—who receive the largest share of EU-funded polar research projects—on how to implement co-creative and decolonial research in practice.

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CLOSING WORDS

Reporter: "What is the most important thing for them to know about the future? What would you tell the scientific audience? The researchers? What is now the important thing to know, right now in 2022?"

Aslak Holmberg: "That's a very big question. But what I would highlight is that when we are talking about knowledge and knowing, we're facing a situation that nobody knows what will be ahead of us. So, I think that (this) is also a factor that draws us to the same line in a way, that we are all looking into this great unknown. So, even bits and pieces that might seem irrelevant can be very valuable when looking into the big changes that are happening around our ecosystems and lives. So, I think that this certain humbleness would be what I want to highlight, that we need to find ways to come to the table and admit that we don't know what's going to happen. So, let's see what is the path forward."

Saami Council President Aslak Holmberg, Statement on co-creation in Arctic research (Arctic Passion 2022, 08min04sec)