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The European Union in International Gender Politics: Internal Limitations to Normative Leadership

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Fostering the EU's actorness in the Arctic: the interplay between science and regionalism

by

Heidi Renault*

Abstract

Since 2008, the European Union (EU) increased significantly its involvement in the Arctic and applied to the observer status in the Arctic Council, the most prominent regional forum in the Arctic. Nevertheless, it has made several diplomatic mistakes hampering its actorness in the region whereas the EU holds major strategic interests in the area. As a result, the EU is still perceived by the Arctic States as an external actor, and even as a threat to the current Arctic regime. This study questions the degree of actorness of the EU in the region by analysing its use of scientific cooperation to promote its strategic interests. It analyses the use of science diplomacy by the EU in the framework of the Barents Euro-Arctic Cooperation in relation to the Arctic Council context. This comparison questions the EU's capabilities and presence by comparison to the Arctic States within the Arctic regional regime. The case study of scientific cooperation allows unveiling diplomatic tools and relays for the EU to potentially increase its actorness by building its legitimacy as a regional actor through the region-building of European Arctic.

Keywords: Science diplomacy; Arctic; Actorness; Regional cooperation

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Fostering the EU's actorness in the Arctic: the interplay between science and regionalism

Introduction

Since 2008, the European Union (EU) increased significantly its involvement in the Arctic and intends to obtain the observer status in the Arctic Council, the most prominent regional forum in the Arctic. In its new Arctic Policy published in October 2021, the EU renewed its application to this status. It also reaffirms its belonging to the Arctic region, and its legitimacy while highlighting its role as a geopolitical power, especially under the climate regime. While some European regions are part of the Arctic as delimitated by the Arctic Circle, which is the most widely-used border to define the Arctic region[1], the EU is still perceived by the Arctic States[2] as an external actor. In the meantime, other international organisations were granted the observer status such as the International Marine Organisation (IMO) in 2019[3] or non-Arctic States such as Japan, Italy or India in 2013[4]. Through its Arctic Policy, the EU seems to have made several diplomatic mistakes hampering its actorness in the region whereas the EU holds major strategic interests and invests significantly in the area.

Under the Horizon 2020 programme for research and innovation, the EU has dedicated a budget of €200 million for Arctic Research[5]. This makes the EU one of the largest contributors to research and regional cooperation in the Arctic region. In the Arctic Regime, scientific cooperation is a strong diplomatic and policy tool for actors, such as states and regional organisations like the EU, to strengthen their position. Indeed, the Arctic is an interesting study case to analyse the interplay between science and policy. Polar research is

[1] Keskitalo, E. Carina H.; Koivurova, Timo and Bankes, Nigel, "Chapter 1: Climate governance in the Arctic: Introduction and Theoretical framework", in Koivurova, Timo; Keskitalo, E. Carina H.; Bankes, Nigel, *Climate governance in the Arctic*, Environment and Policy, Vol. 50, Springer, 2009, pp. 20-23.
[2] Eight Arctic States composing the Arctic Council: Canada, Denmark via Greenland, Norway, Sweden, Iceland, Russia and the United-States, Finland.
[3] The Arctic Council, "Intergovernmental and interparliamentary organizations", accessible here: https://arctic-council.org/about/observers/intergov-interparl/.
[4] *Kiruna Declaration on the occasion of the eighth ministerial meeting of the Arctic Council,* 15th May 2013, Kiruna, Sweden, available at: https://oaarchive.arctic-council.org/handle/11374/93.
[5] Koivurova, Timo; Hakon Hoel, Alf; Humper, Malte; Krichner, Stefan; Raspotnik, Andreas; Smieszek, Malgorzta; Stepien, Adam, *Overview of EU actions in the Arctic and their impact*, EPRD Office for Economic Policy and Regional Development Ltd, June 2021.

highly contributing to the analysis of climate change with the emergence of a climate regime[6]. The Arctic raised a constant interest on the global stage both for its capacity to act as a showcase of climate change and the strategic opportunities climate change opens like the access to new resources and new commercial roads ("*Arctic Paradox*"[7]). Moreover, the Arctic Council is tailored to provide reliable data and evidence to the Arctic States in order to elaborate their respective Arctic and climate policies on the basis of scientific knowledge[8]. Despite the EU strong involvement in polar research cooperation, which is the basis of the governance and diplomacy in this region, it still faces hurdles in being acknowledged by the Arctic states as a relevant regional actor.

This study focuses on the use of regional scientific cooperation by the EU to promote its strategic interests, and enhance its actorness in the Arctic region. It explores the use of science diplomacy by the EU in the framework of the BEAC by comparison with the Arctic Council's context. While the latter is an intergovernmental fora, the former is combining both intergovernmental and interregional approaches within its structure. The Arctic Council have been chosen for its prominent role in the region as a space of dialogue. Its evolution towards an arena of decision-making[9] also strengthens its relevance for the analysis as it increases the strategic needs for the EU to join this arena as an observer. The BEAC has been chosen for comparison because the EU is highly involved in this fora with the European Commission acting as a full member of the Barents Euro-Arctic Council. Both forum also cover similar activities and goals while the BEAC particularly highlights capacity-building activities related to regional cooperation.

In terms of methodologies, the research applies the criteria developed by Luk Van Langenhove on science diplomacy in the EU Arctic policy: willingness, acceptance and awareness[10] in combination with the concept of actorness as developed by Charlotte Bretherton and John Vogler[11]. These criteria will serve to determine to what extent science is considered as a political means and to discuss the balance of power between the EU and the Arctic States. The case study of scientific cooperation unveils diplomatic tools and relays for the EU to potentially increase its actorness in the Arctic regional regime by building its legitimacy on the region-building of the European Arctic. Actorness is a useful tool to

[6] JOUVENET Morgan, *Des pôles aux laboratoires: les échelles de la coopération internationale en paléoclimatologie (1955-2015)*, Revue française de sociologie, vol. 57, no. 3, pp. 563-590, 2016.
[7] DE BOTSELIER Bram; PIQUERES LOPEZ Sofia; SCHUNZ Simon, A*ddressing the "Arctic paradox": Environmental policy integration in the European Union's emerging Arctic policy*, EU diplomacy paper, College of Europe, no. 3, 2018.
[8] *Arctic Environmental Protection Strategy* (AEPS), 14th June 1991, Rovaniemi, Finland, Article 2, p. 13.
[9] Berzyna, Kristine, "Why the Arctic matters for the rest of Europe", in Spruds, Andris and Rostoks, Toms (eds.), *Perceptions and strategies of Arcticness in sub-arctic Europe*, Latvian Institute of International Affairs, 2014.
[10] VAN LANGENHOVE Luk, *Tools for EU Science Diplomacy,* Institute of European Studies at the Vrije Universiteit Brussel and United Nations University Institute on Comparative Regional Integration Studies, for the Directorate General for Research and Innovation (European Commission), 2017.
[11] BRETHERTON Charlotte and VOGLER John, *Conceptualizing Actors and Actorness*, in Bretherton, Charlotte and Vogler, John, "The European Union as a Global Actor", London and New York, Routledge, pp. 12-61, 2006.

examine the capacity of an actor to lead political action autonomously[12] and, thus, to determine to what extent the EU achieves its strategic goals through its involvement in polar research cooperation. Charlotte Bretherton and John Vogler stress an actor can be defined as *"an entity that is capable of formulating purposes and making decisions and thus engaging in some form of purposive action*"[13]. Actor capability is then defined as "*the capacity to behave actively and deliberately in relation to other actors in international system"*[14]. Therefore, the actorness calls upon structuralist and constructivist approaches to seize the complexity of regional organisations' functioning. According to structuralism, institutions are constraining actors' capacity but are also providing them with a structure whereby they can act. Moreover, the constructivist approach reminds institutions are socially constructed and hence, people are also determining this structure[15].

In order to seize this interplay between individuals and institution, the paper focuses on two projects of regional cooperation: the circumpolar biodiversity monitoring programme (CBMP) within the Arctic Council, and the Kolarctic Salmon project led by the working group on Nature protection and water issues of the BEAC. These projects were chosen for their core objectives to produce scientific knowledge meant for policy-makers to improve current regulations on resources management or environmental protection. They also enable the comparison between two models of regionalism: intergovernmental (Arctic Council) and interregional fora (BEAC). Two interviews have been done to complete the analysis with individuals' perspective on institution: Tom Christensen, co-chair of the CBMP in the Arctic Council and Tiia Kalske, project coordinator of the Kolarctic Salmon project. They more specifically contribute to better understand the role of scientists in the EU Arctic diplomacy.

Therefore, the paper explores to what extent the EU is reinforcing its normative power and actorness through the tools of regional cooperation and science diplomacy, leading to the development of an EU regionalism diplomacy. The first chapter provides a conceptual framework and key definitions. They will serve in the analysis of the Arctic governance and regional cooperation in the second chapter. The third chapter explores more precisely the opportunities and limits of the EU's actorness within the Arctic regime and focuses on the deployment of a regionalism diplomacy.

[12] *Op. Cit.* Bretherton and Vogler, 2006.
[13] *Ibid.* 17.
[14] *Ibid.*
[15] *Op. Cit.* Bretherton and Vogler, 2006.

I. Conceptual framework

Before going further in the analysis, several key concepts will guide us in our understanding of the scientific cooperation in the Arctic and its use by the EU as a political and strategic leverage in the region.

A. Regional cooperation and Regionalism

The notion of region refers to a cluster of states sharing the same space where they are interacting and perceiving common interests to cooperate[16]. Regional cooperation can, thus, be defined as the gathering of actors to coordinate actions or projects in a region. In our study case, the cooperation will be studied with regard to state interests but also at the level of non-state actors like the scientists, or namely in this paper the epistemic community. This dual-level approach will help us to understand how these two actors are intertwined and interacting while contributing to cooperation.

In the Arctic region, cooperation was engaged in the areas of environment and research. Indeed, the cooperation between Arctic States is framed by their need to hold reliable data and information on climate change for policy-making and international negotiations. Another concern, more related to the BEAC framework, was the need to ensure a peaceful and stable area with Russia[17].

These elements demonstrate the variety of drivers leading to regional cooperation. These drivers rely on a complex relationship between actors' interests and preferences that are bargained in the cooperation. In this sense, cooperation is in constant evolution as a function of the change in the political landscape of each individual actor who brings its own preferences, shared beliefs and interests to shape the form of cooperation[18]. In these negotiations actors have to conform and adjust to each other expectations to engage the cooperation, increasing their interdependence[19]. Hence, international cooperation establishes a set of rules and norms that ensures actors a form of security and stability compared to unilateral action[20]. Therefore, cooperation is also a process whereby actors agree on common rules and procedures to coordinate policies or projects and foster the convergence of their self-interests, as shown by the formation of the Arctic Council and the BEAC.

[16] FAWCETT Louise, Exploring Regional Domains: A Comparative History of Regionalisms, International Affairs, Vol. 80, No. 3, pp. 429-446, 2004.
[17] Käkönen, Jyrki and Heininen, Lassi, *The New North of Europe: perspectives on the Northern Dimension*, Tampere Peace Research Institute, No. 80, 1998.
[18] KEOHANE O., Robert, *After hegemony: cooperation and discord in the world political economy*, Part II, Princeton University Press, 1984.
[19] *Ibid.*
[20] *Ibid.*

The BEAC is an interesting case for questioning the process of regionalisation and the concept of regionalism. As described by Louise Fawcett, regionalisation depicts "the "*concentration of activity at a regional level*"[21]. It is the process whereby some policy areas are transferred from the international or national level to the regional level. The Barents Euro-Arctic Council intertwined with the BEAR is made of two governance levels: intergovernmental and interregional. This aspect can strongly be related to the notion of regionalism defined as a policy or a project led by states and non-states actors that consists of cooperating within a region in order to meet common goals in certain policy areas[22]. Louise Fawcett distinguishes two regionalism tracks: soft regionalism and hard regionalism. The former reflects the promotion of a regional awareness or community and the latter describes the structuring of regional groups and networks whose relations are framed by interstate arrangements[23]. The Arctic Council and the BEAC seem to follow both tracks, and we will discuss further this aspect in the paper. Both regionalism and regionalisation contribute to enhance regional integration as a process whereby regional actors deepen the connectedness of relations networks in certain policy areas.

Several drivers for regional integration and regionalisation can be highlighted such as contacts among elites, symbols of identity, cross-border exchanges, ideas, institutions and core states[24]. Both the Arctic Council and the BEAC are tailored to promote cross-border exchanges that are mainly displayed in the integration of civil servants and senior officials as experts in their working groups[25]. These exchanges largely contribute to the process of region-building, that is to say, to the deepening of connections between actors constituted as networks[26]. The driver of ideas is very important in studying how scientific cooperation becomes a tool to meet strategic and political objectives. It refers to the thinking sustaining regionalism that is endorsed by intellectuals, state leaders or civil servants[27]. Framed with the concept of epistemic communities, this driver emphasises the role of scientists in promoting regional cooperation in the Arctic and deepening regional integration, especially in the BEAR. Institutions will be crucial as both organisations rely on different levels of governance and thus, to international, national and regional institutions whose interplay drives the direction of regional integration. The driver of core states relates to the role of hegemons like the United-States that constitute leadership in such regional organisations[28]. Regional integration will be understood in two ways in our analysis. Firstly, it will describe the EU's project to deepen coordination and establish cross-border regions. This will be significant when analysing its actorness in the region. Secondly, regional integration also

[21] *Op. Cit.* Fawcett, 2004.
[22] *Ibid.*
[23] *Ibid.*
[24] Fawcett, Louise, "Drivers of Regional Integration: Historical and Comparative Perspectives", in Brennan, Louis and Murray, Philomena, *Drivers of European Integration and Regionalism in Europe and Asia: Comparative Perspectives,* Milton Park, Taylor and Francis, 2015, pp. 34-51.
[25] *Op. Cit.* Koivurova *et al.* 2009.
[26] *Op. Cit.* Honneland and Stokke, 2007.
[27] *Op. Cit.* Fawcett, 2015.
[28] *Ibid.*

describes the process whereby regional actors proceed to regionalisation and hence deepen the connectedness of relations networks between actors in certain policy areas. This would support the diffusion of actors' preferences and foster actors' capacity to shape other's interests.

B. Science diplomacy & epistemic community

For both the Arctic Council and the BEAC, the scientific community played a key role in the advancement of regional cooperation putting the concept of epistemic community at the core of the analysis[29]. Indeed, the Kuhmo Summer Academy involving researchers from various fields represents the first steps of the Northern Dimension aiming to include specific issues known by Northern Europe[30]. When Gorbachev addressed its willingness to enhance cooperation with Western states in the Arctic in 1987, the scientific community seized the opportunity to promote international cooperation with the motives to gain better access to resources[31]. This impetus led to the creation of the Arctic Council.

Since then, science is at the core of cooperation mechanisms in the Arctic stepping up science diplomacy as a fundamental tool for states to exert their power. Science diplomacy refers to the use of scientific cooperation to answer common issues among various actors establishing international regimes based on knowledge or expertise[32]. Thus, science diplomacy belongs to a set of diverse soft power tools[33]. It is deployed in three ways:

- Diplomacy for science: policy-makers facilitate scientific cooperation ;
- Science in diplomacy: scientists support foreign policy objectives ;
- Science for diplomacy: science is used to improve state relations[34].

This typology underlines the interplay between institutional actors and epistemic community, underpinning science diplomacy. An epistemic community is a concept specifically developed to portray the constitution of an expert knowledge-based community in various areas to influence policy-making. Peter Haas defined it as "*a network of professionals with recognised expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain*"[35]. Four components characterise an epistemic community:

[29] *Op. Cit.* Käkönen and Heininen, 1998.
[30] Tikkanen, Veikko, "Europe of Citizens: a realistic alternative or a Utopia? Amphitheatre as a Metaphor of the Kuhmo case", in Käkönen, Jyrki and Heininen, Lassi, *The New North of Europe: perspectives on the Northern Dimension*, Tampere Peace Research Institute, No. 80, 1998, pp. 95-112.
[31] Honneland, Geir and Schram Stokke, Olav, "International cooperation and Arctic governance: regime effectiveness and northern region building", Routledge, 2007.
[32] Koppelman, Ben; Day, Natalie; Davidson, Neil; Eliott, Tracey and Wilsdon, James, "New Frontiers in Science Diplomacy: Navigating the changing balance of power", Royal Society's Science Policy Centre, 2010.
[33] Van Langenhove, Luk and Boers, Elke, "Science Diplomacy in search of a purpose in the populist era", Policy Brief, United Nations University Institute on comparative regional integration studies, Issue 4, March 2018.
[34] *Op. Cit.* Van Langenhove, 2017.
[35] Haas, M., Peter, *"Introduction: epistemic communities and international policy coordination"*, International organization, vol. 46, no.1, 1992.

shared normative beliefs, shared causal beliefs, shared notions of validity and a common policy enterprise[36]. Shaped by this, members of an epistemic community are able to influence policy-making as they become advisor thanks to the recognition of their knowledge expertise. In this context, knowledge and information are seen as a dimension of power able to engage new patterns of state interests and political choices[37]. The internal cohesion and the share normative commitment[38] of the groups are essential to the epistemic community to diffuse this information and persuade[39]. In these circumstances, the influence of the epistemic community over political actors should not be overstated in the analysis as it integrates a competitive sector[40]. As a group, they also need to strengthen their capabilities in the market of influence to transform the knowledge into power through their bureaucratic power[41]. Thus, the concept of epistemic community translates the interplay between science and policy in such a way that we release from a statist approach of regional cooperation and policy-making in the Arctic. Scientific cooperation, especially in areas such as polar research, is deeply influenced by the episteme[42], defined as a *"shared worldview that derives from their mutual socialisation and shared knowledge*"[43]. Indeed, the history of polar research community reveals this group developed a strong common identity based on solidarity, and the rhetoric of neutrality and rationality of science[44].

When looking into the EU Arctic Policy, it will be essential to delineate the level of willingness of the EU to use science as a diplomatic tool in the Arctic. Willingness is the first criteria, complemented by acceptance and capacity, developed by Luk Van Langenhove to study science diplomacy policies. Willingness refers to the fact actors are eager to use science for diplomatic goals, which is translated into strategies and foreign policies[45]. It is highly related to the acceptance, which is about the perceptions of science diplomacy from other actors such as the scientific community[46]. Then, capacity is about resources and tools actors can rely on to mobilise science in foreign policies[47].

Several motives for using science diplomacy interlinkage with these criteria, especially attraction and access. They are both essential for an entity to compete in the scientific cooperation arena because they give prestige and recognition of expertise. Attracting foreign talents or obtaining access to foreign research resources can be good indicators of these criteria. The EU's degree of attraction and access in scientific cooperation might influence

[36] *Ibid.*
[37] *Ibid.*
[38] Bloodgood, Elizabeth, "Epistemic communities, norms and knowledge", *Paper prepared for presentation at the International studies association annual conference,* San Francisco, CA, 2008.
[39] *Op. Cit.* Cross, 2013.
[40] *Ibid.* 8.
[41] *Op. Cit.* Haas, 1992.
[42] *Op. Cit.* Jouvenet, 2016.
[43] *Op. Cit.* Cross, 2013.
[44] *Op. Cit.* Jouvenet, 2016.
[45] *Op Cit.* Van Langenhove, 2017.
[46] *Ibid.*
[47] *Ibid.*

its capacity to influence others' preferences and behaviours. Attraction and access are highly influenced by both the capacity of the EU to mobilise science, mainly through the allocation of resources, and the acceptance[48]. Indeed, the scientific community might be more or less keen to accept science diplomacy and thus, to shape management decisions and the form of cooperation in accordance with the EU's foreign policy objectives[49]. Therefore, it will be essential to question the willingness and acceptance of scientists in contributing and participating in science diplomacy. The interviews of the two project managers from the CBMP and the Kolarctic Salmon project will contribute to this analysis.

All these concepts, from regional cooperation to science diplomacy and epistemic community will serve to seize how the EU is exerting its actorness in the Arctic region. They all are tools of influence and power enabling the EU to more or less increase its actorness in the region and with regards to Arctic States.

C. Actorness

In our study, actorness will refer to the concept as defined by Charlotte Bretherton and John Vogler. A fundamental step in defining this concept is to understand the notion of actor. According to these researchers, an actor is autonomous in defining its strategic goals and making decisions, as well as for their implementation[50]. For our analysis, it will help us to determine the EU's capacity to shape other actors' preferences and actions in the Arctic region in accordance with its own strategic interest. As a result, actorness will be defined as the capacity of an actor to exert influence on others in the context of an international regime and cooperation.

Three major criteria are deployed by the authors to determine the actorness of an entity:

- Opportunity: the set of external factors that enables or constraints the action like external events;
- Presence: the actor's ability to exert influence beyond its border such as the normative power;
- Capability: the whole policy instruments that are available combined with the capacity to use them[51]. Such criteria will be intertwined with the criteria of capacity used for science diplomacy in our study.

[48] *Ibid.*
[49] *Ibid.*
[50] *Op. Cit.* Bretherton and Vogler, 2006.
[51] *Ibid.*

They were applied in combination with the criteria relative to science diplomacy, especially in the analysis of the interviews. This combination contributes to grasp the perception of the EU by local actors involved in the investigated projects. Charlotte Bretherton and John Vogler particularly enhance the importance of perception, and "*shared understandings*" of a policy environment in which actors evolve[52]. This perception from external actors is, for the authors, a fundamental aspect for determining the actorness of an entity like the EU. In their analysis, they adopt a constructivist approach, which aim to grasp the EU's position as a global actor, by considering the relations between perceptions shaping a shared understanding of a given international regime and structures[53]. These criteria are also the main analytical grid of the EU's Arctic policy enabling to analyse its bargaining power through the leverage of scientific cooperation. Indeed, actorness is also about determining a degree of autonomy and influence capacity[54].

This conceptual framework gives us the fundamental analytical grid to guide the analysis of the EU's involvement in regional scientific cooperation in the Arctic. The interplay between actors, and their perceptions, within institutions settled for regional cooperation will be essential in our understanding of the relations between the EU's actorness in the Arctic and regional scientific cooperation. The following section specifies the institutional framework of the Arctic governance and elaborates on the EU Arctic policy.

II. Finding a chair for the EU: the state of the Arctic governance and regional cooperation

A. Comparing the Arctic Council framework with the Barents Euro Arctic cooperation

1. The Arctic Council: soft law and science-based policy making

The Artic Council was formally established as an intergovernmental forum by the Ottawa declaration in 1996, which settles scientific knowledge-based policy, environmental protection and soft law as cornerstone of the Arctic regime.

It is composed by the 8 Arctic States, as founding member states, and indigenous peoples' organisations as permanent participants. An observer status exists allowing non-arctic states, regional organisations or non-governmental organisations to take part in meetings,

[52] *Ibid.*
[53] *Ibid.*
[54] *Ibid.*

working groups and propose projects[55]. Working groups are a major aspect of the Arctic states' cooperation and cover five areas as shown by the figure 1.

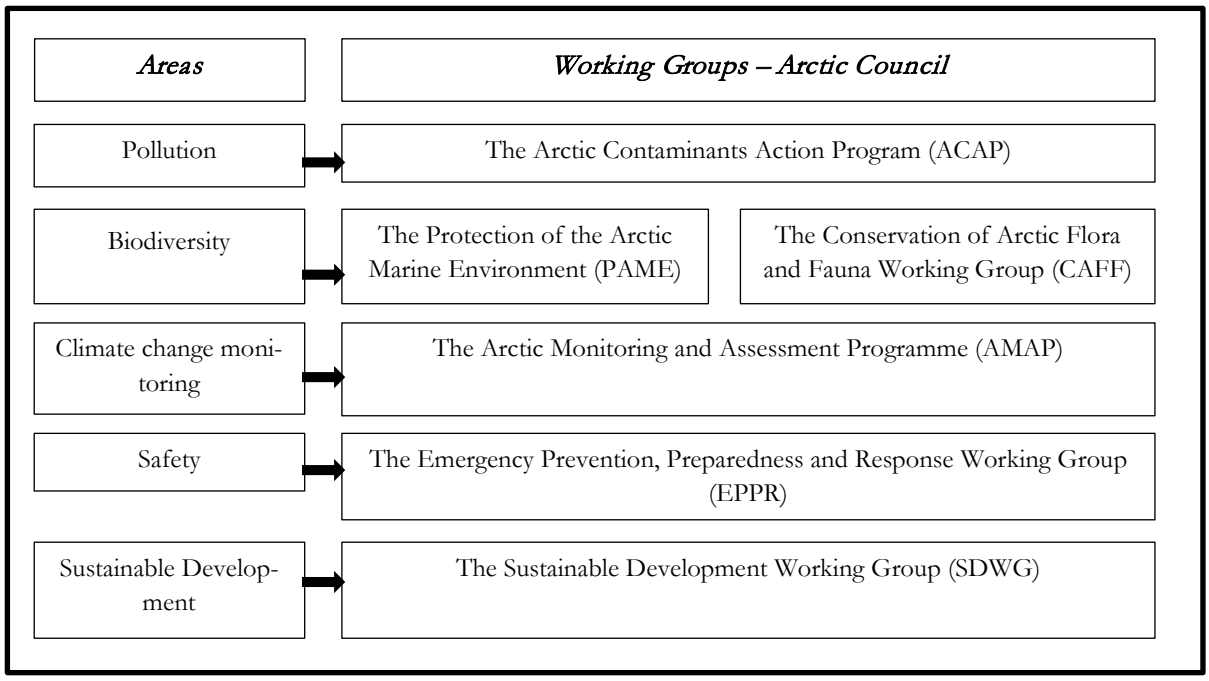

Figure 1: working groups in the Arctic Council related to thematic areas
Sources: https://arctic-council.org/about/working-groups/

These working groups are part of the governance structuring the cooperation among the Arctic States in the region. Within the Arctic Council, they are composed of scientists and representatives of governmental agencies or sectoral ministries, who are considered as experts on Arctic issues. They produce reports about key issues, mainly focusing on monitoring the impact of human activities on climate and assessing the environmental situation in the Arctic. In this forum, a clear link between scientific inputs and policy outputs is established supporting the statements made in the core agreements founding the Arctic regime[56]. Such aspects underline a high level of willingness to use science diplomacy, while the Arctic Council appears as an instrument to mobilise science demonstrating a significant level of capacity from the Arctic States.

However, even if working groups can formulate recommendations based on their scientific projects' outcomes, member states are not legally bound to follow them. In this framework, cooperation is mainly driven by soft law[57], which ensures enough flexibility to the Arctic

[55] The Arctic Council, "Observers", URL: https://www.arctic-council.org/index.php/en/about-us/arctic-council/observers (consulted on 03/12/2019).
[56] *Op. Cit.* AEPS, 1991.
[57] Koivurova, Timo; Keskitalo, E. Carina H.; Bankes, Nigel, *Climate governance in the Arctic*, Environment and Policy, Vol. 50, Springer, 2009.

states to cooperate[58]. It is only since 2011 that three legally binding agreements were negotiated within the Arctic Council[59]: the agreement on cooperation on aeronautical and maritime search and rescue in the Arctic (2011), the agreement on cooperation on Marine Oil Pollution preparedness and response in the Arctic (2013) and the agreement on enhancing international arctic scientific cooperation (2017)[60]. Apart from regional agreements between Arctic States, cooperation is also framed by international regimes: the UN Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity and the UN Convention on the Law of the Sea (UNCLOS)[61]. This regime illustrates that soft law can be a test to determine states' willingness to deepen the cooperation or policies towards harder law[62]. These agreements, and international regime rules epitomise the role science can play in facilitating states relations (science for diplomacy).

The role of the Arctic States in the Arctic Council is predominant as decisions are taken by consensus during bi-annual ministerial meetings[63]. The chairmanship rotates among the Arctic States every two years[64]. Whereas the process of regionalisation implies a delegation of authority to regional institutions, the cooperation in the Arctic Council is limited by national sovereignty and authority. The Arctic Council does not have a common budget provided by the member states which limits its autonomy[65]. Besides, the Secretariat established in 2011 does not have the function to implement specific projects, but to manage the daily organisation of meetings and outreach activities[66]. Hence, it does not have any authority to implement policy recommendations proposed by the working groups[67]. This step only depends on member states' willingness to consider the information provided by the working groups[68].

The Circumpolar Biodiversity Monitoring Programme (CBMP) is part of the CAFF working group, which mandate is to assess the state of the Arctic Biodiversity to improve management techniques[69]. The mandate reflects the role of science in the Arctic regime. Indeed, this knowledge decision-making is expected to provide tools and management techniques

[58] KAUFMANN Sven G., L'océan arctique et la coopération intergouvernementale non contraignante. Un défi pour la protection internationale de l'environnement, *Revue juridique de l'environnement*, Vol. 35, no.4, pp. 627-641, 2010. URL: https://www.cairn.info/revue-revue-juridique-de-lenvironnement-2010-4-page-627.htm (consulted on 09.11.2018).
[59] KOIVUROVA Timo, The Arctic Council: a testing ground for new international environmental governance, *The Brown Journal of World Affairs*, vol. 6, no. 1, 2012, p. 134.
[60] The Arctic Council, "About us", URL: https://www.arctic-council.org/index.php/en/about-us (consulted on 04.28.2019).
[61] *Op. Cit.* Koivurova, 2012, 136.
[62] *Ibid.*
[63] HONNELAND Geir and SCHRAM STOKKE Olav, International cooperation and Arctic governance: regime effectiveness and northern region building, Routledge, 2007.
[64] *Ibid.*
[65] *Ibid.*
[66] The Arctic Council, "The Arctic Council Secretariat", URL: https://www.arctic-council.org/index.php/en/about-us/arctic-council/the-arctic-council-secretariat (consulted on 05.02.2019).
[67] The Arctic Council, "About us", URL: https://www.arctic-council.org/index.php/en/about-us (consulted on 04.28.2019).
[68] *Op. Cit.* Honneland and Stokke, 2007.
[69] The Arctic Council, "Conservation of Arctic Flora and Fauna (CAFF), URL: https://arctic-council.org/index.php/en/about-us/working-groups/caff (consulted on 04.23.2019).

able to ensure both conservation and regional growth. The CBMP is thus one of the operation tool developed by the CAFF to accomplish its mandate[70], which reflects the specialism the Arctic Council granted on monitoring climate change[71].

2. The Barents Euro-Arctic cooperation, an EU-led regional cooperation

The BEAC was established in 1993 by the Kirkenes declaration following an initiative from Norway to address security issues and economic development in the Barents region[72]. During the Cold War, the region was the stage of a significant militarisation as it constitutes the closest border between the United-States and Russia[73]. At the EU level, the end of the Cold War drew the hope to deepen cooperation, especially with the accession of Finland and Sweden to the EU in 1995 that established a common border with Russia[74].

The BEAC involves Norway, Denmark, Iceland, Finland, Sweden, Russia and the EU[75]. Like in the Arctic Council, the organisation relies on working groups gathering scientists, civil servants and representatives of Indigenous peoples (Figure 2).

[70] The Conservation of Arctic Flora and Fauna working group, "The Circumpolar Biodiversity Monitoring Porgramme: About", URL: https://www.caff.is/monitoring (consulted on 11.25.2018).
[71] *Op. Cit.* Honneland and Stokke, 2007.
[72] *Op. Cit.* Koivurova *et al.* 2009, 25.
[73] BERZYNA Kristine, *Why the Arctic matters for the rest of Europe, in Spruds, Andris and Rostoks, Toms (eds.),* "Perceptions and strategies of Arcticness in sub-arctic Europe", Latvian Institute of International Affairs, 2014.
[74] *Op. Cit.* Honneland and Stokke, 2007.
[75] The Barents Euro-Arctic Cooperation, "The Barents Region". URL: https://www.barentscooperation.org/en/About/Learn-More/Barents-region (consulted on 04/22/2019).

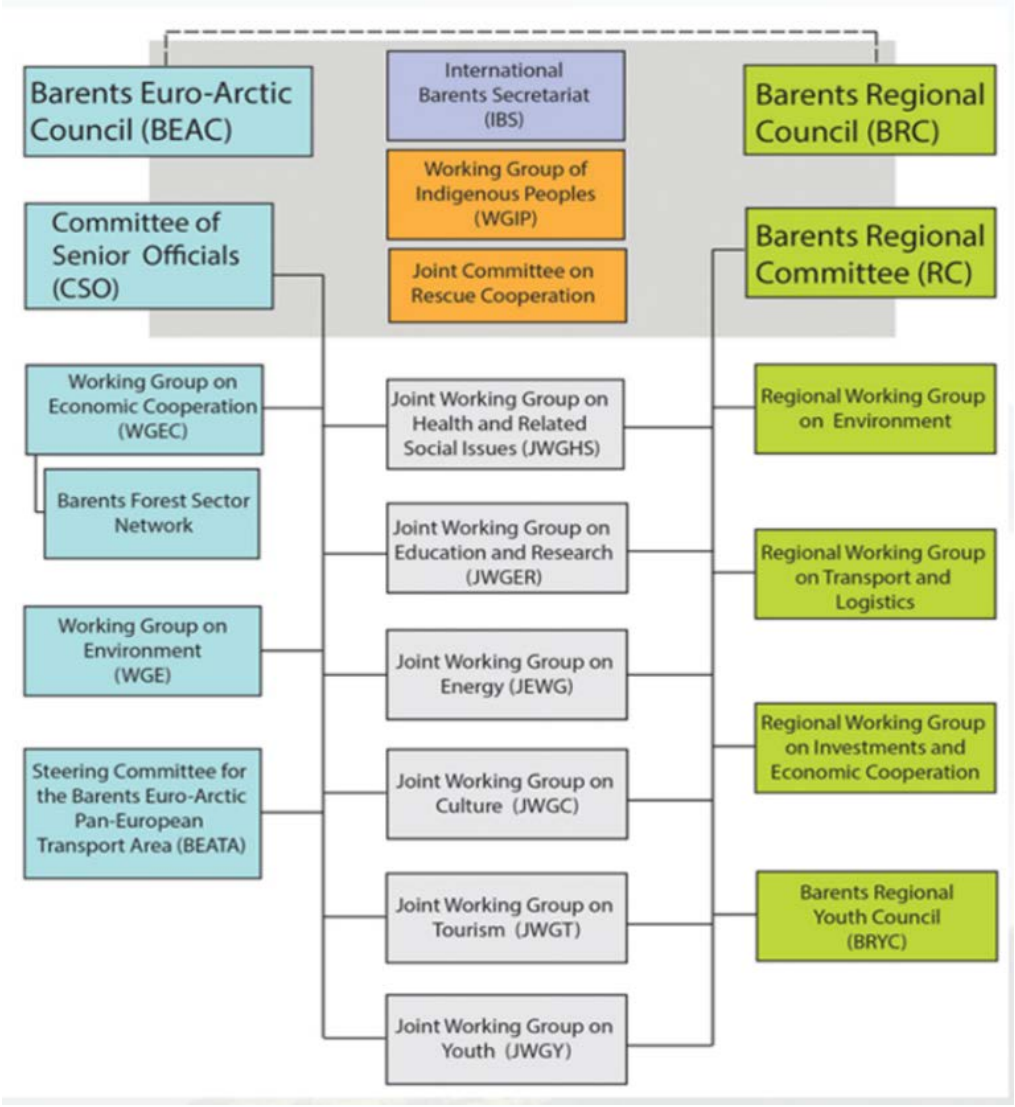

Figure 2: Organisational Chart of the Barents Euro-Arctic Region.
Sources: https://www.barentscooperation.org/en/About/Organisational-chart#

Two levels of cooperation are intertwined within its governance structure: intergovernmental (the Barents Euro-Arctic Council) and interregional cooperation (the Barents Euro-Arctic Region - BEAR). The first one gathers representatives of governments and is composed by a Committee of Senior Officials (CSO) in order to manage daily contacts between meetings[76]. This council meets at the Foreign Ministry level and is the most comparable governance level to the Arctic Council's functioning[77]. In terms of budget, it operates similarly to the Arctic Council with a secretariat's budget made of individual contributions of countries[78]. State programmes and projects shall also be led outside the secretariat budget[79].

[76] *Op. Cit.* Honneland and Stokke, 2007.
[77] *Ibid.*
[78] Agreement on the establishment of an international Barents Secretariat for the cooperation in the Barents Euro-Arctic Region, Finland, Norway, Russia, and Sweden, 15th November 2007, Rovaniemi, Finland, Article 5.
[79] Terms of reference of the International Barents Secretariat for the Cooperation in the Barents Euro-Arctic Region, 2007, article 7.

However, the European Commission is a permanent and regular member to this council while it only has an *ad hoc* observer status in the Arctic Council, which limits its participation on a case-by-case basis[80]. Nordic States, Russia, Iceland and Denmark are involved as permanent members in both organisations, Canada and the United-States are observers to the BEAC. The second level gathers counties and indigenous peoples in a regional council[81].

The diversity of working groups demonstrates a wide range of cooperation areas : commerce, industry, environment, infrastructure, culture, tourism, science and technology[82]. Moreover, this dual governance reinforces the policy coordination between the strategic level where political guidance is given and the regional level of countries where implementation is driven. In the Arctic Council, each state decides individually to implement recommendations providing by the working groups into their national policies or by international cooperation[83].

Associated with the Northern Dimension, the BEAC can benefit from EU financial instruments for capacity-building directed to the neighbourhood policy and cohesion policy such as Interreg, the Framework Programme, Horizon 2020, and Horizon Europe under the budget for 2021-2027[84]. The inclusion of the EU since the start of the BEAC while none of the states involved were EU member states[85], unveils the recognition of the EU's capabilities and expertise to manage trans-boundaries issues[86]. This should also be set in the context of the EU enlargement towards the Nordic States in the 1990s[87]. The enhancement of this cooperation partly aimed to heighten EU relations with the Arctic States, and especially with Russia, positioning Finland as a mediator in this relation[88].

The Kolarctic Salmon Project was led from 2011 to 2013 under the subgroup on Nature and Water which pertains to the BEAC working group on Environment[89]. The area covered by the project corresponds to Northern Norway, Finland, North-West Russia and the White Sea[90]. As for the CBMP, this project specifically aims to foster knowledge-based policy decisions. Indeed, the Kolarctic Salmon project gathered scientists, local fishermen, commercial actors, and authorities to monitor the Salmon stocks in the region and their

[80] THIEFFRY Alison, *L'Union européenne, un nouvel acteur arctique? Stratégie, intérêts et défis émergents,* Mémoire, sous la direction de Frédéric Lasserre, Université de Laval, Québec, Canada, 2016.
[81] *Op.Cit.* Honneland and Stokke, 2007.
[82] *Ibid.*
[83] The Arctic Council, "About us", URL: https://www.arctic-council.org/index.php/en/about-us (consulted on 04.28.2019)
[84] *Op. Cit.* Honneland and Stokke, 2007.
[85] MYRJORD Anne, Governance beyond the Union: EU boundaries in the Barents Euro-Arctic Region, *European Foreign Affairs Review*, No. 8, pp. 239-257, 2003.
[86] *Op. Cit.* Honneland and Stokke, 2007.
[87] *Ibid.*
[88] LOUATI, Claudia, La politique de la dimension septentrionale: variations autour du voisinage, Nouvelle Europe, 2011. URL : http://www.nouvelle-europe.eu/la-politique-de-la-dimension-septentrionale-variations-autour-duvoisinage (consulted on 03.30.2019).
[89] The Barents Euro-Arctic Council, "Working group on nature protection and water issues", URL: https://www.barentscooperation.org/en/Working-Groups/BEAC-Working-Groups/Environment/Nature-Protection-and-Water-Issues (consulted on 10/28/2018).
[90] Kolarctic Salmon Project, "Kolarctic Salmon 2011-2013", URL: https://prosjekt.fylkesmannen.no/Kolarcticsalmon/ (consulted on 10/28/2018).

migrations patterns[91]. Hence, both the Kolarctic Salmon projects and the CBMP are comparable to each other with regard to the formation of an epistemic community and impact on the EU's actorness in the region. Indeed, the Kolarctic Salmon project reflects the use of science diplomacy by the EU as one of the funding partners through the European neighbourhood partnership instrument (ENPI) and the European Regional Development Fund (ERDF)[92]. The 2007-2013 budget of this programme reached €70.48 million including €28.24 million directly from the EU[93].

An insight in the evolution of the EU Arctic policy will provide us a more comprehensive understanding of the EU's strategic goals in the region and its relations with the Artic States. It will also enable us to compare the EU's capabilities with the Arctic States' ones in scientific cooperation, which constitutes a first step in the analysis of the EU's actorness in the Arctic regime.

B. Facing the Arctic geopolitics : the wandering of the EU Arctic policy

1. From 1st EU's steps in the Artic regime to today

After joining the EU in 1995, Finland and Sweden with Denmark fostered the EU involvement in the Arctic. The EU perceived the Arctic region as a periphery and answered Nordic states' demands with the Northern Dimension and its implication in the BEAC[94]. This impetus resulted in the elaboration of a specific EU Arctic Policy in 2008. Since then, the EU relies on the territorial presence of these Member States in the Arctic to build its regional legitimacy. Besides, the EU acts upon the legal basis of competencies in a lot of domains related to Arctic Affairs: maritime law, environment, human rights, economic development, cohesion policy, scientific research (Art. 3, 4, 6 – TFEU)[95]. They are either exclusive or shared competencies with member states[96]. The management of Arctic affairs is mainly driven by the Directorate General on Maritime Affairs (DG MARE) and the European External Action Service (EEAS). The article 34 of the TEU states *"Member States shall coordinate their action in international organisations and at international conferences. They shall uphold the Union's positions in such forums"*[97]. Denmark, Finland and Sweden are permanent members in the Arctic Council and several other EU member states are observers (France, United-Kingdom, Germany, Italy, Poland, Spain, the Netherlands). While they should support the EU's positions, ensuring the cohesion of the European foreign policy in the Arctic

[91] *Ibid.*
[92] European Commission, "Developing a European Union Policy towards the Arctic region: progress since 2008 and next steps", JOIN/2012/0019, Brussels, 2012.
[93] *Ibid.*
[94] KÄKÖNEN Jyrki, Local Dimension and Regionalisation: The Northern Peripheries, in Käkönen, Jyrki and Heininen, Lassi, "*The New North of Europe: perspectives on the Northern Dimension*", Tampere Peace Research Institute, No. 80, 1998.
[95] *Op. Cit.* Thieffry, 2016.
[96] Consolidated version of the Treaty on the Functioning of the European Union (TFEU), Articles 3, 4 and 6, OJ C 326, 26.10.2012.
[97] Treaty on European Union (TEU) [2007], OJC306/01, Article 34.

governance is a major challenge for the EU, and can hamper its ability to integrate the Arctic regime. Despite Arctic governance is structured by international cooperation, national competition remains a constant between the states involved[98].

The year 2008 marks a turning point in the political will of the EU to handle Arctic Affairs with the communication: *"The European Union and the Arctic Region"*[99], followed by several updates in 2012 and 2016, and more recently in 2021. Three main objectives span these communications:

- Contributing to cooperation and dialogue "to keep the Arctic safe and stable" by addressing "emerging security challenges"
- Addressing the ecological transition
- "supporting the inclusive and sustainable development of the Arctic regions to the benefit of its inhabitants"[100]

Being committed to the environmental protection of the Arctic is a question of accountability and legitimacy with regard to the ambitious commitments the EU has taken within the climate regime[101]. Then, resources such as energy sources, raw materials and fishery stocks are of major interest for the EU. The EU buys almost "*87% of the liquefied natural gas (LNG) produced in the Russian Arctic*"[102]. Moreover, the EU imported 24% of fish products from Norway in 2014[103]. The third objective refers to the access to the Arctic Council to defend its strategic interests by diffusing its own ideas and norms, especially on the issue of resources. The main concern relates to the opening of new commercial roads that could shorten the time length of the merchant fleets[104], but also enlarge fishery areas. Indeed, 90% of EU's trade is carried out at sea[105] and the EU controls 45% of the global commercial navigation flows[106]. It is estimated that "*over 15% of vessels above 300 tonnes gross weight traversing the Arctic waters"* are related to the EU[107]. The EU is caught in the middle of the conflict between Canada and Russia about sovereignty on these straits casting doubt upon their international status authorising transit[108].The growing presence of actors like China also puts significant pressure on the EU's actorness in the region.

[98] PELAUDEIX Cecile and RODON Thierry, The European Union Arctic policy and national interests of France and Germany: internal and external policy coherence at stake?, *The Northern Review*, No. 37, pp. 57-85, 2013.
[99] *Op. Cit.* Thieffry, 2016.
[100] Joint communication from the European Commission on a stronger EU engagement for a peaceful, sustainable and prosperous Arctic, JOIN(2021) 27, 13.10.2021.
[101] *Op. Cit.* Thieffry, 2016.
[102] *Op. Cit.* Koivurova, 2021.
[103] *Op. Cit.* JOIN/2016/021, 3.
[104] *Op. Cit.* Lasserre, 2014.
[105] *Op. Cit.* JOIN/2012/0019, 4.
[106] *Op. Cit.* Thieffry, 2016. 66.
[107] *Op. Cit* Koivurova, 2021.
[108] *Op. Cit.* Lasserre, 2014.

The third objective arouses the most important negative impact on the EU's actorness in the region[109]. The EU applied to the observer status in the Arctic Council[110]. However, the assertions in the 2008 communication that *"there is no specific treaty regime for the Arctic*" [111] and *"no country or group of countries have sovereignty over the North Pole or the Arctic Ocean around it"*[112], went against current cooperation rules in the region[113]. As detailed previously, the Arctic Council governance relies on the recognition of sovereignty and soft law to further the cooperation. It has been later explicitly asserted that candidates have to *"recognise Arctic States' sovereignty, sovereign rights and jurisdiction in the Arctic"* to obtain the observer status[114]. The advocacy of the establishment of maritime protected areas and the proposal from the European Parliament to establish a treaty for the protection of the Arctic on the model of the Antarctic Treaty were seen as further threats to the pre-existing Arctic regime[115]. Indeed, the Antarctic Treaty System has *"set a precedent for how soft power of science can help to strike a balance between national and common interests"*[116] by establishing it as a scientific, peaceful and environmental sanctuary where no mineral exploitation activities are authorised[117]. Nevertheless, Timo Koivurova underlines that the Arctic is an inhabited space where sovereignty claims pre-exist while the Antarctic is uninhabited and represents less economic opportunities allowing states to renounce easier to sovereignty claims under the pressure of an epistemic community[118]. The tension underpinning the Arctic paradox with the potential economic development and opportunities that could arouse makes the establishment of such a treaty very difficult[119]. Besides, the EU's ban on seal products led to a diplomatic conflict with Canada revealing a misunderstanding of Indigenous traditions, which respect is part of the Arctic regime[120]. Other geopolitical issues like the economic sanctions against Russia following the annexation of Crimea also contributed to deteriorate the EU's chances to obtain the observer status in the Arctic Council[121].

The section on research, monitoring and assessments sheds light upon a willingness to use science in policy-making. However, it is rather directed towards internal policy-making than

[109] *Op. Cit.* Thieffry, 2016.

[110] Communication from the European Commission: *The European Union and the Arctic Region*, COM/2008/0763, Brussels, 2008.

[111] *Ibid.* 10.

[112] *Ibid.* 10.

[113] *Op. Cit.* Thieffry, 2016.

[114] The Arctic Council, "Observers", URL: https://www.arctic-council.org/index.php/en/about-us/arctic-council/observers (consulted on 03/12/2019).

[115] DEGEORGES Damien, L'Arctique : une région d'avenir pour l'Union européenne et l'économie mondiale, Fondation Robert Schuman, 2013. URL: https://www.robert-schuman.eu/fr/questions-d-europe/0263-l-arctique-une-region-d-avenir-pour-lunion-europeenne-et-l-economie-mondiale (consulted on 10.20.2018).

[116] *Op. Cit.* Koppelman et al. 2010.

[117] Schram Stokke, Olav and Vidas, Davor, Governing the Antarctic: the effectiveness and legitimacy of the Antarctic Treaty System, Cambridge University Press, 1996.

[118] *Op. Cit.* Koivurova, 2012, 132.

[119] *Op. Cit.* Lasserre, 2014.

[120] *Op. Cit.* Thieffry, 2016.

[121] MAYET Laurent, "EU sets new course for the Arctic", Robert Schuman Foundation, *European Issues*, No. 614, 23 November 2021, available here: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiCyPbllbT1AVXgv0IHHaXiCZkQFnoECAQQAQ&url=https%3A%2F%2Fwww.robert-schuman.eu%2Fen%2Fdoc%2Fquestions-d-europe%2Fqe-614-en.pdf&usg=AOvVaw0YDFg5_U9769M4UNTGehBx.

for enhancing international cooperation with non-EU member states: *"develop enhanced, broad international information exchange on research projects and facilitate coordination of national programmes*"[122]. This gives an example of diplomacy for science in concrete terms. The whole set of propositions introduced in this communication aims to enhance the EU's capabilities in the region by increasing its knowledge and developing its expertise on assessment of climate change, which is the specialism of the Arctic Council[123].

The EU's ambitions about the Arctic governance and regime were perceived as a threat by other actors and led to the refusal of its candidacy to the observer status. Moreover, the proposition from the European Parliament showed to other strategic actors the fragmentation of the EU foreign policy reinforced by the scepticism of its own member states[124]. Therefore, the EU failed to shape actors' preferences and interests in accordance with what it advocates unveiling a limited actorness despite the significant potential of its capabilities in terms of research funds, knowledge-sharing and cooperation.

The following EU statements on the Arctic policy are the outcome of a learning process. The EU adjusted and conformed to the current norms and rules of cooperation to grant recognition for its interests within this area of cooperation[125]. The Joint communication on the Arctic policy published in 2012 epitomises this process. The discourse is more neutral towards the current system the Arctic States established[126]. Indeed, it recognises *"the Arctic Council to be the primary forum for international cooperation in the region"* [127] and that Arctic states are playing *"a primary role*"[128]. The knowledge-based policy is reaffirmed stating that "*policy-relevant results will be sought in order to inform economic and political decision-making"*[129]. The political willingness to use science in and for diplomacy seems more important than in 2008 since it specifically aims to *"step up cooperation with Arctic partners*" and to *"seek broad cooperation*" with other actors than EU members[130]. The importance of the EU capabilities in scientific research and cooperation, whether it is to assess climate change or support sustainable development, allows blending strategic interests in a more altruistic discourse. It tends to show all the means and resources the EU can provide to the Arctic research, blurring its strategic interests. This position seems to have resulted in a better perception of the EU as an Arctic actor as its candidacy as an observer was almost accepted ("*receive[d] […] affirmatively*"[131]) at the Kiruna Ministerial meeting in 2013. Nevertheless, this approval was conditional to the resolution of "*the concerns of Council members*"[132]. Currently, no final decision has been adopted

[122] *Op. Cit.* COM/2008/0763, 7.
[123] *Op. Cit.* Honneland and Stokke, 2007.
[124] *Op. Cit.* Thieffry, 2016.
[125] *Op. Cit.* Berzyna, 2014.
[126] *Op. Cit.* Pelaudeix,2013.
[127] *Op. Cit.* JOIN/2012/0019.
[128] *Ibid.*
[129] *Ibid.* 6.
[130] *Ibid.* 7.
[131] *Op.Cit* Kiruna Declaration, the eighth ministerial meeting of the Arctic Council, 15th May 2013.
[132] *Ibid.*

on the EU status, while the EU renewed its application to the observer status in its 2021 EU Arctic Policy[133].

In 2016, the joint communication on *"an integrated European Union policy for the Arctic*" pursues this logic and aims to reinforce the structure of this policy. Recently, the European Commission published a new EU Arctic policy in the framework of the Green Deal, entitled: "*a stronger EU engagement for a peaceful, sustainable and prosperous Arctic*"[134]. The Green Deal is an opportunity for the EU to strengthen its legitimacy in the Arctic regime on the ground of its leadership in the climate regime. This aspect is underlined in the communication and intertwined with the need for the EU to be recognised as pertaining to the Arctic territories: "*the EU's role as legislator for part of the European Arctic must also be taken into account"*[135]. The EU is becoming more assertive in its legitimacy to act within the Arctic region, which is particularly highlighted by the first words of this communication: "*The European Union is in the Arctic*."[136]. In all the communication, the European Commission insists upon its legislative agenda, relating to both internal and external affairs as it refers to the Fit for 55 Package and several international agreements and cooperation to negotiate and implement[137]. This aims to show the scope of the EU's action for regional development in the Arctic, but also tends to demonstrate the Arctic is becoming a part of the EU internal policies. Such aspects have been enhanced in the Arctic Council framework through an observer statements made by the EU at the 12th Ministerial Meeting in May 2021[138]. The updated EU Arctic Policy maintains the three core objectives of sustainable development, resources, and multilateralism[139]. Across the updates of this policy, the EU demonstrates growing ambitions and willingness to act as a mediator in the Arctic regime. Indeed, the EU introduces itself as a geopolitical power, even a "*geopolitical necessity*"[140] after considering the need for cooperation to meet the challenges faced by the Arctic. Thus, regional cooperation is put at the core of the EU strategy for the Arctic[141]. It applies to science and innovation, which still appear as a basis for cooperation and policy-making, but also highlights cooperation in areas such as security that becomes a priority for the EU.

2. The tools of scientific cooperation in the Artic region

Several aspects can be analysed as part of the Arctic States' capabilities. The agreement on enhancing international scientific cooperation signed in 2017 pertains to the three legally binding agreements the Arctic States negotiated in the Arctic Council. It is the outcome of

[133] *Op.Cit.* JOIN(2021) 27.
[134] *Ibid.*
[135] *Ibid.*
[136] *Ibid.*
[137] *Ibid.*
[138] Statement by the European Union on its contribution to the work of the Arctic Council, 12th Ministerial Meeting of the Arctic Council, Reykjavik, 20 May 2021.
[139] *Op.Cit.* JOIN(2021) 27. 3.
[140] *Ibid. 2.*
[141] *Ibid.*

the work produced by the task force for enhancing cooperation in the Arctic (2013-2017) who analysed the barriers for scientific cooperation in the region. Scientific cooperation can take place under various terms in the Arctic regime:

- The work within the working groups. Scientists and civil servants are appointed by their states to these functions. They mainly lead activities about monitoring climate change and arctic biodiversity.

- Cooperation through scientific research centres such as the Norwegian Polar Institute, the University of the Arctic (UArctic), the National Science Foundation or the IASC. It is mission-based projects and states are involved on a case-by-case basis through funding.

The major driver for scientific cooperation in polar research is the sharing of resources and information, encompassing access to research centres and infrastructures[142]. However, procedural aspects such as visa and permit vary the costs of research cooperation[143]. Therefore, this agreement aims to facilitate cross-border exchanges in the scientific domain by reducing the procedural aspects via common rules and definition of scientific activities, or intellectual property rights[144]. It is a great example of science diplomacy intertwining the role of policy-makers in facilitating scientific cooperation and the role of the epistemic community in advocating for international cooperation[145].

As part of their capabilities, the Arctic States have at their disposal a significant network of scientific organisations, governmental and non-governmental, that are specialised in Polar Research. For instance, the United-States created the Arctic Research Commission and the National Science Foundation to coordinate polar research, make policy recommendations and integrate the broader Arctic network[146]. Moreover, science diplomacy is a long tradition in the United-States[147]. Scientists and policy-makers regularly interact in various framework such as the Jefferson Science Fellowship programme allowing scientists to work on Foreign affairs issues as counsellors[148]. This strong willingness and operational tools to practice science diplomacy gives this country a strong degree of actorness in the region. In parallel, the 2019 budget proposal of the federal government of Canada enhances a deep willingness to strengthen its capabilities and presence in the Arctic regime, but more specifically to region-building. The budget plans to dedicate $14 million over five years to the Canadian

[142] *Op. Cit.* Jouvenet, 2016.
[143] European Commission, Arctic Scientific Cooperation Agreement enters into force – purpose to enhance practical research cooperation, 05.23.2018, URL: https://ec.europa.eu/epale/en/content/arctic-scientific-cooperation-agreement-enters-force-purpose-enhance-practical-research (consulted on 04.24.2019).
[144] *Agreement on enhancing international arctic scientific cooperation*, 2017, Arctic Council.
[145] BERKMAN Paul Arthur; KULLERUD Lars; POPE Allen; VYLEGZHANIN Alexander N. and YOUNG Oran R., The Arctic Science Agreement propels science diplomacy, *Science*, Vol. 358, Nov. 2017. URL: DOI: 10.1126/science.aaq0890.
[146] United States Arctic Research Commission, "About", URL: https://www.arctic.gov/about_usarc.html (consulted on 04.26.2019).
[147] *Op. cit.* Langenhove, 2017, 26.
[148] *Ibid.*

Space Agency and $10 million over two years to support the work of the Polar Continental Self Programme assisting Canadian researchers[149]. On the contrary, Russia seems rather involved in raw material diplomacy as it increases its drilling sites along the coast and partnerships with foreign energy companies like Total (France) and Statoil (Norway)[150]. Investments mainly rely on private sources and are dedicated to military infrastructures setting research aside allocation of resources[151]. This outlook towards the capabilities of these three Arctic States unveils the fragmentation of their operational tools for science diplomacy. As a group within the Arctic Council, the Arctic States seem rather homogenous and able to deploy a strong level of actorness in the region as they agree on common rules, exclude or include actors like the EU or China. However, the functioning of the governance within the Arctic Council also shows they rather tend to operate independently from each other. They cooperate on a case-by-case basis, and not as a group of actors, which is illustrated by the fact, they do not act as a negotiating group within Conference of Parties (COP)[152].

The EU's capabilities mainly rely on operational tools for scientific research and sustainable development. Several funding instruments have been or are mobilised by the EU for Arctic scientific and regional cooperation: Horizon 2020, Horizon Europe, the Framework Programme, the ENPI, the Kolarctic Programme, the Northern Periphery and Arctic Programme (NPA). The European Regional Development Fund (ERDF), the European Social Fund, or the European Maritime and Fisheries funds also play a key role in this EU external policy[153]. In the Work Programme for 2021 of Horizon Europe, several calls consider polar aspects, through dedicated calls, or in relation to other activities[154]. Under Horizon 2020, over €200 million were dedicated by the EU to Arctic research[155]. This figure should be combined with amount of €1 billion spent by the EU for regional development and cross-border cooperation in the region[156]. However, this accumulation of funding instruments also reveals the difficulty of the EU to elaborate a structured policy for this region in which various policy areas are intertwined[157].

In terms of infrastructures, the EU enhances its space activities, particularly with the programmes Copernicus and Galileo. They allow the EU to position itself as an infrastructure

[149] BARNES Justin, "Canada's 2019 Federal budget and the Arctic", *Polar Connection*, 03.27.2019, URL: http://polarconnection.org/canada-2019-federal-budget-arctic/ (consulted on 04.20.2019).
[150] JACOB Léo-Paul, "Keys to understanding Russia's Arctic Policy", NATO Association of Canada, 05.09.2017, URL: http://natoassociation.ca/keys-to-understanding-russias-arctic-policy/ (consulted on 04.20.2019).
[151] STAALESEN Atle, Little cash for Russia's new Arctic development program, *The Barents Observer*, 08.31.2017, URL: https://thebarentsobserver.com/en/arctic/2017/08/zero-cash-russias-new-arctic-development-program (consulted on 04.20.2019).
[152] UNFCCC, "Party Grouping", available at : https://unfccc.int/process-and-meetings/parties-non-party-stakeholders/parties/party-groupings.
[153] European External Action Service, "Arctic Funding", available at: https://eeas.europa.eu/headquarters/headquarters-homepage/100774/arctic-funding_en.
[154] European Commission, *Work programme 2021-2022, food, bioeconomy, natural resources, agriculture and environment*, European Commission Decision C(2021)9128 of 15 December 2021, p. 357.
[155] *Op.Cit* Koivurova 2021.
[156] *Ibid.*
[157] Commission des affaires européennes du Sénat, « Union européenne et Arctique : pour une politique ambitieuse et étoffée », Rapport d'information n°499 (2016-2017), Avril 2017, URL : http://www.senat.fr/rap/r16-499/r16-499_mono.html (consulted on 11.16.2018).

provider for climate change monitoring and as an expert in satellite shipping and maritime safety[158]. The EU can also rely on member states' infrastructures as shown by the various European research stations present in the Arctic[159]. France and Germany are among the non-Arctic countries who have a long tradition and involvement in polar research. The Institute Paul Emile Victor and the Alfred Wegener Institute can constitute strong relays for the EU. This explains why the first steps of the EU Arctic policy outlined so much the reinforcement of the EU's capabilities, which is delivered by strengthening the coordination of scientific activities. The EU-Polar Net, a cluster of European research institutions that provides strategic science policy advice, intends to meet this challenge[160]. This structure will be renewed for the period 2020-2023[161].

In terms of expertise, ocean governance, shipping and maritime safety are considered as a field of expertise of the EU for ship-building, satellite navigation, rescue, and port infrastructure[162]. Cross-border cooperation and region-building also appear as key EU's expertise fields through the investment programmes and the notion of Euro-Arctic Region[163]. Nevertheless, new actors like China invest massively in polar research challenging the EU's presence and capabilities[164]. Even though, the EU Arctic policy aims to enhance the coordination of EU member states' policies to increase its capacity to attract polar research and to access infrastructure, the internal and external cohesion of EU policies is questioned by its own member states' strategic interests. The EU's degree of attraction and access in scientific cooperation contribute to determine its capacity to influence others' preferences and behaviours[165]. Indeed, the scientific community will be more or less keen to accept science diplomacy as a function of the benefits it can trigger from such interplay. Thus, the EU's capacity to shape management decisions and the form of cooperation via science diplomacy in accordance with its foreign policy objectives will be uneven. The following section will further analyse the window of opportunities provided by scientific cooperation to the EU.

[158] *Op. Cit.* JOIN/2012/0019.
[159] European Polar Board, list of European research stations in the Arctic, the European Polar Board. Available at: https://www.european-polarboard.org/infrastructure/ (consulted on 17.10.2021).
[160] EU-Polar Net, "About", URL : https://www.eu-polarnet.eu/about-eu-polarnet/ (consulted on 05.05.2019).
[161] *Op.Cit.* JOIN 2021/27 final.
[162] *Op. Cit.* JOIN/2012/0019.
[163] *Op. Cit.* JOIN/2016/021.
[164] CORNET Alexandre, *De la route polaire de la soie au Rimland arctique : cas d'étude des enjeux des nouvelles routes de la soie pour l'Union européenne*, Institut de Relations Internationales et Stratégiques, Octobre 2018.
[165] *Op. Cit.* Van Langenhove, 2017.

III. Fostering the EU's actorness in the Arctic regime: the scientific cooperation as a window of opportunities

A. Opportunity to strengthen the EU's capabilities

1. Granting knowledge : information as a capability

Regarding the place of science in the Arctic regime, research cooperation is considered as a ticket to a seat in the Arctic Council[166]. Thus, even more strategic actors used scientific cooperation to obtain a regular and official chair in this regional forum as an observer[167]. This section will question the EU's capacity and willingness to mobilise science to achieve its foreign policy objectives in the Arctic. Indeed, the importance of the EU's capacity in scientific cooperation opens a window of opportunities to foster its actorness.

In the Arctic regime, science offers the EU the opportunity to develop its internal knowledge and understanding of the region. Following the 2008 communication, the EU was blamed for its misunderstanding, even ignorance of Arctic affairs[168]. The questioning of current Arctic governance is one of the most salient signs of this knowledge gap despite the experience that Norway, Finland, Denmark and Sweden could convey in this process. Knowledge and information sharing span the three main communications related to the EU Arctic Policy. The 2008 communication even proposes the creation of an EU Arctic information centre[169]. Information can be defined as *"concrete pieces of evidence which can be fit within a larger ideational framework in order to make a rational decision between alternative courses of action or policies"*[170]. Thereby, information is a powerful tool to shape decisions and others' preferences. Between 2008 and 2012, the European approach to information and scientific knowledge evolves suggesting the EU manages to position its level of expertise in the Arctic research fields. Indeed, the first communication enhances the need to develop the EU's Arctic capabilities referring to its cooperation tools, especially in science. One of the objectives is to *"Create new research infrastructures and enhance monitoring and surveillance capabilities"*[171]. In 2012 and 2016, the communications shed more light upon the development of EU operational tools and capabilities and, are thus more oriented to external cooperation[172]. In 2021, such tools for cooperation continues to have a significant place in the EU Arctic Policy, especially in relation with the development of regional networks as explained in the following section. The EU's operational tools and capabilities related to information are

[166] *Op. Cit.* Degeorges, 2013.
[167] *Ibid.*
[168] *Op. Cit.* Thieffry, 2016.
[169] *Op. Cit.* COM/2008/0763, Brussels, 2008.
[170] *Op. Cit.* Bloodgood, 2008.
[171] *Op. Cit.* COM/2008/0763, 7.
[172] *Op. Cit.* JOIN/2012/0019, 7.

more oriented towards the reinforcement of "strategic foresight"[173] on security issues. These challenges are understood as being "environmental, economic and political-military elements"[174]. It notably refers to the resilience of the Arctic Region towards climate change.

The shift in the 2012 communication should be linked with the communication on "*Enhancing and focusing EU international cooperation in research and innovation: A strategic approach*"[175]. It expresses the EU political willingness to use science diplomacy. This willingness is rather implicit in the EU Arctic policy but is salient through the allocation of resources to scientific projects such as the Kolarctic Salmon project and the use of Horizon 2020 as a funding opportunity for the BEAR[176]. More recently, this translates into the decision to focus the Atlantic and Arctic basin lighthouse on the "restoration of marine and coastal ecosystems and increased climate resilience" under the Mission Restore our Ocean and Waters of Horizon Europe[177].Such focus can be related to the political objective of promoting maritime protected areas under the EU Arctic Policy[178]. The project manager of the Kolarctic Salmon project, Tiia Kalske, stressed the lack of knowledge of political authorities in the migration patterns of salmon in the Barents Sea: *"There also were some regulatory aspects – management authorities have scares information on migratory patterns and amounts of the different salmon stocks migration and caught along the vast project area"*[179]. Besides, the main goal of the project: *"Merging modern science with traditional knowledge to improve the future management of the Atlantic salmon in the Barents region"*[180] relates to this use of science as a political tool to obtain information that will be transformed into expertise for policy-making. Moreover, the EU equips itself with the means to translate scientific knowledge into strategic advice with structures like the EU-Polar Net. In the 2021 communication, the EU also underlines the role of the EU Satellite Centre (SatCen) and Galileo in providing operational security services in the Arctic thanks to geospatial data, that is to say through information[181]. In these circumstances, information becomes an operational tool contributing to shaping decisions. For instance, thanks to the information obtained through the Kolarctic Salmon project, the EU can grant more legitimacy to promote maritime protected areas and high environmental standards that are part of its objectives and interests. This information can also serve to guide more operational or practical needs such as maritime safety, as delivered by the EU spatial tools, and underlined in the 2021 communication.

[173] *Op.Cit.* JOIN(2021) 27.
[174] Ibid.
[175] European Commission, "Enhancing and focusing EU international cooperation in research and innovation: a strategic approach", COM/2012/0497, Brussels, 2012.
[176] The Barents Euro-Arctic Council, The Barents Programme: 2014-2018, June 2013, URL: https://www.barentscooperation.org/en/About/Contacts/Search/Documents (consulted on 02.18.2019).
[177] European Commission, "Work Programme Horizon Europe 2021-2022: Missions", Decision C(2021)9128 of 15 December 2021, p. 79.
[178] *Op.Cit.* JOIN(2021) 27.
[179] Interview 1 with Ms. Tiia Kalske, Project Manager, Kolarctic Salmon Project 2011-2013, 01.25.2019 - Accessible upon request to the author.
[180] Kolarctic Salmon Project, "Kolarctic Salmon 2011-2013", URL: https://prosjekt.fylkesmannen.no/Kolarcticsalmon/ (consulted on 10/28/2018).
[181] *Op.Cit.* JOIN(2021) 27.

Environmental protection is one of the strategic interests the EU defends with regard to its strong commitment to the international climate regime. In this sense, it promotes scientific cooperation, especially knowledge-sharing to increase its actorness in the climate regime arena. Monitoring and assessment are scientific activities identified as priorities in 2012 in the section "*Harnessing information*". In this context, the Commission proposed to "*implement […] a strategic assessment of the impact of development in the Arctic*"[182]. The EU Arctic footprint assessment that followed comes within this scope. In 2016, the communication enhanced that monitoring activities remained a priority and that its spatial infrastructures could further the knowledge on this matter[183]. In this regard, the EU intends to contribute to the specialism of the Arctic Council in climate assessment. This is directly linked to the EU's ambition to obtain the official observer status in this forum. Within the 2021 communication, one can note the EU establishes stronger bonds between the information granted on and in climate science with security aspects. The aim is not only to reinforce the capabilities, but to use it, and deploy the measures that result from climate science findings. This is particularly highlighted by the willingness to reinforce strategic foresights and the cooperation on civil protection.

Consequently, scientific cooperation in the Arctic contributes to the enhancement of the EU's expertise in climate change and environmental protection. This constitutes a major capability to broaden the EU's legitimacy within the climate change regime as it acted for the Arctic States. Indeed, Timo Koivurova describes science as a "*reality-builder*", that allowed constituting the Arctic States as a fully-fledged entity within the climate regime[184]. Information is thus a powerful capability on the international stage and in the region in itself. However, Charlotte Bretherton and John Vogler remind that "*while opportunity may be discursively constructed, the process of construction cannot be divorced from material conditions*"[185]. Developing a thick regional network able to provide relays for policy goals is essential to reach a significant level of expertise.

2. Deepening regional networks to obtain new relay

Actorness and science diplomacy partly rely on the capacity of an actor to mobilise others, whether they are states or non-states actors, around its own interests and preferences[186]. The BEAC gives the EU the framework to proceed to this mobilisation of local actors in a broad range of domains, including research, innovation and technology. The Northern Dimension and the EU funds that are deployed for the functioning of this cooperation contribute to this network densification and they constitute both strategic and operational tools

[182] *Op. Cit.* JOIN/2012/0019, 7.
[183] *Op. Cit.* JOIN/2016/021, 6.
[184] *Op. Cit,* Koivurova, 2012.
[185] *Op. Cit.* Bretherton and Vogler, 2006, 26.
[186] *Op. Cit.* Koppelman *et al.* 2010, 8.

for science diplomacy. In parallel, Morgan Jouvenet underlines the logistic capabilities of an actor in polar research can be a discriminatory criterion as they determine the inclusion or exclusion of actors from the Arctic cooperation[187]. Ensuring its access to infrastructures, but also the support of key organisations and local actors that could become EU's promoters is thus decisive to the EU's actorness.

The EU's access to the Arctic Council networks and infrastructures is relatively limited by its *ad hoc* observer status and more broadly by Arctic States' perception of the EU as an external actor. Meanwhile, this regional forum provides the most significant regional network in the Arctic. Indeed, it gathers specialised organisations, especially scientific organisations, as well as experts in the Arctic research, either included in the working groups or as observers. It ensures the Arctic States easy access to material conditions that they are committed to sharing in the framework of the cooperation. This logic was reinforced with the agreement on enhancing scientific cooperation signed in 2017. Thanks to this network, Arctic states ensure their access to infrastructures and information, which strengthens their capacity to shape the Arctic regime and build the regional identity according to their interests and norms in the international arena. As for the EU, the 2008 communication showed its need to structure its networks relying on member states' capabilities who were already active in polar research[188]. The BEAC allows the EU to develop its own network of infrastructures through such structuring. It "*demonstrates a political willingness as well as financial ability to contribute to the work"* of the Arctic Council Members, which is a requirement to obtain the official status of observer in the Arctic Council[189]. The EU observer statement at the Arctic Council ministerial meeting in 2021 specifically aims to demonstrate such contribution to Arctic affairs, and focus on scientific contributions[190]. Thus, science represents *"useful networks and channels of communication that can be used to support wider policy goals*"[191]. This use of science is particularly salient in the deployment of EU funds such as Horizon 2020 (now Horizon Europe) in Northern Europe.

The Kolarctic Salmon project comes within the scope of cross-border cooperation that spans all EU funding tools. The EU intends to gather local actors around projects it finances, reinforcing its capacity to mobilise science and other actors around its political objectives in Northern Europe. In this sense, programmes such as Interreg *"created various circles of regional initiatives relevant to the BEAR*"[192]. The European Polar Board and the EU-Polar Net who act as facilitators of European national resources and infrastructures for the EU

[187] *Op. Cit.* Jouvenet, 2016.
[188] *Op. Cit.* COM/2008/0763, 7.
[189] The Arctic Council, "Observers", URL: https://www.arctic-council.org/index.php/en/about-us/arctic-council/observers (consulted on 03/12/2019).
[190] *Op. Cit.* Statement by the EU, 12th Ministerial Meeting of the Arctic Council, 2021.
[191] *Op. Cit.* Koppelman et al. 2010.
[192] *Op. Cit.* Myrjord, 2003, 15.

also contribute to ensure the internal cohesion of operational tools[193]. Indeed, the participants include a broad range of European research centres like the *Centre National de la Recherche Scientifique* (CNRS), the World Ocean Council or the Austrian Polar Research Institute (APRI)[194]. In addition, the Arctic monitoring and assessments programme secretariat (AMAP), which is part of the Arctic Council is a participant of this cooperation. Then, partnerships are also established with organisations linked with Arctic States and working closely in the Arctic Council: the IASC, the National Science Foundation or the Canadian Polar Commission[195]. Such cooperation demonstrates the EU's willingness to use science for diplomacy to improve its relations with Arctic states, but also a significant level of attraction and capacity to mobilise various actors around its strategic goals and beyond, the European regions. This willingness is particularly high in the 2021 update of the EU Arctic policy with the statement underlining "*the EU has built strong international networks on Arctic research as a diplomatic tool*"[196]. This statement is supported by the report on the *"Overview of EU actions in the Arctic and their impact"* published in June 2021 ahead of the new EU Arctic Policy[197]. The report underlines "*EU-Polar Net 2 is the world's largest consortium of expertise and infrastructure for polar research*"[198].

The Arctic Stakeholder forum, launched by the EU in 2016 to consult national and regional authorities of the European Arctic is another demonstration of the EU's willingness to build a deep regional network[199]. It gathered mainly ambassadors including a representative of the Saami Council but follows a consultation process of the diverse local authorities of Northern Europe[200]. The inclusion of local communities also translates within the financed projects as shown by the case of the Kolarctic Salmon project. Indeed, the inclusion of traditional knowledge, especially from local fishermen, was a major component of the project. The project manager insisted on this in a significant way: *"Fishermen have know-how and knowledge that were unique and not just useful for the project, it was a prerequisite to be able to implement the projects*"[201]. Whereas it has been accused not to acknowledge indigenous peoples' traditions in its policy, the EU responds by reinforcing its capabilities to support their activities and include them in the policy-making by forging a network through the EU-led projects. The representative of the Saami Council stresses the fact they can bring a network to the EU during the forum, underlining the importance this group has in terms of regional actorness[202]. It follows the path of the Arctic Council with this regard. In the development

[193] *Op. Cit.* EU-Polar Net.
[194] *Ibid.*
[195] *Ibid.*
[196] *Op.Cit.* JOIN 2021/27 final, p.4.
[197] *Op. Cit* Koivurova, 2021.
[198] *Ibid.*
[199] European External Action Service (EEAS), "Arctic Stakeholder Forum", 01.22.2018, URL: https://eeas.europa.eu/arctic-policy/eu-arctic-policy/38565/arctic-stakeholder-forum_en (consulted on 02.15.2019).
[200] *Ibid.*
[201] *Op. Cit.* Interview 1.
[202] EEAS, "Streaming of Arctic Stakeholder Forum", 01.19.2018, URL: https://webcast.ec.europa.eu/arctic-stakeholder-forum-meeting# (consulted on 02.15.2019).

of the ACIA, indigenous organisations managed to be recognised as relevant experts and to include their traditional scientific knowledge in this assessment[203]. This process is the outcome of a growing and more formal implication of indigenous peoples in the Arctic Council.

Therefore, the European scientific cooperation in the Arctic led through the deployment of its financial instruments allows building a regional network around the EU's political objectives. Initiatives such as the Arctic Stakeholder forum aim to include local actors in the strategic level of decision-making. By this means, the EU is trying to ensure itself strong relays in the Arctic region. It reinforces its actorness in terms of capabilities by granting access to resources such as infrastructures, and also the support of local actors. The knowledge granted through this regional network enables the EU to produce evidence-based policy, gain expertise and legitimacy to promote its vision and strategic interests both at the regional and the international levels on environmental issues. Thus, science represents an opportunity to sustain the EU's presence in the Arctic regime.

B. Opportunity to strengthen EU's presence

1. The discursive neutrality of science

Presence is another criterion of actorness and refers to the ability of an actor to diffuse its set of norms, rules, principles and ideas beyond its borders. It corresponds to the normative power of an organisation. In the Arctic, the first steps of the EU Arctic policy hampered significantly the EU's presence by conveying distrust among the Arctic states.

As the initiators of the concept of science diplomacy enhanced, *"sciences provide a non-ideological environment for the participation and free exchange of ideas between people, regardless of cultural, national or religious backgrounds"*[204]. This argument underlines the extent to which this form of diplomacy relies on the discursive neutrality of science. Ruled by values of rationality, transparency, selflessness, organised scepticism and universality, science is endowed with a mediation power when transposed into the diplomatic and policy fields[205].

Indeed, science developed a rhetoric of distance and impartiality through its epistemology based on the primacy of evidence and knowledge. Combined with rationality and transparency, science is seen as an answer to uncertainty and ignorance regarding various issues like

[203] NILSSON Annika, Chapter 4: A changing Arctic climate: science and policy in the Arctic Climate Impact Assessment, in Koivurova, Timo; Keskitalo, E. Carina H.; Bankes, Nigel, "*Climate governance in the Arctic, Environment and Policy*", Vol. 50, Springer, 2009.
[204] *Op. Cit.* Koppelman *et al.,* 2010.
[205] *Ibid.*

climate change[206]. The growing importance of these more complex issues required to reconsider the relations between science and policy leading to the development of evidence-based policy[207]. In this context, Petersen frames a set of values associated with the ethos of scientific advisers that illustrates the rhetoric of distance, rationality and neutrality. Neutrality is here understood as a synonym of impartiality that underlines its diplomatic dimension while the latter refers to the methodological dimension held by science. Four main values are encompassed within Petersen's typology:

- Explicit reflection on uncertainty and values ;
- Methodological and public reliability, both being linked with the concept of transparency as they are dealing with identifying strengths and weaknesses of methods and the public confidence in scientists ;
- Extended peer review that conveys the inclusion of a broader expert community in the evaluation of scientific assessments ;
- Acknowledgement of social complexity[208].

They all come within the scope of the episteme or worldview. Rationality, impartiality and transparency underpinning science are the main reasons leading to the idea that it could improve governance and, even states relations in diplomacy[209]. Besides, the scientists from the Ice Core Science in Antarctica and the Arctic often refer to the international solidarity aroused by the harsh working conditions erasing cultural differences[210]. The role of epistemic communities in the emergence of the regional cooperation in the Arctic[211] and the establishment of the Antarctic Treaty Systems demonstrated the role of science in fostering international cooperation[212]. Besides, the rhetoric of neutrality can be intertwined with the principle of soft law that rules the Arctic regime. Soft law implies countries are not obliged to follow rules but are politically committed in doing so. In this sense, soft law provides an environment devoid of legally binding positions that proceed step-by-step towards the emergence of harder law. Thus, non-legally binding positions act as a neutral form of political commitments in international regimes. The interviews assess the existence of this rhetoric of distance within the epistemic community at the Arctic Council and BEAC scales when political questions on the EU Arctic policy are asked: *"I don't think I have any view on that. I don't think it is for me to have an opinion on that*"[213] or *"This is a political question, I don't think*

[206] PETERSEN Arthur C., The ethos of scientific advice: a pragmatist approach to uncertainty and ignorance in science and public policy, in de Regt, Henk and Chunglin, Kwa (eds.), "*Building Bridges: connecting science, technology and philosophy*" – Essays presented to Hans Radder, Amsterdam, VU University Press, 2014, pp. 53-62.
[207] *Ibid.*
[208] *Ibid.*
[209] PARKHURST Justin, The Politics of evidence: From evidence-based policy to the good governance of evidence, Routledge, 2017.
[210] *Op. Cit.* Jouvenet, 2016.
[211] *Op. Cit.* Nilsson, 2009.
[212] *Op. Cit.* Stokke et al., 1996.
[213] Interview 2 with Mr. Tom Christensen, Co-chair of the CBMP, Arctic Council, 02.21.2019 - Accessible upon request to the author.

anything about it. (The interviewee is a bit surprised by the question). I think we provide good knowledge to the regulatory authorities in all three countries"[214]. The reluctance of these two scientists towards these questions reveal their need to step back towards their role of "*pure scientists*"[215] or "*science arbiter*"[216]. The former relates to the fact the actor is not interested in the consequences and the use of his research. In this regard, both scientists seem ambivalent as they answer they do not know to what extent their results are used while specifying their role of advisers, namely science arbiter[217]. This can be understood as a form of reserve as civil servants but also as the outcome of their scientific socialisation. These aspects unveil the scepticism of scientists towards science diplomacy and the idea that scientific cooperation is linked to political objectives[218].

Such scepticism can be partly explained by the risk for evidence to be misused in politics[219]. Indeed, the political and scientific levels speak different languages and their interplay in science diplomacy requires adaptation from both sides[220]. Scientific cooperation projects, within the CBMP and the BEAC, produce specific documents for their respective national authorities[221]. Moreover, meetings between project managers or chairs and policy-makers are opportunities to deliver knowledge and information[222]. This corresponds to the role of scientific adviser they have to "*provide serviceable truths*"[223]. It refers to the translation of scientific works into recommendation aiming to solve problems[224]. However, governments can still be keen to present the scientific information in an alternative way, whether on purpose or by misunderstanding[225]. For instance, polar bears protection is used as a geopolitical tool by endowing scientific information and data with strategic interests[226]. Another example occurred at one of the Arctic Council ministerial meeting where the United-States rejected the joint statement on climate change questioning the relevance of scientific data that the Arctic Council gathered[227].

Whereas the rhetoric of science is endowed with the capacity to foster international cooperation by lessening the conflicts and differences, the transposition of these scientific values into the political level is not necessary grasped by scientists. It questions the emergence of

[214] *Op. Cit.* Interview 1.
[215] *Op. Cit.* Petersen, 2014.
[216] *Ibid.*
[217] *Op. Cit* Interviews 1 and 2.
[218] *Op. Cit.* Interview 2.
[219] *Op. Cit.* Parkhurst, 2017.
[220] *Op. Cit.* Koppelman et al. 2010.
[221] *Op. Cit.* Interviews 1 and 2.
[222] *Ibid.*
[223] *Op. Cit.* Petersen, 2014.
[224] *Ibid.*
[225] *Op. Cit.* Koppelman et al. 2010.
[226] BENHAMMOU Farid et MARION Rémy, Arctique : Les dessous géopolitiques de la protection de l'ours polaire, Géoconfluences, mars 2017.
[227] DARTFORD Katy, "Arctic Council: US goes cold on climate change agreement", Euronews, 05.07.2019, URL: https://www.euronews.com/2019/05/07/arctic-council-us-goes-cold-on-climate-change-agreement (consulted on 05.10.2019).

a European epistemic community able and willing to support the EU's political goals in the Arctic.

2. Relying on a European epistemic community: scientists, ambassadors against their will?

To analyse the emergence of a European epistemic community, it will be essential to focus on the development of an episteme, as well as to consider the role of science in policy making.

In the framework of scientific cooperation, especially through the EU's funds and programmes, scientists need to adjust their working norms to determine common grounds on which to lead the projects. This process is described by the project manager of the Kolarctic Salmon project as they needed to agree on common methods to ensure the comparability of samples[228]. In this regard, they developed manuals to harmonise their sampling methods and to agree on the validity criterion of the samplings[229]. Therefore, the process to agree on common methods can be seen as a common socialisation among researchers of different nationalities. This could contribute to establish an episteme. Previous studies already stressed the common identity that arose from the living conditions during field studies and that is built upon a logic of cosmopolitanism and competition[230].

Besides, their projects specifically aim to provide knowledge for policy-making. In this sense, EU funds could contribute to building a European epistemic community that would act as a relay of its foreign policy objectives (science in diplomacy and for diplomacy). This process worked in the Arctic Council as shown by the case of the treaty on banning fishery that was negotiated following the influence of the working groups[231]. It shows the Arctic Council strongly relies on its institutionalised epistemic community. However, national interests and belonging remain strong in every kind of scientific cooperation[232]. In the Arctic Council, this translates into the fact there is no common budget given by the Arctic States who are keener to implement international cooperation on a case-by-case basis. As for the EU, this translates into the difficulties to ensure the internal and external cohesion of its foreign policy positions. Indeed, the EU Arctic policy was received with scepticism by several EU member states, even Sweden and Finland who advocated for this involvement[233]. Moreover, France and Germany launched their own initiatives as non-Arctic states such as

[228] *Op. Cit.* Interview 1.
[229] Kolarctic Salmon project, "Manuals", URL: https://prosjekt.fylkesmannen.no/Kolarcticsalmon/Documents/Manuals/.
[230] *Op. Cit.* Jouvenet, 2016.
[231] *Op. Cit.* Koivurova et al. 2009, 138.
[232] *Op. Cit.* Pelaudeix, 2013.
[233] *Op. Cit.* Thieffry, 2016.

bilateral cooperation hampering the EU external policy cohesion[234]. Besides, scientists remain attached to their national institutions, especially through funding, reminding that logistic capabilities and resources determine the inclusion or exclusion of actors[235]. In the Kolarctic Salmon project, *"each partner has its own role as a function of the budget they have"*[236]. As for the CBMP, there is no specific budget granted for the working groups resulting in the fact scientists and experts are paid for their involvement by their respective national authorities[237]. Despite the rhetoric of cosmopolitanism and selflessness relating to science, the cooperation does not necessarily lessen differences and national interests and takes the form of coopetition[238].

A next step in the analysis is to consider the acceptance of an EU science diplomacy by the scientific community. Perception is key in determining the actorness, and it can be an opportunity as much as a capability. As shown in the previous section, the interviewees are careful with and reluctant to answer political questions[239]. They clearly step back from the role of science adviser, showing a low level of acceptance of the EU science diplomacy. Meanwhile, they are both involved in scientific projects aiming to support decision-making. Their interest to the political impacts of their research is low while results are presented to political authorities: *"I don't know if they are reading it in fact"*[240]. Thus, one can observe a certain ambivalence of scientists regarding their role in the policy-making that can be linked to the discursive neutrality of science.

The presence of the European epistemic community on Arctic Affairs seems more important at the strategic level than the regional one. Indeed, the political agenda setting on Arctic research and cooperation is taking place in European capitals and, especially in Brussels. Several organisations represent specifically the Arctic interests towards the European Union. The City of Oulu, the East and North Finland EU Office, the Saami Council or the Alfred-Wegener-Institute are all recorded in the EU transparency register[241]. In addition, several think tanks like the *Observatoire arctique* (France), Polar connection (London) or conferences like Arctic Frontiers (Norway) analyse the situation in the region to provide knowledge for policy-makers. The report entitled "*overview of EU actions in the Arctic and their impact*" is the outcome of a project funded by the European Union and led by the EPRD Office for Economic Policy and Regional Development. This polish consultancy firm is specialised in providing strategic advice on access to EU funds. Even though it is not in the

[234] *Op. Cit.* Pelaudeix, 2013.
[235] *Op. Cit.* Jouvenet, 2016.
[236] *Op. Cit.* Interview 1.
[237] *Op. Cit.* Interview 2.
[238] *Op. Cit.* Jouvenet, 2016.
[239] *Op. Cit.* Interviews 1 and 2.
[240] *Op. Cit.* Interview 1.
[241] European Commission, "The transparency register: research on Arctic issues", URL: http://ec.europa.eu/transparencyregister/public/consultation/searchControllerPager.do?declaration=Arctic+&search=search (consulted on 05.06.2019).

EU Transparency register, it gathers high-level scholars specialised in Arctic policies and governance in a report aiming to support the implementation of the EU Foreign policies[242].

These remarks draw the attention towards the institutionalisation of the epistemic community. Indeed, this process might hamper its autonomy and ability to play its diplomatic role within an international regime. In this case, strategic guidance given by policy-makers might heighten the framing of scientific projects priorities and thus, reduce the spectrum of scientific research that could be promoted[243]. Therefore, if the EU manages to mobilise scientists around its projects and its need for information in the policy-making, ensuring the cohesion of these local actors remains a challenge. To the same extent, making them relays of its own foreign policy objectives is not granted acknowledging the specificity of the scientific community that identified itself as first being international[244] and selflessness[245].

3. Relying on regionalism diplomacy

As discussed above, scientific cooperation enhances regional networks in the Arctic and can contribute to the formation of an epistemic community. They both constitute more or less efficient relays for foreign policy objectives and reinforce the EU's presence through the diffusion of norms and rules. Indeed, international cooperation is considered as *"promoting the acceptance and deployment of European solutions outside Europe"*[246]. In the case of the BEAC and Arctic Council, we can observe relations between regional development and scientific cooperation. Community building is part of their objectives, particularly through economic development and the willingness to settle an Arctic identity, especially by including indigenous peoples' knowledge in the projects. Besides, the dual-level governance of the BEAC (intergovernmental and interregional) reflects the political project to foster the creation of cross-border regions that span the European integration[247], especially since the development of the EU cohesion policy.

While in the Arctic Council, science acted as "*a reality-builder*"[248], the EU Arctic policy intends to deploy this use of science for building the regional identity of the "*European Arctic*"[249] or Northern Europe. In this sense, the EU does not only use science diplomacy to achieve its strategic goals but also a form of regionalism diplomacy. This diplomacy is building on the use of scientific regional cooperation to promote wider political objectives. Projects led within the BEAC particularly relate to the concept of hard regionalism by creating

[242] *Op. Cit.* Koivurova, 2021, p.1-2.
[243] *Op. Cit.* Jouvenet, 2016.
[244] *Ibid.*
[245] *Op. Cit.* Petersen, 2014.
[246] Council Decision 2013/743/EU on establishing the specific programme implementing Horizon 2020 – the Framework Programme for Research and Innovation (2014-2020), Official Journal of the European Union, L 347, 20.12.2013, p. 965-1041.
[247] *Op.Cit.* Käkönen and Heininen, 1998.
[248] *Op. Cit.* Koivurova, 2012.
[249] *Op. Cit.* JOIN 2021/27 final.

linkages with economic development in the sector of transport, education and entrepreneurship[250]. They strengthen regional networks by deepening the interdependence unveiling the process of regional integration that is engaged by the EU. Two levels of public action need to be considered in this use: the regional level and the international regime.

At the regional level, the EU's presence is reinforced through operational tools such as the Northern Dimension and the EU funding instruments[251]. The BEAC also comes within this scope and was largely influenced by the EU model of planning[252]. Indeed, the Northern Dimension acts in a similar way than the ENP: the funding instruments are similar as well as the objectives to foster economic development of the region to ensure peace and prosper area[253]. The requirements of these funds and programmes are the main relays of the EU's normative power and foreign policy objectives through the harmonisation of standards in the region, even with the non-EU member states like Norway and Russia. This role is acknowledged in 2016: *"the EU can play an influential role shaping the future development of the European part of the Arctic through the application of EU rules relevant for the EEA and the deployment of financial instruments*"[254]. Indeed, the establishment of Partnership Agreements as *ex-ante* conditionality and its implementation are as many opportunities to establish common rules such as transparency, accountability, steering and assessments[255]. In the same extent than for the scientific community, EU funds and programmes contribute to the socialisation of local actors in a broader way. The Arctic Stakeholder forum enhanced the difficulties for local actors to get information, and to conform to these standards[256]. This difficulty sheds light upon the process of building capacity and standards at this regional level. Such an ambition is particularly highlighted by the promotion of Horizon2020 as a funding opportunity which research outcomes "*could contribute to the development of Arctic standards*"[257] relying on sustainability. This is all the more salient that EU funds are also strategic tools. Political authorities, or strategic actors, set the priority areas of research programmes in accordance with their interests: environmental protection, energy efficiency, health issues, *etc.* An example of this, is the establishment of Smart Specialisation Strategies (S3) for research and innovation, which enables to identify tailored innovation needs and potential in a given region[258]. Through this process, the EU and other strategic actors frame the scope of research with political priorities. The interviewees both underline this influence of politics within research: "*Indirectly, we are. We are guided by ministries and the questions they have to us are*

[250] The Barents Euro-Arctic Cooperation, "Barents success stories", URL: https://www.barentscooperation.org/en/Barents-Regional-Council/Barents-Success-Stories (consulted on 04/22/2019).
[251] *Op. Cit.* JOIN/2016/021, 9.
[252] *Op. Cit.* Myrjord, 2003.
[253] *Op. Cit.* TEU, Article. 8.
[254] *Op. Cit.* JOIN/2016/021, 9.
[255] Regulation (EU) No 1303/2013 of the European Parliament and the Counci of 17 december 2013 on the common provisions on EU funds, Official Journal of the European Union, L 347, 20.12.2013, p. 320–469.
[256] *Op. Cit.* EEAS, 2018.
[257] *Op. Cit.* JOIN/2016/021, 10.
[258] *Op. Cit.* Koivurova 2021.

influencing"[259]. Despite these conditions, the EU's capabilities, operational tools and expertise in cooperation remain attractive to the scientific community[260]. Tom Christensen and Tiia Kalske perceive the EU as an expertise provider and a major funding partner for international cooperation: "*sometimes, we have a look upon EU research works. Also, we could make benefit of EU funding, with research programme like H2020. So we are trying to get inputs from it*"[261] and "*at the national level and in the county there is no funding for the cooperation, so the EU is also allowing to have funds for international cooperation*"[262]. Besides, the use of S3 seems to have spread across the Arctic region as Norwegian Nordland implemented some aspects of this framework[263]. Therefore, the EU seems to exert attraction both externally (Arctic Council) and internally (BEAC). The new instruments developed under the 2021-2027 EU budget, such as the Just Transition Fund, contribute to illustrate the EU's involvement in the region-building of the European Arctic. The higher budget for regional development in the Arctic (€1 billion for 2014-2020) compared to funds dedicated to Arctic research (€200 million for 2014-2020) supports this analysis[264].

Regarding the international regime, this process of norm diffusion and socialisation of the regional network through science and broader tools aims to build the identity of this area of cooperation as the European Arctic. In this sense, regionalism is not only understood as a cooperation project or policy between regional actors to meet common goals[265] but also in terms of political ideas. Indeed, Helge Hveem considers "*regionalism is the body of ideas that promote an identified geographical or social space as a regional project*"[266].

The construction of the European Arctic as a region could reinforce the EU's presence in the Arctic regime, especially because it builds the EU's legitimacy as a regional actor, which aim and could shift the perception of the EU by the Arctic States. The terms "*European Arctic*" and "*European part of the Arctic*" span the 2016 communication[267] and the last update of the EU Arctic policy[268]. Besides, the BEAR is used as a foreign policy tool to improve its relations with Russia[269]. Indeed, one of the requirements demanded for the Kolarctic ENI CBC funds is to include at least one participant from Russia and one from Sweden or Finland[270]. It has been assessed that even in period of political tensions, the EU and Russia remained committed to cooperation under the Kolarctic Programme[271]. It demonstrates

[259] *Op. Cit* Interview 2.
[260] *Op. Cit.* Honneland and Stokke, 2007.
[261] *Op. Cit.* Interview 2.
[262] *Op. Cit* Interview1.
[263] *Op. Cit.* Koivurova, 2021.
[264] *Ibid.*
[265] *Op. Cit.* Fawcett, 2004.
[266] HVEEM Helge, Explaining the Regional Phenomenon in an Era of Globalization, in Stubbs, Richard and Underhill, Gregory R. D. (eds.), Political Economy and the Changing Global Order, Oxford, Oxford University Press, pp. 70-81, 2000.
[267] *Op. Cit* JOIN/2016/021.
[268] *Op. Cit.* JOIN 2021/27 final.
[269] *Op. Cit.* Myrjord, 2003.
[270] *Op. Cit.* BEAC programme 2014-2018.
[271] *Op. Cit.* Koivurova, 2021.

both the role of science and the role of regional cooperation as facilitators of international relations.

The agreement on the ban on commercial fishing within the central part of the Ocean (2015) tends to show the regionalism diplomacy of the EU on ocean governance and in the Arctic has increased its actorness. The precautionary approach on fisheries in the Arctic is advocated by the EU since the beginning of its involvement and is translated into the promotion of maritime protected areas[272]. Thus, the EU fostered the development of ecosystem based management in this domain in the framework of its regional cooperation. Its inclusion with other strategic actors like Japan or China during 2017 negotiation tends to illustrate the fact the EU managed to be perceived as a relevant actor on these matters. This can also relate to the fact normalisation which is the establishment of high standards by the EU could be a more powerful tool to influence international norms in the Arctic[273]. By being included in these negotiations, the EU had the opportunity to advocate its strategic interests of sustainable management of resources. Regional research and other projects might have acted as a showcase of the EU's capabilities in terms of sustainable development. Even if this presence should not be overstated as the EU was included in a second phase, its regionalism diplomacy might have influenced the Arctic States' perception of the EU.

Conclusion

The comparison between the scientific cooperation in the Arctic Council and in the BEAC shows the proximity of these two governance systems in their respective use of science diplomacy. The operational tools the EU is deploying in the BEAC have a great potential to increase its actorness in the Arctic regime dominated by the Arctic Council, and highly competitive between strategic actors. These tools seem to exert a strong attraction among local actors and contribute to the construction of a regional network on which the EU could rely on to support its foreign policy objectives. In this regard, scientific cooperation appears as the main tool for the EU to support these objectives requiring to grant reliable knowledge to build legitimacy through expertise. It allows the EU to seize opportunities, develop its capabilities and increase its presence in the region. Indeed, through scientific projects the EU finances, it seems to manage to diffuse its norms in Northern Europe while constructing a regional identity, namely the European Arctic. Besides, the interplay between science and policy frames research priorities, especially through the EU's instruments for scientific cooperation, in accordance with these foreign policy objectives: sustainable use of natural resources, environmental protection, and international cooperation. In addition, objectives of economic development of Northern Europe, within the BEAC, come under

[272] *Op. Cit.* COM/2008/0763.
[273] *Op. Cit.* Commission des affaires européennes du Sénat, 2017.

the scope of the EU cohesion policy. Thus, the EU's involvement in the region relies on these two levels of interests: the international regime and the EU regional integration. This interplay allows the EU to build its actorness not only on science diplomacy but also on regionalism diplomacy which is unveiled by the functioning of the EU scientific cooperation in the Arctic. In this respect, the BEAR could be seen as a showcase of the EU's capabilities in scientific cooperation and sustainable development. Nevertheless, competition between strategic actors in the Arctic regime on polar research is high. For instance, China represents a major challenger to EU's actorness in the region with major investments in polar research and its capacity to rely on the weaknesses of the EU's internal and external cohesion, especially with countries pertaining to the European Economic Area[274]. Besides, several other external actors like China, Japan, India[275] and organisations like the International Maritime Organisation[276] obtained the observers status in the Arctic Council showing the Arctic States' recognition of their legitimacy. Thus, the limited and unofficial access of the EU to the Arctic Council mainly stemming from its strategic and diplomatic mistakes limits its actorness in the region despite its involvement in regional cooperation. This research could be furthered by developing the comparison between the BEAC and Arctic Council models with more projects analysis and gathering more interviews to better understand the role of the epistemic community in the EU's actorness. Nevertheless, the focus on the BEAC allows to identify a strong potential relay of the EU's foreign policy objectives in the Arctic regime: regionalism diplomacy, encompassing scientific cooperation as a means for economic development acting as a demonstration on the international stage.

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[274] *Op. Cit.* Cornet, 2018.
[275] The Arctic Council, "Observers", URL: https://arctic-council.org/index.php/en/about-us/arctic-council/observers (consulted on 05.10.2019).
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List of abbreviations

AEPS	Arctic Environmental Protection Strategy
AMAP	Arctic monitoring and assessments programme
APRI	Austrian Polar Research Institute
BEAC	Barents-Euro Arctic Cooperation
BEAR	Barents Euro Arctic Region
CAFF	The conservation of Arctic Flora and Fauna Working Group
CBMP	Circumpolar biodiversity monitoring programme
CNRS	Centre national de la recherche scientifique (national centre for scientific research)
CSO	Committee of Senior Officials
ENPI	European Neighbourhood partnership instrument
ERDF	European Regional Development Fund
EU	European Union
IASC	International Arctic Science Committee
NPA	Northern Periphery and Arctic Programme
UNFCCC	UN Framework Convention on Climate Change
UNCLOS	UN Convention on the Law of the Sea

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