EU policy processes relevant for adaptive co-management of Arctic fjord systems. Synthesis of literature and policy document review

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Abstract

What role could the European Union play in relation to adaptive co-management of Arctic fjord systems in times of rapid environmental and social changes? This review of EU policy in relation to the Arctic – conducted as part of the EU-funded project FACE-IT – highlights that even if the EU does not have formal jurisdiction over Arctic fjord systems, several policy areas may impact their future development. These include priorities related the Green Deal as these will affect demand on Arctic resources, with strong links to geopolitical interests. Other areas of potential direct impact are policies affecting pollution and trade, both of which link the EU to areas outside the Union's borders. The EU funding of Arctic research is also highly relevant. Further work on the EU's potential role for Arctic fjord systems needs to focus on linking the perspectives presented in this document with analyses of local priorities and concerns, including looking specifically at how EU policies might intersect with the development of potential adaptive co-management options.

1 Introduction

Environments connected to Arctic fjords are changing rapidly, with consequences for society locally as well as in other locations. A warmer climate is an important driver of change, but other factors also play a major role, including pressures and opportunities from fishing, tourism, shipping, and changing socio-economic conditions. *The Future of Arctic Coastal Ecosystems – Identifying Transitions in fjord systems and adjacent coastal areas (FACE-IT)* is a research project about managing the consequences of a changing climate on Arctic fjord systems with focus on marine biodiversity and Arctic societies. It is funded by the European Union's Horizon 2020

research and innovation programme under grant agreement No. 869154.The overarching objective of FACE-IT is to enable adaptive co-management of social-ecological fjord systems in the face of rapid cryosphere and biodiversity changes. This report is part of FACE-IT's WP7 *Policy dialogue and outreach* and provides documentation of work carried out towards Milestone 17. “Completion of the mapping of EU and international policy processes.” Together with insights from local stakeholder workshops and analyses of their local policy and management contexts (WPs 4 and 5), the mapping of EU policy processes will be used as background for a mid-term policy dialogue meeting to gather feedback (tentatively scheduled for March 2023) and to prepare for a final policy dialogue meeting for selected local, national, EU, and international stakeholders (planned for spring of 2024). This task is linked to Deliverable 7.8. “Policy dialogue,” due April 2024.

The final policy dialogue workshop will link insights from the policy mapping with the transdisciplinary synthesis in WP6 and further workshops that will focus on local co-management options. The aim is to create a mutual understanding of challenges and opportunities of local adaptive co-management in the face of rapid climate change and other stressors facing social-ecological processes linked to Arctic fjords and to identify specific actions within the EU that have bearing on the success of adaptive co-management in Arctic fjord systems. Adaptive co-management is here understood as a management approach that links the learning aspect of adaptive management with attention to the relationship between local processes and other governance contexts, including any relevant relationship to the European Union (definition adapted from Plummer et al. 2012).

The management of Arctic fjord systems is not within the policy realm of the European Union. EU policy processes are nevertheless relevant for the social-ecological dynamics of these systems because industrial activities and densely populated areas in the EU are located close to the Arctic and because of the EU’s many physical, economic, and policy-related teleconnections to the region (Koivurova et al. 2021). The aim of this report is to provide background for assessing the potential role of the EU in relation to the overarching goal of FACE-IT. The report is based on a review of relevant scientific literature and publicly available policy documents. In addition, we have had contact with the European Commission (EC) to gather relevant information through interviews.

2 Background: EU's complicated and contested engagement in the Arctic

The EU's engagement in the Arctic region is relatively recent and its role contested. While the European Economic Community (EEC) had ties with Greenland, as part of the Kingdom of Denmark, Greenland wth its rights within Home Rule left the EEC in 1985 due to conflicts about fishing and hunting. When the EU was formed in 1993, it thus lacked natural links to the Arctic and the region disappeared from its political agenda. After Sweden and Finland joined the Union in 1995, the EU again had a formal link to the Arctic region, but its focus was mainly on regional cross-border cooperation with Russia in the Northern Dimensions Initiative (1999-2006) (Heininen and Nicol 2007). Even if some attempts were made to create "an Arctic window" in this initiative, the EU's engagement in the Arctic was "uncoordinated and ad hoc" until 2007 (Offerdal 2010; Wegge 2012).

Current EU interests in the Arctic instead stem from geopolitical changes after the 2007 Arctic Ocean sea-ice minimum. This climate-driven event coincided in time with the process of coastal states submitting claims for decisions about the outer limit of the continental shelves under Article 76 of the UN Convention on the Law of the Sea (UNCLOS), which created a political and media discourse about economic opportunities and access to oil and gas (Nilsson and Christensen 2019). The new situation after the Arctic Ocean sea-ice minimum in 2007 also featured intense discussions among scholars about the pros and cons of various governance solutions for the Arctic (e.g., Koivurova, Keskitalo, and Bankes 2009; Berkman and Young 2009; Koivurova and Molenaar 2009; Young 2009a; 2009b; Arctic Governance Project 2010; Berkman 2010; Young and Broderstad 2010; Gerhardt et al. 2010; Shadian and Huebert 2013).

The new political landscape prompted the European Commission to begin a concerted effort to develop an Arctic policy. The work took place within a context of expanding the Commission's role in foreign policy and was led by a small group of particularly interested individuals and lobby groups. The focus was on the Arctic Ocean, specifically on the interface between impacts of climate change, a new maritime landscape, geopolitics, and the launching of an EU action plan for an integrated maritime policy (Offerdal 2010; Wegge 2012).

In parallel with the Commission's work, the EU Parliament voted on a resolution that urged the Commission to take a proactive role in the Arctic and to prepare negotiations for an international treaty for protection of the Arctic. This raised major concern among Arctic coastal states, setting in motion direct lobbying towards the Commission and inspiring two high-level meetings among the coastal states, the first one convened by Denmark in Ilulissat, Greenland, in 2008. At this meeting, the participating five coastal states (Canada, Kingdom of Denmark, Norway, Russia, and the United States) signed the Ilulissat Declaration, which proclaimed their view of Arctic governance with focus on their special role as coastal states under the Law of the Sea (Wegge 2012; Dodds 2013). When the Commission's report was presented in November 2008, the controversial focus on a possible Arctic treaty was not visible and the emphasis on governance expressed as "contributing to enhance Arctic multilateral governance." The other two overarching themes were "protecting and preserving the Arctic in unison with its population" and "promoting sustainable use of resources" (European Union 2008a; Wegge 2012).

The ambition to contribute to multilateral governance in EU's 2008 report became expressed as an effort to gain permanent observer status in the Arctic Council. So far, the EU has fallen short of this goal. A first rejection, in 2009, was closely connected to opposition from Canada because the EU planned to ban seal products from its market (Wegge 2012; Phillips 2009). The quest for observer status became further complicated when the Arctic Council members needed to preserve their privileged status as they were inundated by requests from non-Arctic states to become member of this exclusive club. One result was the development of an Observer Manual (Arctic Council 2013a). However, even after the Arctic Council in 2013 came to agreement of a process for admitting permanent observers and indeed granted this status to several applicants, the final approval of the EU's observer status remained pending requiring solution of EU's conflict with Canada (Østhagen 2013). At this point opposition from Russia was also mounting, due to the EU's criticism of the annexation of Crimea in 2014 (Ingimundarson 2014).

While the EU's lack of permanent observer status in the Arctic Council did not have major practical implication, given that the EU remained as an ad hoc observer, it initially had "huge symbolic value" (Offerdal 2010). One analyst also highlighted that by ignoring all non-state applications for observer status, the Kiruna decisions indicated

that the Arctic Council was moving towards becoming an inter-state organization and the Arctic more like other regions governed by sovereign authorities (Steinberg and Dodds 2015). This is also in line with the argumentation in the Ilulissat Declaration from 2008.

EU-Canada relations have improved but prospects of the EU obtaining permanent observer status in the Arctic Council are still uncertain. In May 2021, the issue of the EU's application to become permanent observer in the Arctic Council became entangled with a long-standing conflict between Norway and the EU about fishing quotas around Svalbard (as discussed in further detail in section 5.1), following a sharp diplomatic note from Norway (Royal Norwegian Ministry of Foreign Affairs 2021; Østhagen and Rottem 2021). Since then, the geopolitical situation has shifted dramatically also affecting the Arctic Council. After Russia's aggressive invasion of Ukraine in February 2022, all Arctic Council activities were suspended. While informal discussions are taking place between the other seven member states, it is (in the fall of 2022) too early to assess how the circumpolar cooperation will continue and thus the long-term impact of the deteriorating relations between the EU and Russia on the role of the EU in the Arctic Council. Still, the EU has been heavily involved in the work of the Arctic Council and has had de facto the same rights as an observer member. Some EU officials thus consider that they have not been handicapped by the lack of an official observer status to participate in the work of the organisation and develop cooperation programs in the Arctic region.

3 EU Arctic policy: Joint communications

Over the years, the EU's Arctic policy has been further clarified and nuanced in Joint Communications and a Council Conclusion (Council of the European Union 2009; European Union 2012; 2016). The 2016 EU Arctic Policy focuses on three overarching areas: 1) Climate change and safeguarding the Arctic environment; 2) Sustainable development in and around the Arctic; and 3) International cooperation on Arctic issues. While its title suggests an integrated approach to Arctic policy, it has been described as "a work in progress" and "a sum of many parts" with two distinct yet interlinked policy spaces that connect the EU to the Arctic: 1) the pan-Arctic maritime space relevant for EU's external affairs; and 2) the internal European Arctic policy domain, focusing mainly on the terrestrial sphere (Stepien and Koivurova 2017).

In 2020, the EU launched a consultation on the future approach in EU Arctic policy (European Commission, DG MARE and European External Action Service 2020) and 13 October 2021, the updated EU Arctic policy was presented (European Commission and High Representative 2021). The 2021 Arctic policy includes earlier priorities on climate change, research, and sustainable and inclusive development but also features a strong focus on geopolitical security interests of the EU and on the Green Deal, which is described as at the heart of the EU's Arctic engagement. The policy states that "Intensified interest in Arctic resources and transport routes could transform the region into an arena of local and geopolitical competition and possible tensions, possibly threatening the EU's interests" (European Commission and High Representative 2021, 1). This geopolitical focus, for the first time presented in a dedicated chapter of an Arctic policy document written by the EU, appears connected to two separate priorities. One is access to critical minerals needed for the transition away from fossil fuels (Bjørst 2022). The other is related to traditional concerns about keeping the Arctic region peaceful and safe in the face of new geopolitical tensions globally (read: new assertiveness from Russia and China). Specific actions proposed in the document include establishing an office in Nuuk in 2022-2023 to deepen the partnership with Greenland. This could become relevant for communicating FACE-IT's finding from its work in Greenland and insights about the larger governance context of local adaptive co-management. Although the EU has a clear ambition to become a geopolitical actor in the Arctic, interviews with EU officials suggest that it does not intend to be a "hard security" player. Rather, the concept of security is considered in a broad way: environmental security, human security, and search and rescue activities. The situation is nevertheless evolving as Finland and Sweden are in a process of joining the NATO alliance, while Russia led a remilitarisation in the Arctic already before its invasion of Ukraine.

In line with the ambitions in the Green Deal to move away from fossil fuels, the EU policy also includes a commitment to keep fossil fuels in the ground: "Building on the partial moratorium on hydrocarbon exploration in the Arctic, the EU is committed to ensuring that oil, coal and gas stay in the ground, including in the Arctic regions" (European Commission and High Representative 2021, 10). It furthermore states that the Commission shall work towards a "multilateral legal obligation not to allow any further hydrocarbon reserve development in the Arctic or contiguous regions, nor to

purchase such hydrocarbons if they were to be produced." This goal brought immediate negative reactions, including a comment from the Arctic Economic Council to not meddle in Arctic business development (Jonassen 2021) and from commentators in Norway pointing out the paradox that the EU is still dependent on oil and that EU is responsible for emissions of greenhouse gases (Østhagen 2021b; Holm 2021). Here, the EU's more assertive stance against oil and gas producers may play into other tensions between Norway and the EU about how far the EU should be able to influence activities in places beyond its own jurisdiction. It illustrates how the stronger geopolitical ambitions in combination with Green Deal priorities can have political implications for the EU's legitimacy as an Arctic actor, complicating the EU's role in the Arctic, including its ambitions in relation to "strategic day-to-day interests, both in the European Arctic and the broader Arctic region" (European Commission and High Representative 2021, 1). The goal of the EU to leave Arctic oil, coal and gas in the ground is further challenged by an urgent need for energy sources to replace gas and oil imported from Russia. However, even if EU interests in Arctic hydrocarbon resources is reinforced, EU officials highlight that the long-term ambition of phasing out fossil fuels has not changed, and that this transition should take place at an even quicker pace.

On several other topics, the updated EU Arctic policy reiterates earlier priorities. These include support for Arctic research, which is described as a tool for Arctic diplomacy, continued dialogue with Arctic Indigenous peoples, the use of EU-funded communication technologies, e.g., for civil protection and safety in remote areas, and ambitions to create marine protected areas in the Arctic Ocean. It furthermore acknowledges the EU's environmental impact on the region relating to pollution as well as exploitation of natural resources, where action on black carbon emission and marine litter are mentioned as priority areas, along with lowering the footprint from shipping. EU officials highlight that research programs funded by the EU have contributed to better understanding the Arctic region and to strengthening cooperations with local stakeholders. In the case of Greenland, the opening of an EU office in Nuuk is supposed to fall within this approach.

As discussed by Stepien and Raspotnik (2021), a major change since the 2016 version of the EU's Arctic policy is how the European Green Deal has become "not only the EU's future economic instrument" but also "the Unions future foreign policy device

(Stepien and Raspotnik, 6). This could suggest that the EU, in addition to taking a more assertive stance geopolitically, will be willing to use economic instruments for pushing its priorities in the Arctic. Given the economic ties also to activities in Arctic fjord systems, this may have implications for local adaptive co-management of resources in the case study areas of FACE-IT. It is however important to remember the lack of legal competencies of the EU. “Third states” decide for themselves and the EU can thus mostly encourage good practices and push for higher environmental standards.

4 EU’s competence in relation to fjord systems in Greenland, Svalbard and Norway

4.1 Relations to Greenland

The relations between Greenland and the EU are closely tied to Greenland’s process of decolonization, including the 1979 referendum when a large majority of Greenlanders voted for Home Rule as a direct result of Denmark joining the European Economic Community. This was followed in 2008 by a referendum on Self Government, which was accepted by the Danish Parliament in 2009. Already under Home Rule, in 1985, Greenland left the European Community and instead received status as “overseas country or territory” (Gad 2017). This status has served as a base for a bilateral fisheries agreement with the EU (Ackrén and Jakobsen 2015). The initial bilateral agreement has since been extended and fisheries are currently covered by the Sustainable Fisheries Partnership Agreement (European Commission 2021c). There is also a broader partnership agreement, where the focus in the 2014-2020 period was on education and training with an overall goal of diversifying Greenland’s economy (Naalakkersuisut Government of Greenland n.d., see also Campins Eritja 2017). Greenland-EU relations are also guided by a Joint Declaration signed by the EU, Greenland, and Denmark in 2015. This declaration is not legally binding but lists areas where the aim is to further strengthen relations. They are:

- Sustainably managing fish stocks and the marine environment as well as providing fishing opportunities for the vessels of EU Member States which should remain an essential pillar of the partnership between the EU and Greenland and continue to be based on the EU Greenland Fisheries Partnership Agreement and its Protocols.
- Education and training, tourism and culture.
- Natural resources, including raw materials.
- Energy, climate, environment and biodiversity.

- Arctic issues.
- The social sector; mobility of workforce; social protection systems; food safety and food security issues.
- Research and innovation in areas such as energy, climate change, disaster resilience, natural resources, including raw materials, and sustainable use of living resources.

According to the 2021 EU Arctic policy, and as noted in the previous section, the EU plans to open an office in Nuuk to further support EU-Greenland collaboration (European Commission and High Representative 2021) but also to help the EU better understand the local context and to explain how the EU works to people in Greenland.

In a comment on EU Arctic policy and the negotiations on Greenland-EU relations that were completed in 2021, Leander Nielsen (2021) commented that “Greenland benefited more from the fisheries agreement while receiving a slightly less beneficial deal as part of the partnership on educational support” He also suggests that the EU could get better value for its 350 million DKK support to Greenland by ensuring greater visibility amongst the Greenlandic public, as most people are not aware of the EU current contributions to Greenland. An opinion poll focussing on Greenlander’s attitudes towards foreign relations has concluded that, in general, foreign policy is not a salient topic in the public debate. Regarding relations to the EU, Greenlander would like to see more cooperation but are nevertheless not willing to become members of the EU (Ackrén and Leander Nielsen 2021).

In addition to The EU’s political ambitions, Greenland-EU relations include the fact that Denmark (an EU member) is the most important export market for Greenland, with focus on fish and crustaceans (Observatory of Economic Complexity (OEC) n.d.).

In 2009, the EU regulated trade in seal products, prohibiting them from the EU market (European Commission 2009b; 2015). Even if this regulation includes an exception for products that come from hunts conducted by Inuit or other Indigenous communities, the ban was heavily criticized by Greenland and Canada as it essentially killed the market (Graugaard 2020). In their reply to a questionnaire, the Greenland Government in 2019 included the following general assessment: “As is clear from an overall decrease in catches of seals, number of traded skin to Great Greenland, the international skin sale, the importance of income from skin trading and the tannery Great Greenland’s importance as a workplace in South Greenland and for local seal

seamstress the implementation of the EU seal regime has had and still has a large impact on sealing in Greenland, especially to the remote and isolated areas in North and East Greenland" (Greenland department of fisheries, hunting and agriculture 2019).

Without going into detail, the literature on the impact of the EU's seal skin regulations clearly shows that EU policies can impact resource management in Greenland, and that such impacts can also affect political relations (Phillips 2009; Sellheim 2013; Østhagen 2013; Sellheim 2015; European Commission 2015). It has furthermore affected perceptions of the EU in Greenland, as described the following way by Campins Eritja: "there is still a general feeling on the part of the Greenlandic population that the Greenland's lifestyle and traditions continue to be misunderstood by the EU" (Campins Eritja 2017, 94). She points to whaling as another issue that has been sensitive in the EU-Greenland relationship.

The future relationship between the EU and Greenland may be influenced by the fact that Greenland's geology makes its territory a potential source of critical raw materials for the transitions to non-fossil energy system, such as rare earth minerals (Lawlor et al. 2014; Goodenough et al. 2016). This is a strategic resource not only in the eyes of the EU but has received interest also from China and from the United States (Andersson 2021). It places Greenland into a larger geopolitical context that may affect EU-Greenland relations (Gronholt-Pedersen and Onstad 2021). After the general election in 2021, the new government in Greenland supports the development of the mining sector as part of a diversification strategy. The attractiveness of these resources and potential for mining activities could also affect Greenland's fjord systems close to these resources and in vicinity of the shipping routes, both the ecology and the socio-economic context of managing ecosystem resources. In her analysis of the legal frameworks for hydrocarbon development, Campins Eritja highlights that EU's policy frameworks for and commitment to protecting Indigenous People's rights are poorly developed (Campins Eritja 2017). These comments would be equally applicable to other raw materials and thus relevant for EU-Greenland relations in a green transition and regarding other areas where EU's strategic interests intersect with the interest of Greenlanders. However, EU officials emphasize they have learnt from their past experiences and want to improve the way they work with local communities in the Arctic, especially Indigenous people. The concept of "prior and informed consent" is

for example clearly stressed in the new EU Arctic policy, along with a continuous dialogue with diverse stakeholders at different levels. EU officials highlight that by doing so, the EU recognises the diversity of the local communities that have their own concerns and thus their own positions when it comes to resource extraction. Regarding exploration for hydrocarbon resources, Greenland's government in 2021 dropped all plans for future oil exploration, citing climate concerns (Buttler 2021; Lindstrøm 2021). Its stand thus aligns with the EU's ambitions.

4.2 Relations to Norway and Svalbard

Norway is not a member of the EU. Such membership has in fact been rejected by two referenda, the most recent in 1994. This rejection has been attributed to "the EC's poor track record in a few policy areas key to Norway, such as fisheries and agriculture" (Østhagen and Raspotnik 2017, 100). In practice, and as a consequence of being party to the European Economic Area (EEA) agreement, Norway nevertheless follows most EU legislation and has been characterized as "the 'most integrated outsider to the Union" (Østhagen and Raspotnik 2017, 97). For example, Norway has chosen to implement EU's Water Framework Directive (Hansen et al 2016). Via the EEA agreement, Norway has access to the single market and cooperate on internal market matters and in policies related to budgetary matters, education, research and innovation, and public health. Norway has also entered into bilateral agreements with the EU, for example related to crisis management operations, and often joins the EU in foreign policy statements (Haugevik 2017). Norway is also a member of the Schengen agreement and contributes financially to the EU. A major difference compared to EU member states is that Norway has no formal say in EU's decision-making processes. Furthermore, some policy areas are explicitly excluded, such as fisheries policy. The economic ties between Norway and the EU are strong, with EU countries as the five largest export and import markets (Haugevik 2017).

Despite the close cooperation and agreement on many issues, relations have not always been harmonious, especially on issues that touch close to the heart of Norwegian interests in the Arctic. One of those issues relate to Svalbard's maritime zone and different interpretations of the Spitsbergen Treaty, or the Svalbard Treaty as it is often called (Traité Concernant Le Spitsberg 1925). Until the Spitsbergen Treaty was signed in 1920, this high Arctic archipelago was considered Terra nullius, but the discovery and early exploration of its coal deposits created a need for the rule of law

to safeguard efficient resource exploitation. Norwegian organizations already controlled considerable parts of Svalbard at the time of the negotiations (1919-1920) and in the Treaty, Norway gained sovereignty over Svalbard but subject to certain conditions (Avango et al. 2011; Berg 2013). The conditions include prohibition against military activities, that Norway must respect and preserve the Svalbard environment, that Norwegian authorities cannot discriminate or favour actors based on citizenship, and that taxes can only be collected to support Svalbard.

The contentious question is how far from land that the Treaty applies: only to territorial water or across the whole 200 nautical mile Exclusive Economic Zone (EEZ)? Norway claims the latter, but this has been disputed by other countries and, in their interpretations, they should have at equal rights to economic activities in the EEZ. In 1977, Norway established a Fisheries Protection Zone (FPZ) around Svalbard to protect and manage fisheries, a move that has been criticized by several countries. The EU as such is not party to the Treaty, but several of its member states have been engaged in diplomatic exchanges with Norway about the legal status of Norway's claims (Østhagen and Raspotnik 2018). According to Østhagen and Raspotnik (2018), the EU "neither accepts Norway's claim to unrestricted sovereignty in the FPZ, nor does it accept conservation measures that amount to access restrictions for the EU." The opposing views came to a head in a dispute over snow crab fishery after Norway in 2015 imposed a ban on catching snow crab on the Norwegian continental shelf, with a limited number of licenses only to Norwegian fishers, thus excluding boats from EU countries. The matter is further complicated by the fact that Norway in 2011 was granted rights to the extended Norwegian continental shelf under UN Convention on the Law of the Sea (UNCLOS). Because this shelf extends to Svalbard, Norway claims to be the sole regulator of economic activity there, but this claim has been challenged based on the notion that the Spitsbergen Treaty should apply (Østhagen and Raspotnik 2018). After Brexit and its yet to be resolved impacts on EU fishing quotas, the conflict has gained new traction. The immediate cause is that Norway and the EU have different views on how EU quotas for Arctic cod should be calculated and has been dubbed a brewing new cod war with risk for lawlessness in fishery activities around Svalbard (Moe 2021). According to Moe, an EU note sent in June 2021 calls Norwegian sovereignty over Svalbard into questions, with geopolitical and security implications. Adding fuel to the dispute is an announcement from DG MARE that "the

European Union has great concerns that Norway and Russia, without seeking to cooperate with any of the other relevant stakeholders, are taking decisions that are leading to an unsustainable fishing of the stock" (European Commission, DG MARE 2021b; see also Bronder 2021).

Norway's position in these disputes is well in line with what has been described as an assertive stance in establishing a strong governance regime for Svalbard (Kaltenborn, Østreng, and Hovelsrud 2020). It is also in line with Norway's ambitious politics in relation to its "High North" and being a key player in circumpolar international politics.

The fjord systems of Svalbard are close to the coast and would not be immediately affected by diplomatic snags and different interpretation of rights in relation to activities in the FPZ on the continental shelf. However, fjord systems are directly connected to the marine environment further from the coast (outside the FPZ), and any regulations (or lack thereof) are likely to affect the fjord ecosystems. They can also be affected by activities on land, which are more clearly covered by Norwegian jurisdiction. The political landscape extends further and potentially involve all powers that assert their interests in the Arctic, and indeed the geopolitical stability of the region (Kaltenborn, Østreng, and Hovelsrud 2020). In this context, the diplomatic snags surrounding the snow crab and cod quotas specifically and fisheries more broadly reflect a general tension between the requirement to not impose rules that discriminate other parties to the Spitsbergen Treaty and the broadening of environmental governance that started in the 1970s, moving from protecting individual species to safeguarding continuous wilderness, landscapes, flora, fauna, and cultural heritage (Kaltenborn, Østreng, and Hovelsrud 2020).

The contentious context of different interpretations of international law is highly relevant for what role the EU could potentially play in relation to co-management of social-ecological fjord systems in Svalbard. Most importantly, anything that could be perceived as an undue policy initiative could become caught up in disputes related to Arctic fisheries or to tense diplomatic relations. It is relevant here to draw parallels with the reactions from several Arctic countries in relation to the EU ban on seal skins.

For FACE-IT's study of the social-ecological system in the Porsanger fjord (Finnmark), the political context is different from Svalbard as it is not entangled with the geopolitical dimension that are inevitable in questions related to Svalbard. It could nevertheless be

affected by disputes of what is considered sustainable fisheries in the Barents Sea. Furthermore, there have been conflicting interests between small- and large-scale fisheries (Eythorsson 2008). The presence of Saami as indigenous peoples, as well as the Kven people, who are a national minority in Norway, also makes the situation different from Svalbard. In relation to Saami interests, an ongoing dialogue between the Saami and the EU is therefore relevant. In 2022, the first ever "EU Sámi Week" was organised in Brussels by the Saami Council and gathered many EU officials.

A third area of potential conflict between Norwegian and EU interests relate to oil and gas production. While Norway is an important supplier of oil and gas to the EU and increasingly so given the EU's wish to cut hydrocarbon imports from Russia, there have been calls from EU parliamentarian for a moratorium on oil and gas exploration in the Arctic, calls that now also appear as a sharp priority in the EU's updated Arctic policy with its long-term goal of keeping coal, oil, and gas in the ground. Earlier rhetorical attempts to interfere with domestic Norwegian affair have been "rebuffed" and described as not helpful in making the EU a legitimate Arctic actor (Østhagen 2013) and the new EU priority has been met with similar reactions.

5 Policy landscapes related to the management of Arctic fjord systems

5.1 Fisheries

Arctic fisheries are important for the EU in two ways: first, as a source for supply of seafood, where the EU is the world's largest seafood markets, including import from Greenland and Norway (Koivurova et al. 2021). Second, the large fish stock in the Arctic of cod, pollock, herring, haddock, and halibut are of interest to the fishing fleets of EU member states and subject to fishery quota negotiations (Østhagen 2013). Fishery issues have also been a common cause of contention between the EU and Arctic countries, and indeed a motive for not wanting to be a member of the Union, as discussed in the section on EU relations to Greenland and Norway.

While the EU only accounts for a small proportion of fish catches in the Arctic, the footprint of EU's fish consumption is considerable, potentially growing, and mentioned already in the 2010 EU Arctic Footprint report as a cause for concern (Cavalieri et al. 2010), especially in relation to fish stocks that are over-exploited. Koivurova et al. (2021, 84–85) provides an updated assessment of trade-flows related to seafood and

concludes that “the role and footprint of the EU as a seafood market for Arctic countries seem to be much more important than its role as an actor in sub-Arctic fisheries.”

Data on the status of fish stocks that are landed in the European Union are assessed by the European Environment Agency. Its 2021 assessment concludes that the environmental status of fish stocks in the Northeast Atlantic have improved thanks to better management and decreased fishing pressure but that continued efforts are needed to meet EU’s 2020 objective for healthy fish and shellfish stocks in the North-East Atlantic Ocean (European Environment Agency 2021). However, the EU has expressed concern about the sustainability of Arctic cod fisheries in the Barents Sea, based on assessment from the International Council for the Exploration of the Seas (ICES) (European Commission, DG MARE 2021b). There is also concern about pressures from illegal, unreported, and unregulated fishing and from unintended bycatch. In Greenland, from 2013- 2019, the TAC was set significantly higher than that of scientific advice and, according to the Greenland Institute of Natural Resources, it will not be possible to maintain catches at current levels in the coming years if current developments continue (Fiskerikommissionen 2019: 20).

The Arctic footprints report also highlights that fisheries impact the environment not only by catching fish but also by emissions and pollution from the fishing fleet. Concerns include emission from fuel combustion (such as emissions of black carbon) and the fishing fleet’s substantial contribution to marine litter, including plastic pollution. Plastics in the Arctic has become a key issue for the Arctic Council with efforts to assess its impacts and to develop management plans (Arctic Council n.d.). It is also discussed by Koivurova et al. (2021), who suggest that the EU could be a considerable source of microplastics in the Arctic, where fisheries is mentioned as one of several sources. They also highlight that micro and macro plastics affect animals in the Arctic and may affect perceptions of Arctic fish as a valuable and safe food source.

An additional concern for fisheries in the Arctic relates to the impacts of emissions of greenhouse gases and potential negative impacts on fish stocks linked to warming and acidification, although uncertainties are large, and impacts will differ geographically. The Arctic Biodiversity Assessment highlights the risk that shifts in distribution patterns from sub-Arctic to high latitude seas may attract modern fishing fleets further north and come in conflicts with Indigenous peoples’ subsistence livelihoods along the Arctic coasts. Furthermore, species associated with the seabed can end up as bycatch in

conventional bottom trawling equipment. Even if these species are not commercially valuable, many are important for the functioning of Arctic marine ecosystems (CAFF 2013).

Shifts in the distribution and migration patterns of fish stocks also have the potential to cause political conflicts in fisheries management. For example, a decade-long dispute between Iceland, the EU, the Faroe Islands and Norway over the distribution of the total allowable catch for mackerel in the Norwegian Sea has led to concerns over the stock becoming depleted (Østhagen 2021a).

A specific aspect of climate impacts is the risk that declining sea ice will attract unregulated fishing in the Arctic Ocean. In 2018, the five Arctic coastal states together with the European Union, China, Iceland, Japan, and Korea signed the Agreement to prevent Unregulated High Seas Fisheries in the Central Arctic Ocean to address this concern ("Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean" 2018). The agreement prohibits the initiation of unregulated fisheries in the Central Arctic Ocean and includes a Joint Program of Scientific Research and Monitoring to assess whether commercial fisheries should be allowed in the future (Vylegzhanin, Young, and Berkman 2020). While activities in the Arctic Ocean are covered by international agreements related to pollution, biodiversity, maritime issues, and rights to resources, the areas outside the EEZs of the five Arctic coastal states are not included in national fishery regulations. The EU has authority to be a party to the 2018 Agreement due to its exclusive competence under the Common Fisheries Policy (Council of the European Union 2019). It is, however, uncertain whether fisheries in the Arctic Ocean will become commercially viable. Nevertheless, Vylegzhanin et al. (2020) describe the agreement as a sign of an emerging broader governance system that emphasizes preservation and protection of the Arctic environment and marine resources.

EU's Common Fisheries Policy (CFP) applies to all vessels fishing in European waters and to EU vessels fishing in non-European waters, thus including the Arctic (European Commission n.d.). The purpose is to conserve marine biological resources and ensure that fisheries are sustainably managed, i.e., in a way that can produce the maximum sustainable yield over an indefinite period. In addition, the EU's Marine Strategy Framework Directive (MSFD) for achieving "good environmental status" (European Union 2008b) states that "Marine resources must be harvested sustainably and there

must be zero-tolerance for illegal practices". A new action plan is due in 2021 (European Commission 2020). The CFP, and its "discard ban" and "landing obligation" in particular, is relevant for reducing unwanted bycatch, and Liu and Kirk (2015) suggest that the EU could use its position as a major fishing market to promote such measures also for other vessels not covered by EU policy. They also mention the possibilities of using import control from unsustainable fisheries, though such measures must be non-discriminatory and compatible with WTO rules. Koivurova et al. (2021) also highlight markets as a venue for supporting sustainable fishery practices, including improved consumer information. They also list "Contribution to scientific work and cooperation in the central Arctic Ocean fisheries" as an important policy option.

Aquaculture is not covered by the CFP and is not exclusive EU competence but nevertheless covered by several EU rules, e.g., related to human an animal health (European Commission, DG MARE 2021a). It is also one of the action areas within the International Council for the Exploration of the Sea (ICES), which in 2021 published policy advice on Aquaculture (ICES 2021). The development of aquaculture has led to some criticisms, for example in Norway where fishermen/women voice their concerns about decreasing fish stocks in specific areas. They argue that aquaculture installations have negative effects on the local biodiversity. Nevertheless, the local attitudes towards aquaculture are generally positive (Rybråten et al. 2018). In 2021 the EU adopted new strategic guidelines for aquaculture aimed at ensuring supply of food, low environmental and climate footprint, and the sector's contribution to the Green Deal (European Commission 2021b). EU officials emphasize that aquaculture has to develop in a sustainable way, while it is important to respect the desire of the local communities. The possibility for the EU to use market-related measures to exert influence on exporting countries would be similar to those related to fisheries.

5.2 Tourism

Tourism is increasingly relevant for economic development in the Arctic (Turunen et al. 2017), where climate change with its glacial and sea ice retreat has spurred last-chance tourism (Lemelin and Dawson 2013; AMAP 2017, 2017). Increases in tourism could lead to economic leakage as well as social and environmental impacts locally (AMAP 2017), especially when cruise tourism floods local communities and popular attractions (Dawson et al. 2016). The construction or the extension of transportation-

related facilities, such as ports and airports, not only puts pressure on local ecosystems but will likely also lead to increased traffic and greenhouse gas emissions and a higher number of visitors. However, tourism can also bring local income and improved infrastructure, and perceptions of risk and opportunities vary among local actors. Tourism therefore faces a greater diversity of risks than many other economic sectors (Scott, Hall, and Gössling 2019) and its vulnerability to external shock have become very evident during the COVID-19 pandemic. Tourism is also challenged by a double set of climate risks: impacts on infrastructure and ecosystems services and mitigation actions that affect travel.

EU countries account for a significant share of tourists in the Arctic. In Greenland 2020, 44% of cruise tourists were from EU-27 countries (including Denmark) and in 2019, EU countries accounted for 47% of the accommodation nights (without the UK and Denmark). In northernmost Norway and Svalbard, EU-27 accounted for 27% of foreign visitors (Koivurova et al. 2021). Besides cruise ships, a significant number of visitors come to these places by plane, using long-haul flights when traveling from other continents, which contributes to global greenhouse gas emissions. As Greenland and Svalbard are only reachable by few air routes, travellers must often combine different flights and thus use ineffective itineraries that worsen the carbon footprint related to an air trip to Arctic regions. Moreover, the development of charter flights, which gives the possibility to transport tourists more directly, is also encouraging not sustainable travel habits and does not benefit the local communities in terms of accessibility.

In terms of policies, the EU does not have direct influence on tourism activities in Arctic fjord systems. However, its climate and pollution policies may affect travel options, which would indirectly affect the amount of travel. The EU can potentially also influence the environmental impacts of travel, including shipping (see below), and provide knowledge input to international organization that guide tourism development in the Arctic, such as the Association of Arctic Expedition Cruise Operators (AECO). Although the EU cannot determine specific environmental standards for tourism, it can encourage good practices.

The future development of tourism may also be influenced by perceptions of the Arctic and of moral obligations to reduce travel and/or the sustainability impacts of travel, where they EU has a potential role as trend setter, at least for European tourists. The EU has a program aimed at promoting sustainable and competitive tourism (European

Commission n.d.). While this program focuses on EU member countries, its indicators of sustainable tourism (European Commission n.d.) and eco-label are potentially relevant also for Arctic fjord systems.

5.3 Shipping

Fisheries and tourism are important contributors to shipping in the Arctic, together with transport of goods and raw material, and research vessels. From 2013 to 2019, shipping in the Polar Code areas increased by 25% (PAME 2020). Most of these were fishing vessels. The distance sailed by all these vessels had increased by 75%. An important cause for the increase is the extraction of natural resources, including ores as well as oil and gas. The increase in distance by bulk carriers was 160%, mainly due to the opening of new mines in the Arctic. So far, transpolar shipping is limited compared to the destinational shipping, even though Russia previously highlighted ambitious goals to develop shipping traffic on the Northern Sea Route to export hydrocarbon resources but also to stimulate the use of an alternative waterway between Europe and the Pacific. Such a development would have significant consequences for the Arctic region, but the challenges are numerous because of lack of infrastructure and weather and sea ice conditions (Hermann et al. 2022). Geopolitical concerns add to the challenges.

Forty percent of the world's shipping fleet sails under EU member states' flag (Østhagen 2013) and given that they EU is also an important market for raw materials from the Arctic, the EU is a relevant actor in relation to Arctic shipping. Shipping activities are covered by EU's Maritime Transport Strategy from 2009, where the Arctic is only briefly mentioned with reference to the Commission's Communication on the Arctic Region and its suggestions "for protecting and preserving this maritime basin and in particular for ensuring sustainable Arctic commercial navigation" (European Commission 2009a). In a follow-up report from 2016, the Arctic is not mentioned at all. However, the 2021 Arctic policy update asserts that the EU and its member states will promote faster and more ambitious emission reductions from shipping in International Maritime Organization (IMO) and within the EU (European Commission and High Representative 2021).

Important impacts from shipping in the Arctic relate to pollution. These include risk linked to oil spills but also from the burning on heavy fuel oil, which, in addition to its

carbon dioxide footprint is a source of black carbon to the atmosphere with climate and potential health impacts. Ships under EU country flags are estimated to account for 31% of carbon dioxide and 17% of black carbon emission emitted from Arctic shipping (Koivurova et al. 2021).

Another concern is the risk of accidents, both in relation to potential oil spills and in relation to the risks to crew and passenger as search and rescue capacities are limited and challenging in the Arctic region. International efforts to regulate shipping are coordinated in the International Maritime Organization (IMO). The IMO has adopted the Polar Code, which entered into force January 2017 (International Maritime Organization 2014). It complements a range of other legal instruments coordinated by the IMO and aims to reduce safety and pollution risks related to shipping in ice-covered waters. In addition, the Arctic Council countries have entered into legally binding agreements about preventing and managing oil spill and about cooperation on search and rescue. The EU is not a member of the IMO and not party to the agreements among Arctic countries. Nevertheless, it can potentially have indirect influence on further development related to maritime safety, where Liu and Kirk suggest coordinating the position of EU countries to build a common EU position. Furthermore, they suggest that the EU can take internal action by strengthening its port control related to carrying and using heavy fuel oil and enforcing existing law aimed at combatting invasive species from ballast water (Liu and Kirk 2015). In addition, Koivurova et al. (2021) highlight the possibility of using the EU's emergency response capacities in Arctic waters, a suggestion that also appears in the 2021 Arctic policy update.

5.4 Oil and gas exploration and exploitation

The EU is dependent on imported oil and gas, a major share of which comes from the Arctic. In 2019, 46% of its natural gas was imported from Russia and 29% from Norway (Arctic and non-Arctic not reported separate in the statistics) (Koivurova et al. 2021). The potential impacts from oil and gas exploration on Arctic fjord systems range from physical disturbance of environments that are important for marine biodiversity to noise, pollution, and increased shipping activities. While some impacts of oil and gas activities are covered by both general and Arctic-specific agreements, the EU has no specific role to play given that it has no jurisdiction over oil and gas activities in national water of the Arctic states. Lui and Kirk (2015) instead point to its role as a consumer of

raw material and actor in global energy politics. They suggest that the EU should promote an Arctic-specific legally binding agreement on offshore oil and gas operations, containing the highest safety standards, using the guidelines prepared by the Arctic Council Working group PAME (Protection of the Arctic Marine Environment) as a starting point. They also highlight the possibility of planning special requirements of companies within member states to report both major accidents and routine impacts on the environment.

The future impacts of oil and gas activities in the Arctic may depend on market demands for this resource. Therefore, the ambition to reduce emissions of greenhouse gases and the EU's Green Deal to speed up a transition away from fossil fuels are highly relevant. However, the transformation of EU's energy regime will likely lead to increased demand for other Arctic resources, both directly via electricity imports from expanding wind power, and indirectly via increasing demand for metals that are used in green technologies. The geopolitical context following the Russian invasion of Ukraine is also forcing the EU to shift geographical origins for oil and gas imports. A stronger focus on the extraction of hydrocarbons in the Arctic is thus expected in the short-term. In September 2022, the Norwegian government decided unilaterally to extend coal mining at Svalbard until 2025, where, according to the Norwegian minister of Industry, the coal is used in production of steel in Europe (Norwegian Government 2022). Nevertheless, the EU asserts that it wants to maintain its long-term goal of transitioning completely away from fossil fuels by 2050.

The potential impacts of oil and gas exploitation on Arctic fjord systems depend on location of new industrial facilities. However, given the envisioned and needed scale of the transition, knock-on effects from larger systems impacts may also be relevant for pressure on Arctic marine biodiversity and the sustainable co-management of Arctic fjords. Koivurova et al. (2021) propose that EU policy makers should promote a comprehensive Arctic Energy Policy, which would be one step towards taking into account the complexity of the EU's energy relationship to the Arctic and its potential implication for Arctic environments and societies.

5.5 Biodiversity and conservation

The foundation for viable Arctic fjord systems is the protection of their biodiversity. Overall, the main threat to biodiversity in the Arctic is climate change (CAFF 2013), but

marine biodiversity is also subject to a range of other pressures. They include fishery and harvesting of marine resources as well as pollution and physical disturbances from human activities, including shipping and oil and gas exploration. The EU is committed to the goals of the Convention on Biological Diversity (CBD) including the Aichi Biodiversity targets. The EU has also signed the Nagoya Protocol to the Convention on Biodiversity, which provides a framework for access and benefit-sharing in relation to genetic resources. The mandatory aspects of the protocol were implemented in 2014 (European Commission, DG Environment n.d.; European Commission 2014).

Given the commitment to protecting biodiversity, the political grounds for measures aimed at preserving Arctic marine biodiversity are strong (Liu and Kirk 2015). However, the way to do so are far from simple given the lack of jurisdiction in non-member states. However, there are issues on which the EU can act and in a review of the EU's potential contribution to protecting Arctic marine biodiversity, Liu and Kirk (2015) highlight several measures related to fisheries, shipping, and oil and gas exploration, which are discussed above, but also the potential for creating marine protected areas in the Arctic and for supporting ecosystem-based management. Within the EU, the Natura 2000 network of protected areas (related to the Bird and Habitat Directives) plays an important role for obliging member states to ensure that especially valuable sites are managed in a sustainable manner, but neither Norway nor Greenland are included in this network and any influence from the EU would thus be indirect, such as leading by example and setting norms. There is currently no legal framework for creating marine protected areas beyond the EEZs. The potential venues for developing future frameworks include the CBD and UNCLOS (Liu and Kirk 2015). Within UNCLOS, the International Conference on Marine Biodiversity of Areas Beyond National Jurisdiction is especially relevant. This conference, with its recurring meetings, is aimed at developing an internationally legally binding instrument (United Nations n.d.). Also relevant is the ongoing work on marine protected areas under the OSPAR Convention, which focuses on protecting the marine environment of the North-East Atlantic from pollution and includes Arctic water (OSPAR Region 1) that are beyond national jurisdiction (OSPAR n.d.). Another potential venue is the Arctic 5+5 collaboration that led to the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean, to which the EU is a signatory. Koivurova et al. (2021) suggest that the EU should create "a stronger institutional presence" in the Arctic Council Working Group

Conservation of Arctic Flora and Fauna (CAFF) and establish an internal policy coordination group for the EU's potential role in biodiversity governance in the Arctic Ocean.

Ecosystem-based management is widely recognized as an important tool for protecting biodiversity (Arctic Council 2013b). More work is nevertheless needed, including developing tools for collaborative and participatory processes among stakeholders and scientists in order to address the increasing complexity of the combined challenges of climate change and increasing human activity (Skern-Mauritzen, Olsen, and Huse 2018). Similar to the situation for protected areas, the EU can only except indirect influence on such processes. A major tool for such influence would be to provide a sound knowledge base for the management.

5.6 Climate change: mitigation and adaptation

With its far-reaching impacts on the physical environment within and around Arctic fjord systems, the changing Arctic climate is likely to have major consequences for both the environment and for people living there. However, the drivers of this change – the anthropogenic emissions of gases and particles that affect the climate – are mainly global in scope. The EU's space of policy action thus relates to its role in climate mitigation, with a mix of policy influence in global policy areas, such as the UNFCCC, and internal actions to promote a shift in energy and production systems away from fossil fuels, including the European Green Deal with its trans-sectorial focus on circular economy and reduction in energy consumption. Further to reduced emissions, this may impact territories outside the EU through inspiration to implement similar policies for green transition.

In addition to its role in leading climate mitigation efforts, the EU plays a role in relation to adaptation, including its newly launched EU strategy on adaptation to climate change (European Commission 2021a). Its long-term vision is that in 2050, the EU will be a climate-resilient society, fully adapted to the unavoidable impacts of climate change. While the focus regions for FACE-IT are not part of the EU, they should be able to take advantage of EU's efforts to coordinate knowledge sharing and its push for improving the science base for decisions about adaptation, where a focus on the link between climate change and ecosystems service is of special relevance in relation to Arctic fjord systems. The strategy also includes a provision to help increase climate

resilience globally, for example by engaging in regional fisheries management organizations to promote adaptation and new marine protected areas. It specifically states that the EU will “include climate change considerations in the future agreement on the conservation and sustainable use of marine biodiversity of areas beyond national jurisdiction” which will be relevant also in the Arctic (European Commission 2021a).

6 Summary and reflections on EU’s role in governance of Arctic fjord systems

Over the past two decades, the Arctic has been characterized by dramatic environmental changes followed by increasing political interest from Arctic states as well as from other actors. Over time, the EU’s engagement in the Arctic has increased but its influence is at the same time circumscribed by lack of formal jurisdiction and challenges to its legitimacy as an Arctic actor. However, it is also clear that the EU’s indirect influence, including its environmental footprint, is substantial due to environmental, economic, and policy-related teleconnections. Its financial contribution to Arctic research and related policy activities adds yet another dimension of influence.

In relation to FACE-IT’s overarching goal of enabling adaptive co-management of social-ecological fjord systems in the Arctic, this context creates a complex challenge where the EU’s Arctic policy may be less relevant than policies related to core political priorities, including the Green Deal, or to the economic interests of different member states (e.g., in relation to fisheries). Adding to this complexity are geopolitical considerations and a high degree of uncertainty regarding the environmental and political implications of rapid climate change. The language of the 2021 EU Arctic policy update suggests that geopolitical considerations and priorities connected with Green Deal are likely to guide the EU’s Arctic engagement in the coming years. Moreover, the document’s assertive a language of the EU as a legitimate Arctic actor may suggest a willingness to use policy tools that do not meet with approval from Arctic states, including market and trade mechanisms. Even if the EU cannot determine specific environmental standards in key sectors, it can thus influence other stakeholders through international cooperation and by setting a trend with ambitious green policies.

Given the complex relationship between the EU and the Arctic, assessing the EU’s potential role in relation to adaptive co-management of Arctic fjord systems will require developing an analytical approach that goes beyond the multilevel governance

perspectives that have often been used to analyse European policy making (Marks and Hooghe 2004; Stephenson 2013). In addition to addressing the interdependence of the EU with global institutions and institutional complexity (Stephenson 2013) and the need for capturing the role of local co-production of knowledge for multilevel governance (Homsy, Liu, and Warner 2019), the analysis for FACE-IT must consider the EU's limited role in the direct governance but substantial indirect impact on social-ecological systems outside its borders, including its role as a trading partner. A potential analytical framework would be to focus on the flows of ecosystem services from fjord systems to the EU as well as the flows of other assets between the EU and fjord systems, including money, technologies, norms, and knowledge. It would thus be an attempt to map EU-Arctic fjord relations as part of linked social-ecological-technological systems (Nilsson, Avango, and Rosqvist 2021).

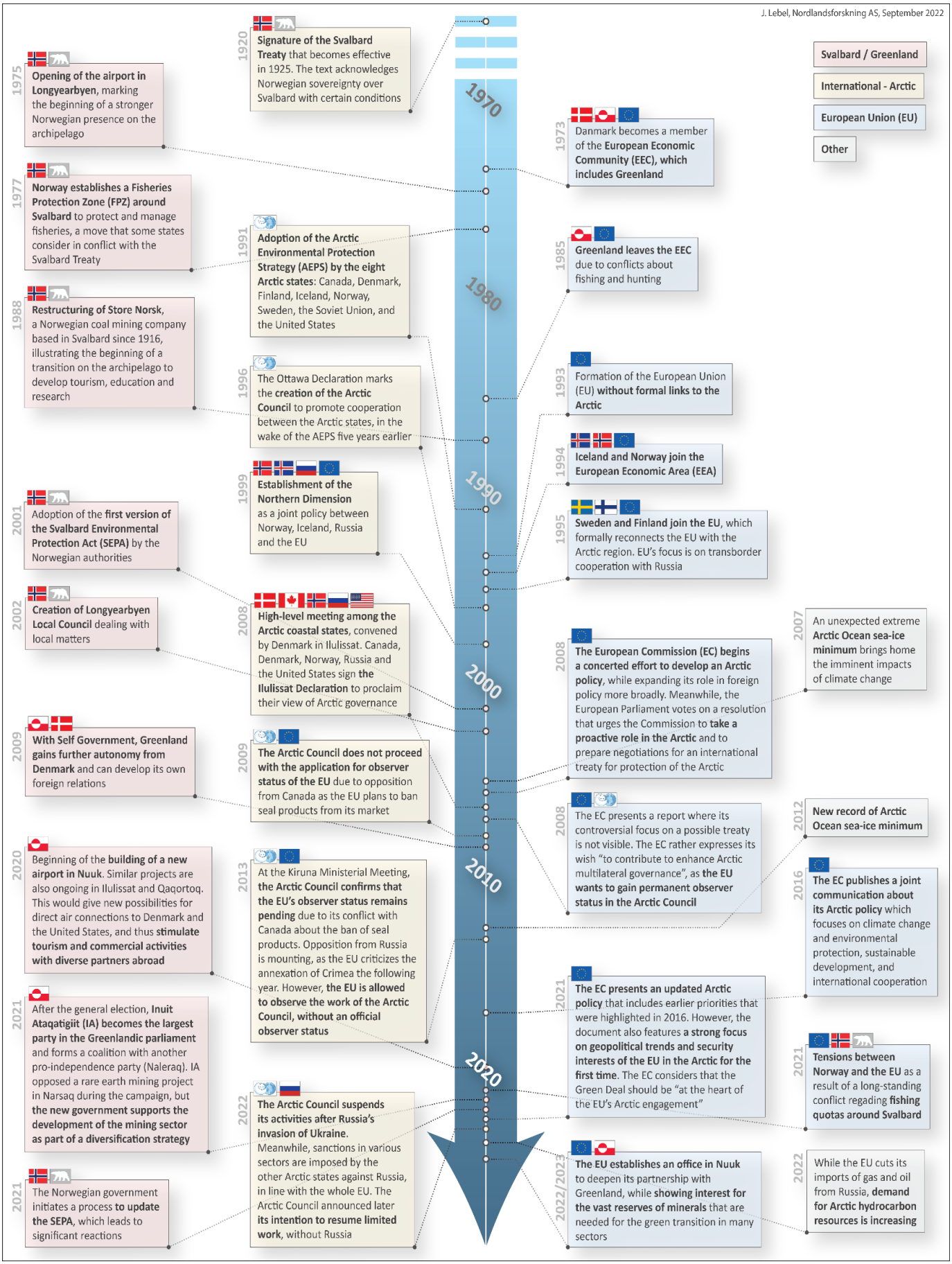
In addition to such systems analysis, more attention is needed to conflicting political priorities among various Arctic actors and how different ontologies affect the prospects of adaptive co-management (see e.g., Castro, Hossain, and Tytelman 2016; Veland and Lynch 2017). In the context of conflicting priorities, uncertainty and high political stakes in face of climate change and a transition away from fossil fuels have become more prominent and will likely continue to challenge the current, relatively benign, political climate of the Arctic region, and possible also existing governance arrangements. The Russian invasion of Ukraine in February 2022 has further complicated the geopolitical context and affected circumpolar cooperation in the Arctic. It corroborates the strategy of the EU to strengthen its presence and become a geopolitical actor in the region. It also reinforces the goals of peace, stability and prosperity as defined in the 2021 EU Arctic policy.

The issue of how different ontologies might affect decision making will be an important aspect of adaptive co-management in any Arctic setting but should be an especially relevant concern for the EU as an Arctic actor, given earlier experiences of mistrust. Trust is essential in developing adaptive co-management strategies, and there will be a need for further dialogue not only with Indigenous peoples' organizations but also with a diversity of local actors, whose perspectives are likely to differ from those of who view Arctic fjords from Brussels. It is beyond the scope of this paper to assess in detail how EU policies might interact with specific local adaptive co-management options. However, the growing literature on features of such management can be used as a

starting point for more detailed analysis of links between the EU and the case study locations in FACE-IT, including features related to trust building, institutional development, and social learning (Armitage et a. 2009). Attention to such features is well in line with the current EU Arctic policy goal of taking better into account the perceptions and the concerns of local populations, especially Indigenous people and to intensify ongoing cooperation.

This document provided insights from an initial mapping of the policy landscape and is written with an EU perspective in focus. Further work in FACE-IT will link this analysis to insights from fieldwork in FACE-IT's WP4, with its focus on livelihoods and food provision, and WP5, with its focus on nature-based tourism, both of which also include attention to the national political and policy contexts as relevant to the case study sites in Greenland, northern Norway, and Svalbard. The further analysis will furthermore engage with insights from FACE-IT's natural science research and expertise on Arctic fjord systems, the outcome of a planned policy dialogue meeting in the spring of 2023, and work in WP6 on exploring adaptive co-management options in the case study areas.

Figure 1. Timeline of the EU's engagement with the Arctic.



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