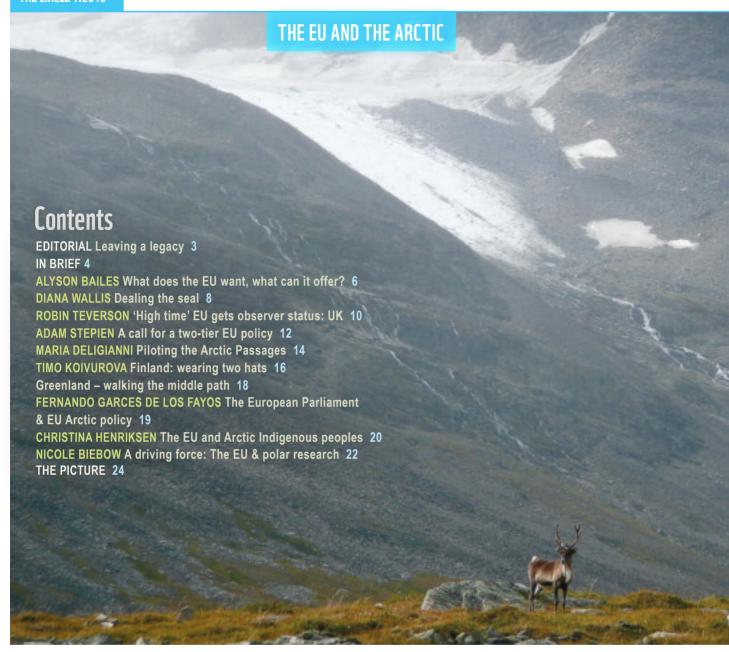


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Publisher: WWF Global Arctic Programme 8th floor, 275 Slater St., Ottawa, ON, Canada K1P 5H9. Tel: +1 613-232-8706

Fax: +1 613-232-4181

Internet: www.panda.org/arctic

ISSN 2073-980X = The Circle

Date of publication: February 2016.

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Design and production: Film & Form/Ketill Berger, ketill.berger@filmform.no

Printed by St. Joseph Communications

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COVER:

(Top:) Local on sea ice in Uummannag, Greenland. (Bottom:) European Parliament, Strasbourg, France.

ABOVE: Sarek glacier, Sarek National Park, Sweden. Photo: Kitty Terwolbeck/Creative Commons



Leaving a legacy

THE ARCTIC IS STREWN with the names of Europeans drawn by the lure of trade and riches -- Dutch explorer Willem Barentsz, Dane Vitus Bering, Britain's William Baffin, for example and there are hundreds more. Close behind them came fur traders, whalers, gold-seekers and others who left a legacy of Indigenous oppression and devastating ecological impacts.

After a couple of centuries of relative neglect, the Arctic is once again drawing Europeans and for many of the same reasons. At the same time, the region is at the very centre of debates on climate change as it warms twice as fast as the global average and drives global impacts such as rising sea levels and melting sea ice which is opening

up the Arctic Ocean and spurring renewed interest in Arctic resources and trade routes.

This time, however, the rule of international law is more entrenched in the Arctic, and the people of the Arctic are better prepared to defend their rights and interests.

As I write this, the European Commission is preparing to release a

"communication" that is expected to officially set out the EU's interests in the Arctic in the coming years. WWF provided input to this process that we hope will be reflected in this upcoming policy paper.

For example, WWF has recommended more research to help understand and predict Arctic change, particularly regarding ecosystems, the sustainability of fisheries and the transition from fossil fuels (especially diesel) to renewables for energy production. This should go hand-in-hand with support for investments in alternative socioeconomic models fostering economic diversification into sectors other than extractive industries.

The EU should also provide political support for nature conservation in the region, and for the creation and management of a pan-Arctic network of protected areas, including areas of particular ecological importance in terms of climate change resilience, communities and species conservation.

Wildlife products have long provided livelihoods for Arctic Indigenous peoples, and it is important to ensure that their use and trade is based on sustainable practices. The EU can do much to educate consumers on wildlife products, perhaps through certification schemes.

The EU should also enforce compliance of European businesses operating in the Arctic with international, EU and national regulations, as well as with Arctic-specific standards and guidelines to address marine noise, oil spill prevention, pollution, carbon intensity, and fisheries.

As well, many internationally agreed goals such as limiting global temperature rise to well below 2C, halting global biodiversity loss by 2020,

and establishing marine protected areas, will benefit the Arctic region, given its unique exposure to climate change and nature degradation.

In this issue,



GENEVIÈVE PONS is the Director of the European office of WWF.

our contributors examine the renewed European interest in the Arctic through

THIS TIME THE PEO-

PLE OF THE ARCTIC ARE

BETTER PREPARED TO

DEFEND THEIR RIGHTS

AND INTERESTS

the prism of the European Union – the economic and political bloc that includes 28 European countries.

Alyson Bailes lists some common interests of the Arctic and the EU, while Lord Robin Teverson argues that accepting the EU into its ranks would strengthen the Arctic Council. Diana Wallis reflects on past policies that haunt the EU's place in the Arctic today. When asked how the EU can contribute, member of the Norwegian Sami Parliament Christina Henriksen put it succinctly: "Buy our products, respect our rights and ensure our future."

This time around, the people of the EU can explore the Arctic's potential more ethically and sustainably than they did centuries ago. Instead of leaving their names on the map, they can leave a legacy of support for the Arctic environment, and for Arctic peoples. \bigcirc

Nunavut sealing industry gets federal boost

THE GOVERNMENT of Canada has pledged \$150,000 to promote Nunavut's ailing sealing industry and take advantage of Nunavut's exemption to the European Union's ban on seal products.

The funding is the first installment from the 5-year, \$5.7 million Certification and Market Access Program for Seals.

"I think it's a big step between Canada and Nunavut to be able to find different ways for marketing our seal products," Nunavut's Member of Parliament and the Minister of Fisheries and Oceans, Hunter Tootoo told the Canadian Broadcasting Corporation. "It's all about opening new markets for our Indigenous seal products."

The EU had imposed a ban on seal products in 2009 causing international demand and prices for sealskin products to plummet. In 2015 the EU approved the Government of Nunavut's application for an exemption to the ban under the Indigenous Communities Exemption of the EU Seal Regime. This means the Government of Nunavut will be able to certify that sealskins were harvested according to the rules of the exemption, thereby allowing Nunavut hunters to sell their sealskin pelts and products in the European market again.

Arctic Council support sought by environmental groups for heavy fuel oil ban

ENVIRONMENTAL GROUPS

want the eight circumpolar countries to take a stand on banning the use of heavy fuel oil, considered one of the greatest threats to the Arctic ecosystem.

"We believe that measures are desperately needed to reduce the environmental impacts from Arctic shipping, and that a logical place to focus attention is vessel fuel quality," said a letter from 15 international environmental

groups to the Arctic Council.

Heavy fuel oil powers almost all the large cargo ships that ply Arctic waters. Unlike other fuels, it doesn't evaporate but combines with seawater and expands in volume. It also sinks and sticks to anything it contacts, making cleanup impossible as seen during a recent spill in Russian waters that killed hundreds of seabirds.

"There's just no way to respond to it," said Kevin Harun of Pacific Environment, an environmental group that works with aboriginal communities to protect the Pacific Rim.

Burning heavy fuel oil also creates "black carbon," fine soot that falls on snow and ice and hastens melting. Cleaning up black carbon has been identified as one of the

Proposed Greenland mine lacks crisis plan: WWF



DISASTER PREPAREDNESS

plans are incomplete or missing for a zinc and lead mine proposed in the world's largest national park, according to an analysis by WWF-Denmark. The mine in Northeast Greenland National Park would require increased shipping through an openwater area important for narwhal, walrus, polar bears and bowheads. WWF is calling for a full contingency plan for shipping before consultation on the mine proceeds.

WWF found it "very troubling that the plans do not follow Råstofdepartementets Guidelines on preparation of the assessment of the effects on the environment." The guidelines stipulate that all studies conducted should be made public. WWF found several reports were not included in the consultation documents, other key studies were apparently not car-

ried out and several studies were incomplete.

Following WWF's criticism, the Greenlandic Cabinet, in cooperation with the company, Ironbark Zinc Ltd., decided to publish several of the missing reports on Ironbark's website. The area in question, in the northeast of Greenland, is an environmentally sensitive area which contains one of Greenland's main open water areas, the North East Greenland polynya.

easiest and quickest ways to slow the retreat of Arctic sea ice.

Reducing black carbon has been a top priority for the Arctic Council. However, the International Marine Organization which sets the rules for international shipping recently bowed to pressure from countries — such as Russia — which have large merchant fleets that use the fuel. The IMO left the issue out of the Polar Code it adopted last year.

"It's time for the Arctic Council to take the lead," Harun said. "It would be a very strong message to IMO if the Arctic Council were to recommend a (heavy fuel oil) ban."

WWF has been pressing council members and observers to include heavy fuel oils in an update to the polar code. The fuel is already banned in Antarctica and around the Norwegian Arctic Svalbard archipelago.

Last Ice Area and Pikialasorsuaq Commission

THE PIKIALASORSUAQ Commission – set up by the Inuit Circumpolar Council to examine the future of an area of open water between Canada and Greenland – held its first meeting in Iqaluit, Canada, in January 2016. This area, also known as the north water polynya, remains open



Zhupanova hydropower plant delayed

RUSSIA'S Presidential Executive Office has postponed plans for construction of a hydropower plant on the Zhupanova River for ten years.

The Ministry of Natural Resources and "RusHydro" – Russia's key agent in implementing hydropower development projects – have agreed that the Zhupanova HPP construction can severely damage the unique nature of the Kamchatka peninsula, drastically change the river's ecosystem and negatively affect

the territory of Kronotsky reserve, a site included in the UNESCO World Heritage List.

"WWF is very critical of this project," says Sergey Rafanov, head of Kamchatka/Bering Sea ecoregional office. "We insisted that the project be reconsidered because there are other, much more sustainable alternatives. The Zhupanova HPP project – with the construction of three dams – would annihilate the river's recreational and fishing potential and negatively affect all species inhabiting the river's basin."

The Zhupanova River is a pristine salmon and trout river on the southeast Kamchatka peninsula that also boasts brown bears, eagles, and other birds and wildlife. There is a small commercial salmon harvesting operation at the mouth of the river as well as a fly fishing tourist lodge. One type of fish caught on the Zhupanova is a very large rainbow trout caught on a "fly" that resembles a mouse. The fish also eat voles.

even in the middle of winter, providing a critical feeding area for animals, and food for Inuit from the region. The commissioners also attended a Last Ice Area workshop that brought together Inuit from Greenland and Canada to discuss management options for the ice around the polynya. This area is where summer sea ice is projected to last the longest, so while the polynya is important habitat in winter, the Last Ice Area will be important habitat in the summer.

What does the EU want, what can it offer?

One of the few things most people know about the European Union (EU) in the Arctic is that it has repeatedly been denied formal Observer status at the Arctic Council – the region's dedicated organ for cooperation. That may give the impression that one of Europe's strongest organizations is still knocking on the door of the Arctic from the outside. As ALYSON BAILES writes, that is not the case.

THE EU IS ALREADY interlinked with the Arctic at many levels: membership, partnership, trade, rule-making, and practical cooperation. Whether this complex relationship is optimally managed is a different question. Is the EU clear on what it wants from the Arctic process, and effective in pursuing it? Is it working as best it might for a peaceful, sustainable Arctic future?

ALYSON
BAILES is an
Adjunct Professor at the
University of
Iceland special

Iceland specializing in Nordic & Arctic security issues To start with the facts: three of the Arctic Council's eight member states – Denmark, Finland and Sweden – are full EU members. Two more, Iceland and

Norway, as members of the European Economic Area, belong to the Single Market and the Schengen Convention – agreements that make them part of the EU's single territory without internal borders or regulatory obstacles for the free movement of goods and services, and with a common visa policy.

The remaining three, Canada, Russia and the US, are key partners of the EU in trade, investment and other policy areas. All EU rules and agreements accepted by these countries apply

equally to their northernmost territorities and, indeed, to their Extended Economic Zones in the Arctic seas. This EU 'regulatory footprint' is particularly strong in the case of fisheries management – on which Greenland and the Faroe Islands, while not included in Denmark's EU membership, also have agreements with Brussels – and on climate change policy.

Given the way 'money talks' however, European economic and financial involvement is at least equally important. The EU is the leading foreign customer for oil and gas already produced in the Arctic by Russia and Norway, and

CONFLICT OR EVEN
VIOLENT COMPETITION AROUND THE POLE
WOULD BE BOUND TO
SPILL OVER SOUTHWARDS, BRINGING
STRATEGIC AS WELL
AS ECONOMIC RISKS

for Arctic catches of fish. It registers and insures a significant proportion of Arctic shipping and generates an increasing flow of tourism into the Arctic lands and seas. Brussels also supplies funds for cooperative projects from Russia to Greenland through its Northern Dimension regional programme and other cross-border frameworks in Northernmost Europe. It spends a large and growing amount on Arctic-related monitoring and research.

When the EU first began framing an Arctic policy in 2008-09, it made clear that its main interest lay in a peaceful Arctic future grounded in law-based cooperation. Conflict or even violent competition around the Pole would be bound to spill over southwards, bringing strategic as well as economic risks. Accordingly, the EU supports the Arctic Council's current policy of working as normally as possible with Russia on Arctic issues despite the Ukraine-related crisis.

Brussels has consistently backed other goals of the Arctic Council such as environmental protection and sustainable economic development, shipping safety, scientific cooperation, and the rights of Indigenous peoples. It can use its powerful regulatory clout and financial incentives to promote these. On other issues, such as its anti-whaling



Map: Ketill Berger, filmform.no • Source: Wikipedia, Natural Earth

policy and trade ban on seal products, the EU has sometimes clashed with Arctic interest groups. This was initially complicating its bid for Arctic Council observership, though recent moves have been made for compromise. On fisheries, the EU is close to the Arctic Council mainstream in believing that the exploitation of new ice-free waters should be delayed pending a full scientific assessment.

So far so good: but why then is the EU still not seen as a suitable Arctic Council observer? Politically, the latest complication is that the EU economic sanctions adopted during the Ukraine crisis have angered Russia and are, in fact, starting to block off some funding options for Arctic projects. The EU's problem here is that it has an overall stance towards Moscow in which the Arctic plays only a limited part, and its legalistic nature gives it less scope than a national government to vary its approach in different cases. At least temporarily, therefore, Brussels finds it hard to come forward as a clean-handed supporter of the Arctic peace it sincerely seeks.

There are also more mundane problems. The EU's 'diplomatic service' (the European External Action Service) claims coordinating rights over Arctic policy, but the more important practical fields like shipping, fisheries and climate policy development are run by the European Commission. Maintaining coherence is a struggle. Moreover, many EU nations have yet to take Arctic issues seriously and two of the front-liners -Denmark and Sweden - have mixed feelings about possible Brussels interference. Germany, the UK and France have only very recently defined their Arctic aims.

All this said, further delay over the Arctic Council Observership is more a symbolic than a practical block to stronger EU involvement. Much could be achieved by tighter coordination, more flexible funding, and a more sensitive grasp of Arctic partners' own aims and feelings.



Inuit hunter feeds his child with still warm meat from just hunted ring seal, Pond Inlet. Canada

Dealing the seal

One issue continues to cloud the EU's role in the Arctic. The sealskin trade issue has become emblematic of the Union's failure to maintain the interests of Arctic peoples. Former Member of the European Parliament DIANA WALLIS reflects on the campaign that has haunted EU-Arctic relations.

AS I WRITE THIS, it is the day after Christmas Day. In many rural communities in England this day is still marked by the so-called Boxing Day hunt, although the actual killing of a wild fox is now banned. I have often wondered whether, in 2008/2009 as the European Parliament's rapportuer on the proposal for a Regulation on the Trade in Seal Products, what the feeling would have been if the EU and not our Westminster Parliament had sought to achieve legislation which limited fox hunting. Of course, those who are adamantly against fox

hunting may not care who legislates, but there is a problem here and it should not be too easily dismissed. This is especially true with an entity like the EU, which is very much a legal construct only empowered by the Member States of the Union to legislate in accordance with the principles of subsidiarity and proportionality.

The main problem with the Regulation on Seal Products, from my point of view, was that it was never really clear what the European Parliament was legally trying to achieve, nor why we were doing it within a legal framework



meant only to regulate the circulation of goods in the European market. It now seems clear, thanks to the outcome of lengthy proceedings in the World Trade Organization (WTO), that if Europeans do not want seal products in their market based on cultural grounds or sensitivities, then that is their right, as long as the prohibition or exemptions to it are applied consistently.

However, the European legislative process was, at the time, less about products and much more about hunting, especially the hunting of seals in Canada. It seemed from the piles of letters that arrived in my office that a very active and competent animal rights NGO had instigated a huge campaign. Humane Society International, which has its origins in the U.S., was very successfully campaigning to get the European legislature to regulate an activity carried out in a third state: Canada. It seemed all the

SEALS HAVE GOOD PR, AGAINST WHICH, SADLY, INDIGENOUS PEOPLES CANNOT COMPETE

more strange given that there is also a large seal hunt in Namibia, but this was almost never mentioned as the concentration was on cruelty in Canada.

When I took the role as Parliament's rapporteur I did so on the basis of a track record of activity in relation to the Internal Market and a huge interest in Arctic affairs. Indeed, with others, I had been instrumental in several resolutions of the Parliament on Arctic issues, as we then thought the EU was edging towards membership of the Arctic Council. Every time the Arctic

was discussed in the Parliament there was huge emphasis on the rights of the Indigenous peoples of the Arctic. Here I thought was a chance to bring this together.

The proposed legislation purported to exempt seal products hunted by such peoples for subsistence purposes, but the fact that their products would be associated with a 'ban', seemed inevitably damaging to any genuine market. I started to formulate an alternative proposition based on a labelling regime, thus leaving the market and the informed consumer to decide. Even the 'ban' itself would require comprehensive labelling to maintain so it was not such an unworkable or burdensome alternative. To me it had the merit of offering some sort of lifeline to the fragile Indigenous communities, especially in places like Greenland. More importantly, I thought it better respected the proportionality and subsidiarity requirements that all EU law should meet.

Prior to the first vote in committee there appeared to be a broad coalition prepared to support this alternative proposition. However, animal rights



DIANA WALLIS is the President of the European Law Institute and British

former Member, then Vice-President of the European Parliament

activists had been busy contacting ministers in capitals and European political parties. It should also be recalled that this came in the run-up to European Parliament elections in June 2009. Every committee member had a hotel type hanger put on their door indicating the pros and cons of each side and later every parliamentarian was to receive a fluffy white toy seal bearing a label showing blood and the slogan 'doomed to die' even though these white seal pups had been protected by EU conservation legislation since the 1980s.

The legitimate aim of the legislation was opaque; it was constructed finally not as a 'ban' or 'prohibition' but rather as an indication as to what goods could be placed on the EU market; that was those complying with the so-called 'Inuit exception'. Working out how that exception applies has proved difficult in the subsequent legal wrangles. Clearly the legislation was not a conservation measure; the seal populations are not under threat, indeed fishermen will tell vou there are too many eating too much fish! If it was an animal welfare concern then seals as wild animals were likely to end up with similar or greater protection than any animals reared commercially in the food chain for consumption of their meat. If the issue was a cultural one, like the ban on cat and dog fur products, then again this seemed at first encounter unbalanced given that cats and dogs are family pets in Europe, seals are not. There is no doubt, as I finally remarked, that seals have good PR, against which, sadly, Indigenous peoples cannot compete.

Images of Inuit women sobbing in my office, distraught at what might happen in their communities, remain with me from the process as does the shocked silence during a telephone call with a Canadian minister as she began to comprehend that a transnational legislature in another continent could intervene in the commercial activities of her country.

Aside from the damage to these Indigenous communities, there was damage to the EU's credibility as a legitimate Arctic actor. There is little doubt in my mind that is why the EU, six years on, has not progressed to becoming an official observer of the Arctic Council let alone a full member. Of course, Canada's new government may now take a different view.

The whole process left me wondering about EU law-making. Of course, if a measure has popular support politicians must give way, but it should be informed and legal. Also, human and animal rights should be carefully balanced. Let me put it this way, I ride horses but I would never join a hunt, nor would I want to see the EU legislating about such domestic UK matters; even more so if my country were not a member of the EU! \bigcirc

'High time' EU gets observer status: UK

Gone are the days of the 19th and early 20th century when Britain's Royal Navy ruled the seven seas and saw itself as the world's peacekeeper through flying the flag or – on occasion – using its gunboat diplomacy. Also gone are the days when British explorers were among the few that first mapped the most remote and inhospitable regions of our planet. While the balances of power have changed, as LORD ROBIN TEVERSON points out, geography has not.

BRITAIN IS STILL the nearest neighbouring non-Arctic state. The northernmost tip of the British Isles, the Shetland Island's 'Out Stack' or Oosta, is a mere 320 nautical miles south of the Arctic Circle. The Arctic remains a part of the UK's backyard. What happens there – climate change, pollution, security, shipping routes, or territorial claims – has a knock-on effect on British interests.

This is why the House of Lords took the decision in 2014 to set up a select committee to scrutinise the Government's policies for the High North. We set about our task by taking evidence in parliament while members visited the Yukon, Iceland, Tromsø and Svalbard.

The impetus for our enquiry was one of change. The Arctic is the region of greatest transformation on our planet – the fastest rising temperatures, melting ice, increasing mineral exploration, the start of mass tourism, and opening sea routes.

From a diplomatic point of view, Britain may still be a major player in research and an observer at the Arctic Council. However, its historic activity is at risk of being eclipsed by the welcome interest of more distant nations, not least from Asia.

THE EU IS A MAJOR SUPRANATIONAL POWER THAT CAN ACT AS AN IMPORTANT COORDINATOR OF EXTERNAL ACTION

As the committee undertook its work it also became clear that the UK had wider interests in the High North: London is a global centre of business, finance and insurance; it is the head-quarters of the International Maritime Organisation and OSPAR (the Convention for the Protection of the Marine Environment of the North-East Atlantic); we have a long history of polar science and expertise from the North Sea on gas exploration.

The British Government produced its own Arctic policy document in 2013. It was cautiously called a 'policy framework' – avoiding the word 'strategy' so as not to be seen as too bold. But did this reticence risk sending out a signal of indifference to the rest of the world?

That same year the Arctic Council expanded the number of its observer



states with the admission of China, India, Japan, South Korea, Singapore and Italy. Instead of being one of four original observer states, the UK was now one of twelve.

Our recommendations were wide ranging:

- the UK should appoint an Arctic Ambassador to coordinate the UK's North Polar activities and raise our northern game
- there should be a moratorium on fishing in Arctic international waters

until the ocean's ecology is far better understood

the UK's contribution to polar

THE MOVE TO A PERMANENT OFFICIAL ROLE HAS BEEN SOURED BY THE DISPUTE WITH CANADA OVER SEAL PRODUCTS.

research should be increased, especially regarding permafrost thaw

the fall in oil prices should be an opportunity to pause offshore exploration to resolve the very real environ-

mental dangers.

■ the Arctic Council should continue to receive the full support of the UK in its work as a successful



ROBIN TEVER-SON is a Liberal Democrat politician in the British parliament's

House of Lords

Photo: Keith Edkins, Wikimedia Commons

regional organisation of governance

- the USA should ratify the UNCLOS treaty (the United Nations Convention on the Law of the Seas) that will determine the many territorial claims around the Pole
- the UK should work to help isolate other wider geopolitical problems. The Crimean annexation took place during the work of the committee but Arctic cooperation needs to continue despite wider tensions.

There were many other recommendations, not least supporting the robust involvement of the Indigenous peoples of the Arctic. But we also strongly recommended that the European Union should at last be given full observer status at the Arctic Council.

It could be argued that with Denmark, Sweden and Finland as full members of the Council, and seven other EU states as observers, it is hardly necessary. But the EU is a major supranational power that can act as an important coordinator of external action: it has one of the world's largest research budgets and it is a key player in fisheries management in northern waters adjoining the Arctic.

The EU has been an 'ad hoc' observer since 1998. The move to a permanent official role has been soured by the dispute with Canada over seal products. Now that this has been resolved, it is the EU's robust reaction to Russia's intervention in Ukraine that is proving to be the barrier.

There is no doubt that the EU as a fully-fledged observer would be beneficial to the Arctic's future and strengthen the Arctic Council itself.

The Arctic Council is young in terms of international organisations and has a good track record of success. It is in the interest of all countries, including the UK, that the Council increases its authority and is successful as the Arctic undergoes continued rapid change. \bigcirc

A call for a twotier EU policy

In 2014, the European Parliament called for the formulation of a "united EU policy on the Arctic" and a "coherent strategy and concretized action plan on the EU's engagement in the Arctic." The Council of the European Union also requested the European Commission to further develop "an integrated and coherent Arctic Policy".

However, as ADAM STEPIEN observes, it appears nobody knows how to accomplish such a coherent approach.

SINCE THE END of 2014, the European External Action Service (EEAS) and the European Commission have been working on a new policy document. The new communication is likely to build on priorities proposed in earlier statements, but a more explicit distinction between the two geographic policy spaces -European Arctic and pan-Arctic issues - may also be expected. But that may, however, not go far enough to promote greater coherence in EU Arctic activities and address diverse challenges related to the EU-Arctic nexus. Therefore, the EU policymakers should consider a twotier structure for future Arctic policy.

These two tiers would be: a general policy for the Circumpolar Arctic and a focused strategy for the European Arctic. The latter would address chosen challenges associated with Arctic environmental and socio-economic changes, as they are manifested in Europe's northernmost regions.

The EU has been formulating its Arctic policy since 2008. Its interest was originally related to the predicted climate-driven, profound environmental changes such as melting sea-ice, as well as overblown expectations for a boom

"THE EU ARCTIC POLICY APPEARS MESSY, UNFO-CUSED AND INCIDENTAL"

in resource extraction and shipping. As a result, the EU focused on the Arctic Ocean environment, resources and international cooperation. This focus is still dominant.

However, over time the policy encompassed topics relevant for the European Arctic including regional development, terrestrial transport, mining and the Indigenous Sámi issues. Actors from Europe's northernmost regions had pointed out that the EU policy ignored part of the Arctic, which is inhabited by EU citizens and directly affected by EU legislation, policies and programmes.

The EU Arctic policy has so far mixed up the two distinct spaces: Circumpolar and European Arctic. That partly contributed to analysts' and Arctic stakeholders' disappointment with consecutive EU policy documents, which lacked concreteness and focus.

EU policy-making for the Circumpolar Arctic and European Arctic entails dealing with two different sets of issues and engaging different stakeholders. Circumpolar Arctic questions are primarily of maritime nature where the EU is a secondary actor, while European Arctic challenges are chiefly terrestrial and the EU is there a key player. When the calls for a "coherent strategy" are voiced, usually they refer to the European Arctic space.

A solution would be to bring under one framework two distinct approaches and organizing EU Arctic engagement into a two-tier "policy + strategy".

A Circumpolar Arctic policy-tier would retain the current set of general, vague objectives. It would include maritime issues, climate change mitigation, climate and ocean research, earth observation, involvement in the Arctic Council, and the EU's role in shaping Arctic-relevant international norms, such as for Arctic shipping or long-range pollution.

A focused strategy for the European Arctic constitutes the second tier. It would address challenges arising from Arctic change as they are manifested in Europe's northernmost regions. A short list of specific goals or targets would be identified together with Nordic states, northernmost regions and local stakeholders. Concrete action plans have to be agreed on. All relevant actors need to commit to the targets and to the implementation of actions.

Several possible goals for the strategy-tier could be envisaged. Actors have to jointly address climate adaptation in Europe's fastest warming region. Among targets could be the North-South and intra-regional transport networks, digital connectivity, as well as tackling developmental or demographic problems specific to this sparsely populated area. The challenges faced by the Sámi also have to be highlighted, including energizing traditional livelihoods in light of expanding resource extraction.

The strategy-tier is likely to emphasize economic development, as that is the approach promoted by many regional stakeholders. Embedding the European Arctic strategy into the general Arctic policy could help to safeguard the balance with environmental priorities. Otherwise, the environment might get lost between the lines.

There are a number of issues that are relevant from the point of view of both pan-Arctic cooperation and the European Arctic development. These include cooperation within the Barents region (Barents Euro-Arctic Council, where the Commission is a full member), crossborder transport networks extending to Russia and Norway, and pan-Arctic business and NGO cooperation. A two-tier policy would deal with these issues better than two disconnected policies for the Arctic and for Northern Fennoscandia.

Iceland and Norway are the European Economic Area members and Norwegian regions are particularly closely linked to the EU territories. If willing, these states should fully participate in the drafting and implementation of the strategy-tier.

The strategy-tier has to have added value in relation to existing structures such as the Northern Dimension, regional cooperation, and cross-border programmes, for example Northern Periphery and Arctic Programme. No new funding mechanisms or bureau-

EU POLICY-MAKING FOR
THE CIRCUMPOLAR ARCTIC
AND EUROPEAN ARCTIC
ENTAILS TWO DIFFERENT SETS OF ISSUES
AND ENGAGING DIFFERENT STAKEHOLDERS.

cracy should be proposed, as they are unlikely to be established. Instead, the strategy could streamline existing financing, prevent duplications and in the long-term affect priorities of funding instruments. The formulation and implementation of the strategy could also influence general EU sectoral policies, insofar as they have distinct implications for the European Arctic.

The two-tier policy requires organizational adjustments. Currently, the European External Action Service and the DG Maritime Affairs and Fisheries coordinate Arctic policy-making. That would continue to be the case for the first tier of the EU Arctic policy, where the focus is on maritime and external affairs. The

strategy-tier should be led by the Commission's units responsible for regional development, transport or environment. In addition. establishing a network of national contact points or a stakeholder forum could be considered.



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land, Finland.
He works on Arctic governance, Indigenous politics and the EU-Arctic nexus.
He was a co-editor of the 2014 "Strategic Assessment of Development of the Arctic".

A two-tier structure would allow the "EU Arctic Policy" to better accommodate diverse interests and to make a tangible difference in various EU Arctic-related activities, without causing anxiety among Arctic states and other actors. Nevertheless, this is arguably an ambitious approach. It calls for a more comprehensive way of thinking about the EU-Arctic nexus and for a different coordination of Arctic portfolios within EU services. \bigcirc

The opinions expressed here are based on the author's analysis published by The Arctic Institute.

Piloting Arctic Passages

Melting sea ice is reviving the centuries-old dream of an Arctic "silk route" connecting European or North American ports to Asia. With navigating the Arctic becoming a reality, MARIA DELIGIANNI says European shipowners need more investments in infrastructure and technology.

PRECAUTIONS NEED to be taken to ensure safety of life at sea and the sustainability of these highly sensitive environments is not compromised. While the International Maritime Organisation (IMO) remains the primary regulator for the shipping industry, the

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(ECSA)

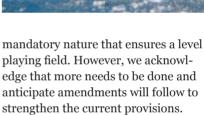
European Community Shipowners' Associations (ECSA) endorses the actions taken by the European Union towards the development of a policy on Arctic issues,

especially in increasing knowledge of the region and investing in research and development.

The Polar Code was intensely debated by the IMO for more than four years before adoption in 2014 by its Maritime Safety Committee (MSC). From the beginning European shipowners underscored that a mandatory and uniform regulatory framework is a prerequisite to ensure maritime safety and environmental protection, as polar shipping grows in volume and diversifies in the coming years. This is the single, most expeditious solution to achieve coordination and harmonisation of national legislation.

As European Shipowners, we support that the risk-based approach followed by the Polar Code will indeed boost the level of confidence in the safety and environmental performance of shipping. As of 2017, we are set to comply with IMO requirements by carrying onboard the Polar Ship Certificate stating the adequacy of the vessel to navigate in the region and the Polar Water Operational Manual – an essential tool in evaluating the anticipated range of operating conditions and hazards to ensure the decision-making process onboard is adjusted accordingly.

The Code has been criticized for a number of omissions on issues such as heavy fuel oil use by vessels, the lack of invasive species' protections and sufficient oil spill response requirements. We consider the Polar Code to be the first decisive step by the IMO at this stage. The importance of the Code is its



It is unrealistic to believe that the Arctic will be immediately accessible as sea ice disappears. Firstly, an ice-free Arctic Ocean year-round is false, as sea ice will always re-form during winter and ice properties and coverage will vary greatly within the region. There are also many other challenges that shipowners encounter such as polar darkness, poor charts, lack of critical infrastructure and navigation control systems, low search-and-rescue capability, and other non-climatic factors.

Therefore, development of the appropriate regulatory framework should be accompanied by reinforced infrastructure and technology. Other critical investments include: improved navigation aids; accuracy of nautical charts; weather forecasts; monitoring of drifting ice and icing conditions as well as search and rescue infrastructure for defined incident scenarios. These





are just some of the critical factors that need to be addressed in a region in which extreme weather events are routine occurrences.

Maintaining a positive reputation for operators, as the area is increasingly exploited, is also a challenge. Maritime transport and energy extraction depend on both local and global acceptance of increased industrial activity in the Arctic. Investment in relationships is imperative for local and global acceptance of increasing industrial activities in the Arctic. This confidence can be built through investments in ice research, forecasting and communications to ensure operational risks can be properly assessed and mitigated. A broad focus on knowledge and research is also

WE CONSIDER THE POLAR CODE TO BE THE FIRST DECISIVE STEP BY THE IMO AT THIS STAGE.

crucial for increasing activities in the Arctic.

As demonstrated by the successful development of the Polar Code, IMO is the appropriate forum for developing standards for ships operating in the Arctic. It has the necessary legal and technical expertise to take full account of the interests of all maritime nations, including those with an Arctic coastline.

Discussions on an EU Policy on arctic issues are also gaining momentum. In principle, we endorse the three pillars identified by the 2012 Joint Communication Commission and High Representative of the EU for Foreign Affairs and Security Policy: support research and channel knowledge; act with responsibility; and intensify the constructive engagement and dialogue with Arctic States. We also acknowledge EU's actions in becoming one of the key investors in the region by exploring further investment and research priorities.

The EU could play a prominent role in addressing some of these challenges through the development of satellite communication and tracking and monitoring systems to ensure safe navigation and enable search and rescue (SAR) operations. This could take place through Galileo and Copernicus, the global navigation satellite system which provides a highly accurate, global positioning service.

In addition, a highly-developed infrastructure of geographical information through the creation of a digital atlas of the Arctic should be established. Compiling geographical information and obtaining a complete picture of what is happening at a given location (maps, charts, records, etc.) is also crucial. This data should be collected, maintained and made available in the most effective manner, perhaps through the Arctic Information Center the European Commission is considering.

The EU could also develop a platform to pool data on the state of the seas in and around Europe and high-resolution sea-bed mapping. This would further assist in establishing safe transport routes in Arctic waters.

Last but not least, it is clear that future initiatives in the Arctic will necessitate an increase in maritime training capacity. Specialised courses focusing on High North/Arctic operations should be enhanced to offer relevant and qualified manpower in the offshore and maritime domain. Improved competence requirements and standards will ensure there is knowledge and understanding of Arctic conditions. The EU could play a prominent role in developing these programmes.

Shipping activities in the Arctic must take place within the framework of uniform regulatory framework and adequate infrastructure that ensures quality shipping among all operators in the region. Any maritime accident in the vulnerable Arctic is an accident that affects us all. \bigcirc

Finland: wearing two hats

Finland is a member of both the EU and the Arctic Council. It is an active participant in the European integration project – the process of industrial, political, legal, economic, social and cultural integration of states through the European Union. TIMO KOIVUROVA says although Finland is a "small actor" in the EU, he writes that this country has – with some success – played its "northern card" to pursue its own interests and policy goals while encouraging the EU to pay more attention to Arctic issues.

FINLAND JOINED the EU in 1995 after a referendum which saw nearly 57% of Finns supporting membership for mainly commercial and political reasons. Most of Finland's trading partners were located in EU member states. Finland was recovering from the collapse of the Soviet Union and the Nordic banking

PROFESSOR TIMO KOIVUROVA is a director of the Arctic Centre of the U of Lapland, Finland. His expertise includes Arctic legal & governance questions, environmental law & Indigenous rights.



crisis in the early 1990s, and EU membership can be seen as a natural evolution of Finland's foreign policy. Since the 1950s, foreign policy decisions have been cautiously - due to the delicate relationship with the Soviet Union but consistently establishing ties with Western intergovernmental institutions, culminating with EU membership. It was also significant that Finland, Norway and Sweden decided to pursue EU membership at the same time. Finland had strong international co-operation with the Nordic states prior to EU membership with especially good economic and social ties with Sweden.

Finland has been generally supportive towards deepening the role of the EU as an economic and political union. Compared with other Nordic states, Finland has clearly been the most EU-minded. It is the only Nordic country that joined the monetary union, adopting the Euro as its currency while Sweden and Denmark remained outside of the Eurozone. Norway and Iceland have ties with the EU through the European Economic Area Agreement, but Norway has twice rejected EU membership while Iceland has ended its membership negotiations, which commenced after the island nation was struck by the banking crisis.



In the last two decades, major political parties in Finland have favoured EU membership, with the exception of the populist Finns party, which is currently in government. The Finnish people have also been fairly supportive of EU membership although those critical are often unhappy with the extensive range of EU legislation regulating many aspects of Finnish economic and social life.

What, then, is the influence of a small Nordic country on this pan-European regulatory framework, now crucial for Finland? A member state's influence in the EU is, to a great extent, based on how the country actually pursues its policy goals and interests in the Union. Finland is considered to be fairly active. Finns emphasize efficiency and openness of decision-making and they have a reputation of implementing EU legislation in an effective manner.

Finland also has a strong track record as an active participant in Arctic cooperation. Finland proposed and led the initiative to launch the 1991 Arctic Environmental Protection Strategy (AEPS) between the eight Arctic states. This strategy was later adopted by the current Arctic Council. However, while Finland has significantly contributed to the work of the Council, it is not a major player in Arctic politics compared with Arctic Ocean coastal states and especially major Arctic powers such as Russia, Canada and the United States.

Finland attempted to merge these South-Western and Northern policy directions through the successful proposal of the Northern Dimension policy for the EU. Since 2006, the Northern Dimension has been resuscitated as a joint policy between the EU, Iceland, Norway and Russia.

Finland has also been very supportive of making the EU an Observer at the Arctic Council. The EU's increased presence and funding could support Finnish policies and socio-economic needs, including research, maritime governance, the development of Europe's northernmost regions and Finnish stances on Arctic climate change and environmental conservation.

There are no real tensions or contradictions arising from Finland being a member of both the EU and the Arctic Council. The Arctic Council's influences largely comprise scientific assessments and guidelines and the co-operation

does not entail any legally binding obligations. However the Arctic Council has recently catalysed two legally binding agreements between the eight Arctic states on search and rescue and oil spill response. More are likely for the future. Therefore, the EU institutions need to make sure that any legal obligations are in accordance with what Finland and other EU members have committed themselves to in EU law. So far, no problems are apparent given that both new legally binding agreements are based on existing global treaties that are already part of EU law.

However, if the Arctic Council were to transform from an intergovernmental forum into a treaty-based intergovernmental organization with legal decision-making power – a scenario Finland proposed in its 2013 Arctic strategy for the Arctic states to seriously consider – there would need to be clearer understanding of possible member states' duties to co-ordinate their Arctic policies within the Arctic Council and to pay attention to the duties set out by the EU's legal system. \bigcirc





Greenland - walking the middle path

THREE OF THE ARCTIC COUNCIL countries are members of the EU, but one of them has a particularly complex relationship with the trading bloc. Denmark is a member of the Arctic Council largely because Greenland is part of the kingdom of Denmark. However, Greenland is not part of the EU. The mostly independent Arctic island formally withdrew from the European Economic Commu-

nity (the forerunner of the EU) in 1985, but is still associated with the Union. This association gives each side some particular benefits. For Greenland, the most obvious is money.

Through the EU-Greenland Partnership (2014-2020), €217.8 million will come from the EU to the Greenland government. Much of the money is earmarked for education and training.

In allocating the money, the European Council notes, "Union financial assistance, allocated through the partnership, should bring a European perspective to the development of Greenland and should contribute to the strengthening of the close and long lasting ties with it, while strengthening the position of Greenland as an advanced outpost of the Union, based on the common values

and history which links the partners."

The money is a bump up from a previous agreement between the EU and Greenland that sent 25 million euros a year to Greenland's government. Some observers have suggested that the agreements in effect help buy the EU access to Greenlandic resources at a time when the Arctic is increasingly seen as a resource and a strategic crossroads. The latest agreement was signed following some public musings from Greenland's former premier about the EU commitment to Greenland, on the heels of an unprecedented 3-day visit to Denmark by former Chinese leader Hu Jintao.

A joint declaration on relations between the European Union and the Government of Greenland and the Government of Denmark, signed March 19th, 2015 stated their intention to continue and further strengthen their relations and cooperation in the following areas:

- 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
- 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. ○

https://ec.europa.eu/europeaid/sites/devco/files/signed-joint-declaration-eu-greenland-denmark_en.pdf

The European Parliament & EU Arctic policy

The European Union may have a relatively small territory above the Arctic Circle but FERNANDO GARCES DE LOS FAYOS says it has always been an important and engaged Arctic actor. In terms of Arctic research he notes the EU, along with the EU Member States, is one of the leading forces in the world. He argues that the Union works hard to encourage international research collaboration with its sectoral policies, and its cross-border actions have a significant impact on the Arctic region.

THE EU ARCTIC POLICY has been built gradually since 2008 in a process that is still ongoing. From the outset, the EU Arctic policy was meant to be a common enterprise of the EU institutions and the EU Member States, open to inputs from other Arctic States and other Arctic stakeholders. Its first building block, the 2008 European Commission Communication on the EU and the Arctic, was the result of a vast consultation exercise. A second Communication in 2012 consolidated the EU Arctic policy, maintaining three basic priorities:

- support research and channel knowledge to address environmental challenges, most notably climate change in the Arctic;
- Act with responsibility to assist in ensuring economic development in the Arctic is based on sustainable use of resources and environmental expertise;

IN TERMS OF ARCTIC RESEARCH, THE EU IS ONE OF THE LEADING FORCES IN THE WORLD

intensify its constructive engagement and dialogue with Arctic States, Indigenous peoples and other partners.

The European Parliament (EP) has agreed with this basic line and has provided valuable input into the construc-



FERNANDO GARCES DE LOS FAYOS is a Senior parliamentary policy analyst with the European Parliament

tion of the EU's Arctic policy. On top of regular questioning of the European Commission and the European External Action Service (EEAS) whilst reflecting Arctic concerns in the work of its different Committees, three key resolutions have channelled the main views of the EP on Arctic policy, i.e. 9 October 2008, 29 September 2011 and 12 March 2014. The latter EP resolution (2014), along with the Council of the EU Conclusions of 12 May 2014, asks for a new Communication, taking into account the recent developments in the Arctic and in EU action in the Arctic.

The EP went a step further asking for the new document to be a proper EU strategy for the Arctic region, in line with the national Arctic strategies of EU Arctic and non-Arctic Member States. The new Communication was expected by the end of last year but it has still not been issued at the time of writing (mid-January 2016), probably because the text needs to reflect the achievements and new avenues opened up by the 21st Conference of the Parties of the UN Framework Convention on Climate Change (UNFCC) held in Paris in December, 2015.

The EP is eager to see how the new Communication reflects the recommendations that it called for in its 2014 Resolution. Several of these recommendations refer to Arctic Indigenous Peoples and other citizens living in the Arctic. The European Parliament:

- emphasises that the EU must take into account the need for raw material activities to provide local benefits and garner good will with the Arctic populations;
- urges the Commission to proceed with the establishment of an 'EU Arctic Information Centre';
- recommends strengthening regular exchange and consultations on Arcticrelated topics with regional, local and Indigenous stakeholders of the European Arctic in order to facilitate mutual understanding;
- stresses that maintaining developed and sustainable communities in the

Arctic with a high quality of life is of the utmost importance, and that the EU can play a vital role in the matter;

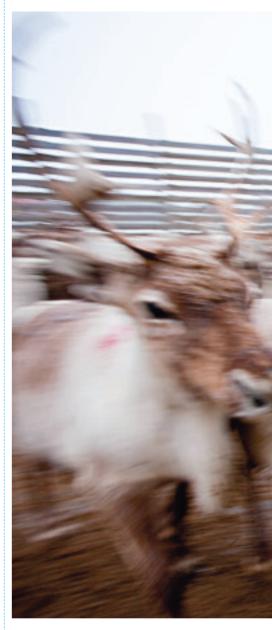
- Acknowledges the wish of the inhabitants and governments of the Arctic region, with sovereign rights and responsibilities, to continue to pursue sustainable economic development while at the same time, protecting the traditional sources of the Indigenous peoples' livelihoods and the very sensitive nature of Arctic ecosystems. The EP also "regrets the effects which the EU regulation relating to the ban on seal products has produced for sections of the population, and in particular for Indigenous culture and livelihood".
- supports the meetings held by the Commission with the six associations of circumpolar Indigenous peoples that are recognised as permanent participants in the Arctic Council;
- Underlines the importance of supporting the development of cooperation networks between higher education institutions within and beyond the region, providing opportunities for research funding in order to bring about sustainable economic development in the regions of the Arctic.

Several other recommendations regarding the Arctic environment can be summarised with the following one:

■ The European Parliament stresses that the increasing use of the Arctic region's natural resources must be conducted in a way which respects and benefits the local population, both Indigenous and non-Indigenous, and takes full environmental responsibility for the fragile Arctic environment.

Another way in which the EP interacts with the Arctic is as a member of the Conference of Arctic Parliamentarians, which brings together parliamentarians from around the Arctic, and is an observer at the Arctic Council. \bigcirc

The opinions expressed are those of the author.



THE SÁMI PEOPLE INHABIT almost half of Norway and Sweden, the northern part of Finland, as well as North-West Russia. A large percentage of the Sámi are EU citizens, and those residing in Norway are affected by EU decisions through the European Economic Area (EEA) agreement. The Sámi are the only Indigenous people within the European Union and up until recently, the EU commitment to the Sámi has been limited to regional cooperation and project funding.

Throughout the last decade, the European Union has put heavy efforts into joining the Arctic Council as an observer. That has proved challenging, as the



Global binoculars are fixed on the Arctic. What was previously ignored as a cold wilderness is hotter than ever. The Arctic Council overflows with inquiries from parties wanting to take part in all the exciting things that might happen "up there." CHRISTINA HENRIKSEN says the European Union – longing for Observer status in the Arctic Council – has suddenly realized the Arctic is inhabited, by Indigenous peoples, among others. How can the Indigenous peoples benefit from the EU participation?

EU discovered that among other things, its ignorance regarding Indigenous peoples in the Arctic was a barrier. Banning the import of seal products in 2009 was a tough hurdle for the Union, and the Gwich'in representative was succinct when asked at the First Arctic Dialogue

Workshop in Brussels in 2010 what the EU could do for the Indigenous peoples in the Arctic. Quite simply, he said: "First, drop the seal ban."

The EU seal ban demonstrated the lack of knowledge among European decision makers regarding the Arctic and its inhabitants by the absence of Indigenous peoples' voices in Brussels. The seal ban was amended in 2015, as a result of the EU acknowledging that a sincere dialogue with Indigenous peoples is necessary to play the Arctic game. The WTO called the Inuit seal hunt "too

THE EU SEAL BAN DEMONSTRATED THE LACK OF KNOWLEDGE AMONG EUROPEAN DECISION MAKERS REGARDING THE ARCTIC AND ITS INHABITANTS BY THE ABSENCE OF INDIGENOUS PEOPLES' VOICES

commercial", but how are Indigenous peoples supposed to survive if we cannot make a living of our own trades and cultures? If an environmentalist decided to cry out for Rudolph, would the EU ban import of reindeer products? Hopefully not, because the EU should encourage the import of these products. Reindeer meat and wild fish are healthy

CHRISTINA
HENRIKSEN is a Member of the Sámi Parliament in Norway, representing the Norwegian Sámi Association (NSR) and the Sámi Peoples' Party

and ecological, and by increasing their import, the EU would contribute greatly to the development of the Sámi society.

While the first Arctic Policy more or less

implied preservation of icebergs and polar bears, the human aspect is now a larger part of the policy. That is indeed a step in the right direction. The Policy is being renewed, though the main objectives remain. It is still about international cooperation and preserving and protecting the Arctic (with the peoples who live there), but what it all comes down to is promoting sustainable use of resources. This is the tricky part since the Arctic is viewed as a great source of raw materials and renewable resources.

Climate changes daily affect Indigenous peoples globally. Our ways of living are affected. World leaders worry about climate changes, but these changes also represent certain opportunities. If the tundra melts, then access to minerals is easier. If the sea ice melts in the North-East Passage, then cargo ships from Europe to Asia might get faster (and perhaps cheaper).

Europe and the world need minerals. Recycling is not enough and new extraction projects are needed. Yet, the inhabitants of the Arctic are rarely mentioned. If we are, we might be referred to as obstacles. We might say no. We say no when our land and livelihood are in danger of being ruined for easy profits. That is our right, and national states worldwide have acknowledged that right, through supporting the UN Declaration on the Rights of Indigenous Peoples and the Outcome Document of the UN World Conference on Indigenous Peoples. So did the EU, and according to the European External Action Service, the EU will do its share to make sure that the decisions and recommendations of the UN World Conference on Indigenous Peoples document will be implemented, because Indigenous peoples' rights is a clear priority for the EU.

The EU demanding that the principle of free, prior and informed consent is followed when economic activities are planned in areas inhabited and used by Indigenous peoples would be a way to implement this. Making sure that international legislation and the rights of Indigenous peoples are mentioned in every discussion on extraction of raw materials would also be welcomed. The EU could also raise its voice to ensure environmental standards are followed in industrial projects while pushing its member states to ratify the International Labour Organization Convention No 169. This convention recognizes Indigenous peoples' right to self-determination within a nation-state, while setting standards for national governments regarding Indigenous peoples' economic, socio-cultural and political rights, including the right to a land base.

So how can the EU contribute? Buy our products, respect our rights and ensure our future. \bigcirc

A driving force: The EU & polar research

Over the past decade the European Union has become one of the largest funders of Arctic research through numerous collaborative projects, coordination activities and support to infrastructures. NICOLE BIEBOW says this has established a rewarding interplay between the scientific community and European policy makers.

AS THE ARCTIC CHANGES the European Union and its executive body, the European Commission (EC), are placing increasing importance on science and innovation in the high latitudes – for a variety of reasons.

Changing weather patterns and climate, for example, are altering the sensitive ecosystem in the Arctic. Climate change triggers feedback processes which will have an impact on the global climate system. Europe will consequently be directly influenced by those changes – colder winters being only one of the anticipated effects. Understanding these feedback loops and their implications for European society, improving predictive climate models and reducing exist-



A curious polar bear investigates an instrument tower on sea-ice.

ing uncertainties have hence become vital.

But changes in the Arctic also present economic opportunities for local communities, Arctic nations and Europe at large. Thus the European Union has an interest in a continuous, but sustainable development of the Arctic. Science-informed decision making is key to safeguarding the fragile ecosystems of the North, to limit risks and to enable adaptation of local communities.

These ecologic, societal and economic challenges and opportunities arising from Arctic change have resulted in five key considerations of the EC regarding Arctic research:

Firstly, the EC promotes open science, meaning open access to research infrastructure, to data and to scientific results. A meaningful contribution to a growing and shared body of knowledge is dependent upon scientists having access to all available sources of data in order to facilitate an integrated review system for Arctic science.

The EC also strives to increase the predictive capabilities of climatic changes, feedback processes and weather events through improving the quality, the frequency and the geographic coverage of sustained observations. This implies an integration of space, remote,

ground-based and underwater tools. Technical innovation is highlighted here as a mean of reducing high costs, which previously have been seen as a limiting factor in sustainable development.

The EC seeks to establish an open international cooperation. Funding programmes of the EC are already open to applicants worldwide – a standard that the EC hopes to see being replicated.

The EC says it is important to involve Indigenous people, local communities, and the relevant stakeholders in a sustainable development agenda. "We wish to make the Arctic a test bed for sustainable innovation, developing protocols and standards, which can guarantee

SCIENCE-INFORMED DE-CISION MAKING IS KEY TO SAFEGUARDING THE FRAGILE ECOSYSTEMS OF THE NORTH, TO LIMIT RISKS AND TO ENABLE ADAPTATION OF LO-CAL COMMUNITIES protection and sustainable exploitation", says Andrea Tilche, Head of the Climate Action and Earth Observation Unit, Directorate General for Research and Innovation of the European Commission.

And finally, the EC states that none of these objectives can be reached without engaging local communities and relevant stakeholders. For this reason one of the first steps in its Horizon 2020 framework programme for research and innovation was to establish a new coordination action, EU-PolarNet. This consortium - the world's largest in expertise and infrastructure for polar research - has been called upon to assist the EC in giving advice in polar related questions, coordinating polar research and infrastructures in Europe and in identifying the highest priority research topics.

The EC has now proposed an investment of about 40 Million Euros in Arctic research and innovation for 2016/2017, which focuses on the following key strategic areas: The development of an

integrated observation system for the Arctic; the assessment of the impact of Arctic changes on the weather and climate of the Northern latitudes; and the



NICOLE BIEBOW is a marine geologist and executive manager of

the EU Coordination and Support Action EU-PolarNet

impact of climate change on the Arctic, in particular on permafrost and its possible feedback and the socio-economic consequences. To tackle these questions, the EC seeks multidisciplinary and international projects with strong stakeholder involvement.

Such an investment is of high importance to European polar research owing to the remarkable range of skills, knowledge and infrastructure that can be mobilised and coordinated in large EU projects. This will allow bigger and more complex science problems to be addressed, which are beyond the capacity of one single nation. \bigcirc

THE PICTURE

Survival skills



The Greenlandic Inuit Agioq and "Boatsman" making a hole in the sea ice during seal hunting at Danske Øen, Canada. These two Inuit participated in the 5th Thule-expedition supplying the expedition with game and skin for clothing. Inuit were important members of the Arctic expeditions due to their hunting and survival skills as well as their ability to find the safe routes in the landscape. Photograph from the 5th Thule-expedition 1921-24.



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To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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