

## Shaping the future

**EU sustainable energy week preview:  
Europe's key event showcasing the latest  
innovations in energy efficiency and renewable  
energy technology, policy and practice**

**MEPs Herbert Reul, Bendt Bendtsen and  
Lambert van Nistelrooij provide comment and  
analysis on the future of Europe's energy landscape**

### **EU sustainable energy week**

Philip Lowe discusses the importance of EUSEW in promoting the EU's sustainability agenda

**Plus:** European aluminum association coverage, Food labelling, EU transparency and a nuclear-free Europe



### **Arctic policy**

Michael Gahler, Greenland prime minister Kuupik Kleist, Canadian Arctic official Sheila Riordon & Norwegian foreign minister Jonas Gahr Støre

**Plus:** World cancer day: Catherine Stihler and Glenis Willmott



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# Arctic state

We need cooperation and joint action to ensure sustainable development of the Arctic region, argues **Jonas Gahr Støre**

**T**he High North is the Norwegian Government's number one foreign policy priority. Our goal is to ensure peaceful, sustainable and prosperous development in this region – through increased activity, presence and knowledge.

We welcome the growing awareness of the challenges and potential of the Arctic region. Only through cooperation and joint action can we ensure sustainable development of this region.



Our High North policy identifies three drivers of change.

First, climate change and its impacts, such as melting ice, the emergence of new trade routes and easier access to hydro-carbon resources.

The ecosystems in the Arctic are particularly sensitive to change. Such changes can have major consequences and have substantial effects on livelihoods, not only for the ecological regimes in the Arctic, but also on a global scale.

Circumpolar cooperation in the Arctic council, and regional cooperation in the northern dimension and the Barents euro-Arctic council are important for addressing the challenges we are facing in the Arctic. I am very happy to see that these bodies are contributing actively to putting Arctic climate change on the global agenda.

They are also playing an important role in harmonising guidelines for increased human activity in the Arctic. The international maritime organisation is playing an important role by working to establish a new legally binding polar code for shipping in these harsh and environmentally challenging and vulnerable waters. I am also pleased to note that the members of the Arctic council have agreed on a legally binding agreement on search and rescue cooperation in the Arctic to be signed at the Arctic council ministerial meeting in Nuuk, Greenland in May.

Second, our broad and close relations with Russia and our other regional partners.

The agreement between Russia and Norway on maritime delimitation in the Barents sea and the Arctic ocean was an historical milestone, establishing the maritime boundary between Norway and Russia after nearly 40 years of negotiations. The agreement reached, including the course of the delimitation line, is in full accordance with the international law of the sea. The agreement is a clear reflection of the new dynamic in the Arctic.

What was once a frozen region in more than one sense is warming up to the prospects of reaping mutual benefits through cooperation based on agreements. As stated in the Ilulissat declaration of May 2008, all the Arctic coastal states agree that existing international law provides a predictable framework for handling present and foreseeable challenges in the Arctic.

Third, increasing exploitation of resources and increasing transport: Both will have to be managed in a sustainable way if we are to succeed in developing the Arctic.

There are no doubt serious negative implications of global warming we have to mitigate. On the other hand, retreating ice opens up new commercial opportunities for shipping and petroleum activities.

Our responsibility is to make sure that this new economic development does not jeopardise the future of the region. And that is why science, knowledge and cooperation are key in

order to secure sustainable development in the Arctic.

The Arctic council has proven to be an effective instrument for developing guidelines, best practices and knowledge. Norway believes that in order to further adapt to new challenges in the region, the Arctic council needs to enhance its organisational capacity by establishing a permanent secretariat and to further broaden its discussions by including new permanent observers such as the EU.

I welcome the EU's increased engagement in the Arctic and the development of an EU Arctic policy. Our European partners have a lot to contribute as regards research and science, industry, trade and financial power. The EU has legitimate interests in the region. I welcome the balanced approach which prevails in the policy documents made by the European insti-

*"What was once a frozen region in more than one sense is warming up to the prospects of reaping mutual benefits through cooperation based on agreements"*

tutions, most lately and notably in the report from the European parliament from January this year. I look forward to the progress report by the European commission.

By this summer, the Norwegian government will present a white paper on Norway's High North and Arctic policy. Although the region is changing at a very fast pace, three objectives remain

the same: to preserve peace, predictability and stability in the High North, to ensure sustainable management and development of natural resources and to engage in international cooperation to meet common challenges in the Arctic.

Knowledge is the key to reaching these objectives. With knowledge, we can meet the challenges and opportunities in the High North. We are this region's custodians for future generations. ★

Jonas Gahr Støre is Norway's minister of foreign affairs

# Raising the temperature

Future management of the Arctic's resources will require stronger cooperation, writes **Pat the Cope Gallagher**

**F**ishing in the Arctic waters is nothing new. In the Barents Sea, Norway and Russia have co-managed the Arctic cod stock for decades. Moreover, the local and indigenous communities living in the Arctic have to a large extent depended on subsistence fishing for their livelihood. However, temperature rises in the Arctic region are having a profound change upon fishery resources.

There were several reports last summer of fishing vessels going further up the East-coast of Greenland than ever before. The fishing vessels were able to stay there for a longer time period thus enabling them to catch more fish. There were also several boats fishing north of Spitsbergen, something which is again highly unusual.

The Arctic waters are absorbing more warmth from the sun due to lower levels of sea ice. Fish will change their pattern of migration as the water temperature increases.

Fishing is a vital economic activity for the local and indigenous communities living in the Arctic. A report published in February by the university of British Columbia in Canada

concluded that fishing activity in the Arctic is generally unreported. The report stated that catches are 75 times higher than reported to the United Nations. Accurate data must be available to ensure the sustainable management of these resources.

The management of living resources in the Arctic was one of the main topics of the bi-annual conference of Arctic parliamentarians, which the European parliament hosted for the first time in September 2010.

I would like to highlight two key recommendations emanating from the conference. Firstly, the Arctic nations need to improve cooperation regarding the management of living resources in the Arctic. Secondly, the Arctic nations need to formulate a common set of goals and interests. Furthermore, I believe that it is necessary to collect and share data on new and emerging fisheries within the respective exclusive economic zones so as to ensure sustainable development and management. Thus ensuring, consistent approaches and standards for the management of trans-border fish stocks in the Arctic region. ★

Pat the Cope Gallagher is a member of parliament's fisheries committee



# Crossing borders

For two decades, we have enabled people to communicate and collaborate across borders and cultures, writes **Priscilla Wohl**

**A**s an association of regions in the north and the Arctic, the northern forum has followed a simple rule over its 20 years: look for best practices from around the globe and implement them in the north where it is feasible and prudent. The Arctic is unique – sparse populations, limited infrastructure, a fragile but rich environment and harsh climates. Regional leaders face challenges ranging from environmentally sound resource development to maintaining and improving health care for Arctic residents. The northern forum enables northerners to find solutions to common challenges.

In addition to the limitations brought about because of the remoteness of the Arctic, the global challenge of climate change adds to the urgent need to aggressively pursue technologies to reduce energy consumption and move towards sustainability. As the Arctic warms, new challenges emerge related to the growing

pressure for resource development and Arctic shipping which will expand the number of people living and working in the Arctic. This will place additional pressure on traditional lifestyles and cultures and the fragile northern environment.

Looking for solutions, the northern forum has identified key areas for strategic focus to improve lives in the north and help with the adaptation process. These include: expanding efforts to deal with substance abuse, infectious diseases and the growing epidemic of diabetes; developing programs to build capacity in rural or small communities to ensure sustainability and health communities; utilising technological advances to improve quality of life, including expanding the use of telemedicine, distance education and access to the internet; and addressing critical adaptation and mitigation measures resulting from climate change through the use of innovative technology for energy conservation, alternative energy and economic development. For each of these strategic focus areas, the northern forum looks to our sister organisations and regions throughout the globe for ideas and activities that can be adapted to the Arctic environment.

Capacity building is critical to ensuring sustainable futures for northern residents. Training people in Arctic communities to take on the jobs that will emerge in the next 20-30 years will help them stay at home. Numerous regions in Europe are good models in this respect, as they have developed small scale industries and encouraged industries to provide training to the local people. The northern forum is looking in particular at the cooperatives that exist all around Europe as particularly good examples of tapping into the local resources and skills, and with minimal training, using them to create permanent jobs and sustainable economies.

Northern leaders are also interested in innovative technol-

ogy approaches to tackle the obstacles of isolation and lack of infrastructures. Expanding the use of new technologies and global communication advances enable whole communities to expand economic development opportunities and improve the lives of northern residents. Telemedicine in the north has been an excellent example of using advanced technologies to improve health care and lower the costs for that care. The northern forum reaches out to industry and regional government officials around the globe for technologies that can be transferred to the Arctic to address critical issues.

Cooperation with indigenous peoples is a key element for working in the north. Incorporating traditional knowledge in all aspects of science, development, medicine and other spheres is critical. The northern forum project managers work in cooperation with indigenous communities, for projects ranging from management of wildlife species to treating alcohol abuse. Additionally, the forum is exploring ways to integrate indigenous knowledge and sustainable economic development. Recent successes include utilising new technology for meat process and the traditional reindeer husbandry of the Arctic to provide jobs for rural and indigenous residents and provide a meat product that is exportable to Europe.

The Forum is drawing on achievements of our international colleagues. The conference of peripheral maritime regions in Europe has had success in harmonising regulations

in shipping, oil spill containment, and accident prevention in maritime regions of Europe. This is a model that can be transferred to the Arctic to strengthen emergency response capabilities and enhance environmental monitoring and conservation. Another example of technology transfer involves construction techniques. Northern European countries have developed cold climate-based technologies to build, insulate and protect houses and infrastructures.

These technologies can be exported to Arctic; however changes in regulations and housing construction standards need to be standardised. The forum works with technology innovation centers in Alaska and the Yukon in an effort to bring changes in these areas in North America.

The approach of the northern forum is to help people talk to each other; to establish cooperation and collaboration. For two decades, we have enabled people to communicate and collaborate across borders and cultures, to identify best practices, share lessons learned and transfer technology that addresses our common Arctic challenges. ★

*"The Arctic is unique – sparse populations, limited infrastructure, a fragile but rich environment and harsh climates"*

Priscilla Wohl is executive director of the northern forum

# An Arctic nation

Canada is committed to working constructively with others on Arctic issues, writes **Sheila Riordon**

Canada is an Arctic nation. The north is our home. Canada recognises the tremendous opportunities and the challenges that exist in the north today. Canada exercises its sovereignty and takes its leadership in the Arctic seriously; it is a top foreign policy priority. Our Arctic foreign policy statement, issued in August 2010, builds on our 2009 northern strategy and gives the concerns of northerners a central place.

Arctic science and technology (S&T) form an important foundation for Canada's priorities in the north. Canada has for many years been a leader in Arctic S&T.

Canada provided the largest single country contribution to the international polar year (IPY) with a total commitment of €115m. This commitment resulted in the mobilisation of

1400 investigators, and 190 foreign collaborators from 17 countries in 67 different communities in the Canadian north. IPY funded 51 projects focused primarily on climate change impacts and adaptation, and the health and well-being of northern communities.

In April 2012, Canada will host the concluding conference for IPY titled 'From knowledge to action'. More than 2500 scientists, policymakers and business leaders will discuss the extensive results arising from IPY.

To ensure the continued strength of Arctic S&T, Canada will build a world class Arctic research station in Cambridge Bay, Nunavut. Canada is strengthening the current Arctic S&T infrastructure in the north, by contributing €63.2m to 20 projects at 37 different locations. The cutting-edge Arctic research





resulting from these investments will contribute to improving economic opportunities, environmental stewardship, and the quality of life of northerners.

Canada is facilitating opportunities for networking and collaboration among Arctic scientists within Canada and abroad. The ArcticNet network of centres of excellence of Canada is critical in helping to understand the impacts of climate change and opportunities that come with globalisation in the Arctic. Within Canada, there are over 140 researchers from 30 institutions engaged in ArcticNet. Abroad, ArcticNet has ongoing projects with over 50 researchers from 12 different countries (Denmark, Finland, France, Greenland, Japan, Norway, Poland, Russia, Spain, Sweden, the United Kingdom and the US).

Arctic science underpins sound policy and decision-making in the Canadian north.

Canada promotes sustainable development of the Arctic in a manner that will benefit its inhabitants. Canada is working to create the international conditions for sustainable development in the Arctic, to complement our domestic measures. Canada's national energy board is undertaking a review of Arctic safety and environmental offshore drilling requirements.

Strong environmental protection is an important element of Canada's stewardship in the Arctic. We are acting now in anticipation of an increase in Arctic shipping. Canada extended the application of its strict pollution prevention measures in ice-covered waters out to the limits of its exclusive economic zone and introduced mandatory ship reporting for vessels within Canadian Arctic waters. These measures enhance safety

and safeguard the fragile Arctic marine environment. Canada also supports the negotiation of a mandatory "polar code" in the international maritime organisation.

Canada is committed to working constructively with others on Arctic issues, through bilateral relations and through regional mechanisms like the Arctic council. The Arctic council is the leading multilateral forum through which we advance our Arctic foreign policy. We believe Arctic states, by virtue of their sovereignty, sovereign rights and jurisdiction, remain the best placed to exercise leadership in the management of the region. Canada is working to strengthen the policy capacity of the Arctic council. An important achievement is the negotiation of a legally-binding Arctic search and rescue agreement.

Canada cooperates with Arctic neighbours and other multilateral institutions. The key foundation for collaboration is acceptance of and respect for the perspectives and knowledge of northerners and recognition that an extensive legal framework applies to the Arctic Ocean, notably, the law of the sea, which provides for important rights and obligations.

Canada and the EU work together in the area of Arctic science and research; and through the northern dimension policy, to which Canada is an observer. We followed with interest the recent European parliament report, A sustainable EU policy for the high north, and the efforts of the parliament to seek out the views of Arctic stakeholders. Canada continues to engage with the EU as it develops its own Arctic policy. ★

*"Canada exercises its sovereignty and takes its leadership in the Arctic seriously; it is a top foreign policy priority"*

Sheila Riordon is a Canadian senior Arctic official

Simon Bely/Arct



Scientists spending the winter of 2007-2008 aboard the CCGS Amundsen negotiate hummocks and melt ponds as they measure the thermodynamics of a multi-year ice floe in the Beaufort Sea

# EU Sustainable Energy Week

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# A global approach

Climate change, environmental protection, resource markets and new trade routes are global concerns, warns **Daniel Hosseus**

Daniel Hosseus is the director of international and EU affairs of the German shipowners' association in Brussels and Hamburg

**G**lobal warming will change access to the Arctic. Some areas will be easier to reach and the occasional transit between Asia and Europe may become possible. However, the real driver for shipping in the Arctic are the prices for natural resources such as minerals, diamonds, ores, gas and oil. When the prices break-even, these Arctic resources will be tapped. And it is ships that will carry them as well as the equipment and supplies required. Maritime traffic in the Arctic will increase regardless of climate change.

The framework for shipping in the north is being adjusted

to accommodate the changes in Arctic traffic. The international maritime organisation (IMO) is working on a mandatory polar code to enhance the existing ship safety and environmental rules. It could come into force as early as next year. It will supplement the law of the sea and all the other international maritime safety and environmental conventions that already govern Arctic shipping. More work, however, is required on navigational aids, nautical charts, communications, search and rescue and pollution response.

An international approach to Arctic shipping is required. Climate change, environmental protection, resource markets and new trade routes are global concerns. They must be discussed globally. Southern countries such as Germany, have a stake and should be involved. That is why an EU Arctic policy is helpful and why the appreciation the parliament expressed for the IMO in the Gahler report is very welcome. ★

# Northern exposure

The EU needs to commit more resources to expanding northern sea trade routes, argues **Birgit Schnieber-Jastram**

Birgit Schnieber-Jastram is chair of the European parliament's cross-party EU-Arctic-forum

**T**he report by the European parliament on the development of a comprehensive EU Arctic policy lists the development of new sea routes – in particular the further expansion of the north east passage as new international trade routes between Europe and Asia – as one of the EU's top priorities. This is of particular significance to EU member states. Europe controls 40 per cent of the world's merchant fleet and European shipping companies have a strong interest in safe and fast transport routes that could save time and energy. With increasing uncertainty and the associated costs linked to the traditional routes via the Suez canal and the Gulf of Aden, the potential benefits

of establishing new routes are evident.

This is why the parliament is calling for an increased commitment from the EU in the Arctic region. Existing projects such as the Galileo satellite navigation system or global monitoring for environment and security need to be developed for marine expansion because these enable Europe's unique contribution to the collaborative development of the Arctic. Creating European icebreaker capabilities will be highly significant, therefore it is imperative that the European icebreaker "Aurora Borealis" project be resolutely pursued.

The growing interest from other international players, such as China should make policymakers realise that given the rapidly retreating and declining polar ice packs, decisions on European investment in the Arctic cannot be placed on the backburner. In this respect, European commitment should always contribute to a partnership with the aim of implementing ecological and sustainable development in the Arctic. ★

# Protection policy

Arctic development needs to go hand in hand with the wellbeing of the region's indigenous peoples, write **Indrek Tarand**

**T**he main problem with the indigenous peoples' land seems to be the states' failure to recognise and respect the indigenous peoples' management of their own lands and resources, and to accord them the necessary legal status and protection. Commercial development and industrial actions must under no circumstances prevail over indigenous peoples' rights. The special relationship of indigenous peoples with their lands, territories and resources is recognised by the UN in numerous instruments, such as the ILO convention 169 and the declaration on the rights of indigenous peoples.

The UN and EU have both criticised Finland and Sweden for not ratifying ILO 169 indigenous and tribal peoples convention and they will continue to do so. Russia has not ratified it either. The situation of Sami in Finland and Sweden is far better compared to that of the numerous Arctic people in Russia.

The EU should foster the establishment of a proper indigenous peoples' office in Brussels to provide valued support. The goal cannot be to maintain traditional life as in a museum obviously, but the change in that lifestyle shouldn't be dictated by the needs of the oil industry only.

Most of the indigenous peoples' problems come from rapid climate change. Hence, the EU should make even more effort in mitigating climate change. This means more ecosystem-based management and using more renewable energy. If the EU could reduce its footprint in Arctic development it would contribute greatly to the indigenous peoples' well-being. ★

**Indrek Tarand** is a member of parliament's cross party EU-Arctic forum and a former Estonian foreign minister

# A shared concern

The EU needs to invest in developing more accurate information on the Arctic, says **Anneli Jäätteenmäki**

**T**he Arctic has recently received much attention in European politics. Sometimes good intentions are, however, overshadowed by a lack of information. Accurate information is needed on the changing environment, economic opportunities and political landscape of the Arctic. Therefore, I support the European commission's proposal to establish an Arctic information centre to provide accurate information. The university of Lapland in Finland; Pierre and Marie Curie university in France; the international polar foundation in Belgium and many other research and education institutions within the EU as well as partner institutions in Iceland and Norway,

have proposed the establishment of the centre as a networked undertaking while setting up the hub of the information centre within the Arctic centre of the university of Lapland.

I wholeheartedly welcome the proposal. The Arctic centre of the university of Lapland is one of the leading institutions for Arctic research in Europe. Furthermore, the University is a founding member and the location of the international secretariat of the university of the Arctic. The Arctic is an indispensable part of the EU and adds immensely to our cultural and economic wealth. Two member states, Finland and Sweden, are located in the Arctic circle. Iceland may join the union in the coming years while the EU's only indigenous people, the Sami, also live in the Arctic.

The future of the Arctic demands serious consideration. Through its people, their livelihoods, economic wealth, geopolitical importance and shared concern for the environment, the EU has vested interests and high stakes in the north. ★

**Anneli Jäätteenmäki** is a member of parliament's foreign affairs committee and a former Finnish prime minister

# Arctic role

The Arctic forum is a key driving force in developing the EU's high north strategy, writes **Steffen Webber**

**E**urope needs a coherent policy for the Arctic. On vital issues such as environment, research, fishing, shipping and navigation and not least the demand for the Arctic resources, the EU and its members states are already important actors in the Arctic.

Developments in the Arctic due to the effects of climate change and increasing human activity will have its repercussions on Europe, providing both challenges and opportunities.

When the European parliament decided to work on a report based on the Arctic, the EU Arctic Forum was founded to provide European politicians with a cross-party platform to foster a better understanding of changes in the Arctic region and the implications for Europeans citizens and businesses to facilitate a well informed and balanced debate, as well as to bolster the development of a coherent European policy with regards to the Arctic region, in particular during the preparations for the European parliament's report on the Arctic in the last months.

Due its activities the EU Arctic forum became the recognised policy platform in Brussels on Arctic issues, providing not

only for exchange and input of information but to interlink the so far rather fragmented debates on Arctic issues such as climate change and the environment, scarcity and security of supply of resources and energy, safety and security, indigenous issues, new world transport routes and navigation as well as EU relations with Arctic states as well as Russia, Canada, Greenland, Iceland and the US.

In its strategic work the EU Arctic forum in the European parliament is involving a number of senior MEP's from all major political groups and several committees, delegations and intergroups such as the committees on foreign affairs, environment, transport, industry, research and energy and development. It hosts debates on a regular basis with experts and stakeholders from the scientific community, business, NGOs, and international institutions and also politicians and diplomats from the Arctic.

Following up on the parliaments report and closely observing the development of the preparations of the commission's progress report, the EU Arctic forum will continue to work as a political driving engine in the EU and has already scheduled seminars and meetings to further implement the EU's Arctic policy.

On 13 April politicians and experts of the Barents euro-Arctic council, including the speaker of the Duma of Murmansk, will meet with their counterparts in the parliament and host a workshop on the Barents cooperation, covering issues including the northern sea routes, common fish stock management, resources and indigenous people.

On 24 May the EU Arctic forum in cooperation the U-Arctic, a network of 250 universities and institutes in the Arctic, will welcome prominent figures like Deliang Chen, executive director of the international council for science, Karin Lochte, director of the Alfred Wegener institute and Anton Vasiliev, Russian ambassador to the Arctic council.

The EU Arctic forum will continue to provide an open platform and focus in particular to build an interface for science, business and civil society with European politics. ★

Steffen Webber is secretary general of the European parliament's Arctic Forum

## The Arctic and space

The Arctic is characterised by its remoteness, low population, and harsh conditions. Therefore satellite infrastructures - communications, navigation and observation - are essential for life in this region.

In November 2008 the European commission proposed a series of objectives for an EU policy on the Arctic. A year later, a workshop on space and the Arctic investigated how space infrastructures could facilitate communication, environmental monitoring, early warning, navigation and vessel tracking.

More recently, in January this year the European parliament adopted a resolution on a sustainable EU policy for the High North making reference to space assets to support some of the needs in the area.

However satellites are already providing positioning services for navigation, allowing the sea-ice extent to be measured (both for monitoring the impact of climate change and for enabling safe operations), enable effective monitoring of vessel traffic (by picking up radio signals from the ships' anti-collision system) and ensure medium data rate communications. Space technologies bring all-weather 21st century benefits to operations in the Arctic.

A number of ongoing actions, such as the GMES Sentinel programme, will bring further benefits by facilitating the continuous monitoring of parameters such as ice thickness. Nevertheless the special technical challenges of the Arctic, particularly the fact that the majority of communications satellites sit in geostationary orbits above the equator and are invisible above 75°N, mean that those working and living in the Arctic do not receive the same services as the rest of the planet's population. This particularly affects high bandwidth communications and the accuracy and integrity of navigational systems. Some of our international partners, such as Canada and Russia, are already planning solutions to this. The EU does not have any plans to follow suit but the European Space Agency has undertaken a number of studies to assess technical options including collaborative ventures with these international partners.

*This contribution was co-authored by Isabelle Duvaux-Béchon and Jérôme Béguignon from the European Space Agency and Paul Nemitz and Iain Shepherd from the European Commission's DG-MARE*



# Taking responsibility

Black carbon is perhaps the gravest danger to the Arctic, warn **Eivind Hoff** and **Jonas Helseth**

Up to 40 per cent of fish caught in the Arctic and one quarter of oil and gas extracted from the Arctic is consumed in the EU. Through its market shares and its rules on trade and transport, the EU carries a huge responsibility for industrial activities in the Arctic – and holds several means to save it.

Above all, we need to do our utmost to keep the Arctic ice cover intact. White surfaces reflect sunlight far better than dark blue seas. In other words, there is a vicious circle of less ice triggering more absorption of solar energy, thus more warming and even more ice melting. Perhaps the gravest danger to the Arctic's ice and snow cover is black carbon. This is small particles of soot, resulting from incomplete combustion of biomass and fossil fuels. Black carbon contributes to respiratory diseases when we breathe it. In the Arctic, black carbon deposits accelerate the local melting of snow and ice, which reduces sunlight reflection and thus additionally contributes to further melting and global warming.

Black carbon can be transported over long distances like other air pollutants, but concentrations are denser closer to source. Europe (including western Russia) is responsible for about 60 per cent of black carbon in the Arctic and has a duty to act.

Shipping is particularly ripe for EU action: The transport of gas and oil from Arctic Russia and Norway almost doubled between 2008 and 2010, with the overwhelming majority bound for EU ports. Tankers fuelled by heavy fuel oil or diesel do not have the particle filters that have been introduced for cars. They thus represent a disproportionate source of black carbon, which can be reduced at very low cost: At a cost of €5–35m per year, black carbon emissions

are equivalent in global warming potential to 9–70 million tonnes CO<sub>2</sub>, which could be avoided.

In January, the European parliament recognised this in its report on a sustainable EU policy for the High North, in which it both emphasises the need to mitigate black carbon emissions and suggests a ban on the use of heavy fuel oil in vessels operating in the Arctic. Such a ban will enter into force in the Antarctic by 1 August 2011. A similar ban should be introduced in the Arctic.

The oil and gas industry has operated for quite some time in the Arctic. What is new is the prospect of oil and gas production far offshore and at significant depths, such as the Shtokman development planned 500 kilometres offshore from Murmansk.

Petroleum activities will always involve a risk of accidents and serious emissions. With increasing oil and gas production in the Arctic, the question is not if, but when, oil spills will happen: They are likely to be considerably more difficult to deal with than in most other seas, due to remoteness, sea ice, strong currents, cold weather, rough seas and dark winters.

With the ban on trade in seal products, the EU has already shown its preparedness to use its market power to influence events in the Arctic. If it can do that for animal welfare, why not do it for reducing the melting of the Arctic ice and for saving abundant but fragile ecosystems on which Europeans' welfare ultimately depend? ★

*“There is a vicious circle of less ice triggering more absorption of solar energy, thus more warming and even more ice melting”*

Eivind Hoff is director and Jonas Helseth is a senior adviros at Bellona Europa Brussels



# Pole position

Greenland's size and geographic position are bringing it to geopolitical prominence, writes **Kuupik Kleist**

**F**rom a European perspective, Greenland appears central due to Greenland being an Arctic overseas territory of the EU and as Denmark's Arctic window. I stated at a seminar in Brussels in late 2009 that Greenland has two special characteristics, first of all, our levels of economic and industrial development are very low compared to European countries, and secondly, Greenland possesses near unlimited energy resources in the form of hydropower, which can reduce global emissions if industrial development takes place in Greenland instead of elsewhere.

The melting of the polar ice as a consequence of global warming is creating more activity in our area and is changing the geostrategic position of Greenland. Cooperation with the EU could positively be of interest as the Union holds the largest merchant fleet in the world. Greenland is discussing Arctic development issues with the other countries in the Arctic, also within the Arctic council. Greenland has stressed

that the EU's active participation in the Arctic council work should help to provide for a more reasoned approach to Arctic issues, such as understanding the importance of protecting traditional lifestyles, the role of marine mammals and human development issues.

I strongly believe that the economic development of Greenland needs foreign investment. The European Union can be an important partner and player, not only when it comes to fisheries and education, but also in terms of research, transport and energy, climate change and cooperation in the international arena.

The EU represents 495 million European citizens compared to 56,000 Greenlanders. At the same time Greenland has a landmass which can almost cover the entire European continent, which is why it is increasingly becoming a geostrategic centre of the world's attention. If Europe is ready to listen and act to our concerns Greenland could become your Arctic window. ★

**Kuupik Kleist** is prime minister of Greenland

## Thorir Ibsen welcomes the EU's deeper engagement with Arctic matters

**I**celand's history, culture and economy have been moulded by the Arctic. We continue to rely heavily on the fragile natural resources of the region. This is why the Icelandic government has made the Arctic a foreign policy priority. We are committed to ensuring that the future development of the region is grounded on sustainable and responsible management of Arctic resources for the long-term wellbeing of the Arctic's inhabitants, its environment and other stakeholders.

The Arctic council is the main forum for regional cooperation in the Arctic, including representatives of all eight Arctic member states, of indigenous peoples and observers. Iceland believes that the council should be further strengthened with a permanent secretariat and the ability to take decisions that

may result in legally binding agreements, such as the forthcoming agreement on Arctic search and rescue.

It is vital to forge partnerships with relevant non-Arctic stakeholders on matters such as international shipping rules, climate mitigation and trans-boundary pollutants.

EU climate change goals and the EU's contribution to research in the Arctic are of key importance for all stakeholders in the region. With this in mind, Iceland supports the EU in its request for permanent observer status to the Arctic council.

The EU's engagement in the Arctic is timely and welcome. We look forward to mutually beneficial cooperation with the EU on Arctic matters, and if Iceland joins the EU this cooperation will of course be even closer. ★

**Thorir Ibsen** is Iceland's ambassador to the EU

# Breaking the ice

Science can be a tool of diplomacy to balance national and common interests in the Arctic Ocean, writes **Paul Arthur Berkman**

**A**s is being discussed at the Arctic summit science week in Seoul, South Korea, the Arctic Ocean is undergoing the largest environmental state-change on Earth, transforming the north pole from a sea-ice cap that has persisted for millennia to a seasonally ice-free sea within the next few years. This fundamental shift in the boundary conditions of the Arctic Ocean will create a new natural system with different dynamics than anything previously experienced by humans in the region. In fact, the Arctic Ocean already has transitioned from an ecosystem dominated by multi-year sea ice to a habitat that is mostly covered by first-year sea ice, signalling earth system and socio-economic feedbacks from the high north that will reverberate around the world within this decade rather than 20-40 years in the future.

With the diminishing ice cover – amplified by climate warming in the polar regions – interests are awakening to take advantage of extensive energy, shipping, fishing and tourism prospects in the Arctic Ocean. At the same time, five of the coastal states ringing the Arctic Ocean are increasingly asserting their sovereignty, sovereign rights and jurisdictions seaward.

The other Arctic states, along with indigenous peoples, organisations, and non-Arctic states, are also introducing their perspectives on Arctic governance and stewardship, as illustrated in the European Union by the: October 2008 European parliament resolution on Arctic governance, the November 2008 European commission communication on the European Union

and the Arctic region, the December 2009 European council conclusions on Arctic issues, and the January 2011 parliament resolution on sustainable EU policy for the high north.

These geopolitical drivers introduce a fundamental challenge to balance national interests and common interests in the Arctic Ocean. The path forward is revealed by the common arctic issues of sustainable development and environmental protection, which were agreed by the Arctic states and indigenous peoples in the 1996 Ottawa declaration that established the Arctic council. These common arctic issues underline the critical importance of international, interdisciplinary and inclusive assessments to interpret the cultural, political, economic and ecosystem instabilities that are emerging with the environmental state-change in the Arctic Ocean.

With sufficient information and shared understanding about the risks of instabilities, it then becomes feasible to establish, integrate and implement the necessary adaptation and mitigation strategies. One of the many contributors to these interdisciplinary assessments is the four-year, nine-nation Arctic climate change, economics and society project that was funded in March 2011 by the European commission.

Science is both a key for unlocking these system assessments and a tool of diplomacy for balancing the diverse interests in the Arctic Ocean. The law-of-the-sea framework, to which all of the Arctic coastal states “remain committed” as noted in their 2008 Ilulissat declaration, embodies the key legal and policy elements to achieve this balance for the lasting benefit of all. ★

**Paul Arthur Berkman** is head of the Arctic Ocean geopolitics programme Scott Polar research institute, university of Cambridge







# Arctic attraction

**Michael Gahler** says a sustainable EU policy for the high north is needed more than ever

**A**t first glance the Arctic seems to be rather far away from Europe – quite erroneously so however. The EU already comprises a number of Arctic countries, that is to say Denmark, Finland and Sweden; Norway is a member of the European economic area and Iceland applied to join the EU in July 2009. Furthermore, the Arctic is a region particularly rich in resources and thus of high strategic importance for the EU. In fact, it is estimated that about a fifth of the world's undiscovered hydrocarbon is located here, not to forget many other resources. Moreover, the retreat of sea ice will produce new world transport routes leading straight through the Arctic. As a consequence, the time needed for shipping from Europe to East Asia could be reduced by about 40 per cent. It goes without saying that the Arctic thus offers great opportunities for the European Union and its member states. Taking advantage of these potentials Europe has to cooperate with the partners there, which include global players such as Russia and the United States. That is why a stringent and sustainable EU policy for the high north is more important today than ever.

The resolution of the European parliament of January 2011 takes full account of the strategic importance of the Arctic. Its main goal is to formulate the framework for a closer cooperation with the states and institutions of the north. Europe has a vital interest in this region, but at the same time the EU is an attractive cooperation partner for the Arctic states, being a precursor in many political fields such as environmental protection – crucial for a region that is affected by climate change more than other regions. Moreover, the EU as the world's biggest single market is not only an important trade partner for the Arctic states, it can for example also cooperate with its northern

partners in exploring and establishing new transport routes by virtue of its Galileo satellite programme. So, there is ample opportunity to profit from one another.

However, in order to cooperate effectively it is necessary to enhance the institutional framework of communication between the EU and the Arctic states. That is why the EU has suggested to the Arctic council to further develop its important work and broaden the basis for decision-shaping processes by enhancing its capacities by a permanent secretariat, more equal share of costs, more frequent ministerial meetings and an annual Arctic summit. Furthermore, the EU bids for a permanent observer status in the council, while the EP already is a full member of the Conference of Parliamentarians of the Arctic region (CPAR). For the EU it would be highly valuable, if an Arctic policy information centre was established to collect and analyse information to produce policy briefings and facilitate dialogue with the partners in the Arctic, with the aim of enhancing decision-making regarding the Arctic.

However, notwithstanding its enormous strategic interest the EU has made clear in its resolution that the humanitarian dimension has a high priority in its Arctic policy. The EU has a justified economic and political interest in the region, but every political approach should firstly put an emphasis on the inhabitants of the Arctic region and particularly on the indigenous population. Therefore, the EU advocates an approach suitable for conjoining economic development and the protection of the sources necessary for the indigenous peoples' livelihood.

So, taking all this into account it appears that the Arctic in fact is not at all that far away. However, Europe has to make serious efforts that this strategic region does not get out of its reach and gets all the commitment it deserves. ★

Michael Gahler is parliament's rapporteur on a sustainable EU policy for the High North report

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