

FoU-RAPPORT

High North Dialogue: Innovations in the Arctic

April 5-6 2017

Coordinating author:
Line Kristin Haug

Nord universitet
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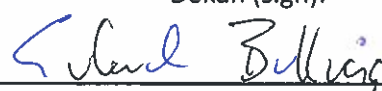
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Summary: Since 2007, the High North Dialogue Conference series has brought together major interested parties – present and future leaders – concerned with Arctic development, including politicians and heads of administration from central governments in all Arctic States, major extractive industry leaders, and representatives from fishing communities, academia, local communities, indigenous people, local politicians, other important stakeholders and Master and PhD students. As suggested by its name, the High North Dialogue focuses on the aspect of dialogue. This dialogue takes place between young people, students, and representatives from the Arctic region's industry – ranging from maritime to land-based industry – authorities, and academics, in order to share information and discuss the best practices, with the aim of tackling challenges in the region. In 2017, the title of the 13th High North Dialogue Conference was "Innovations in the Arctic", focusing on the preconditions for creating innovation and development, as well as concrete examples of innovations.	Keywords: High North Dialogue, Arctic, international relations, High North,	



High North Dialogue

www.highnorthdialogue.no

Innovations in the Arctic

April 5-6 2017, Bodø, Norway



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Preface

Worldwide interest in the Arctic is growing. Changing ice conditions, an increase in regional development, and international geopolitics have placed the High North at the centre of attention. Since 2007, the High North Dialogue Conference series has brought together major interested parties – present and future leaders – concerned with Arctic development, including politicians and heads of administration from central governments in all Arctic States, major extractive industry leaders, and representatives from fishing communities, academia, local communities, indigenous people, local politicians, other important stakeholders and Master and PhD students. As suggested by its name, the High North Dialogue focuses on the aspect of dialogue. This dialogue takes place between young people, students, and representatives from the Arctic region’s industry – ranging from maritime to land-based industry – authorities, and academics, in order to share information and discuss the best practices, with the aim of tackling challenges in the region.

In 2017, the title of the 13th High North Dialogue Conference was “Innovations in the Arctic”, focusing on the preconditions for creating innovation and development, as well as concrete examples of innovations. For more information on the history of former conferences, please visit www.highnorthdialogue.com.

One of the main target groups for the conference is Master- and PhD students, from all around the world, interested in Arctic issues. Students came from the Nordic countries, the US, Asia, Russia, Ukraine and Europe at large. Master- and PhD courses with scenario workshops were organized before and after the conference. The High North Dialogue Conference provides a unique opportunity for those students, who come from the north but do not deal with Arctic topics on a daily basis, to learn more about Arctic issues, and for those more familiar with Arctic issues to interact with fellow Arctic practitioners and, in particular, the participating students.

This report is written by Master students (**contributing authors**) as part of their learning process on the Master course, EN313E “High North Dialogue: International Perspectives on Business and Governance in the High North”. PhD students (**lead authors**) taking part in the PhD course, DR437E “Governance in the High North: Implications for the Private and Public Sectors”, were assigned to check the summarizing and reflection of issues discussed during sessions, as well as the quality of the text and arguments in the reports made by Master students.

Day 1

Session 1: Innovation as a Driver for Development

Contributing authors: Hannah Marie Hernandez, Nataliya Bilous, Karina Eleupova, Aleksei Diachkov. **Lead author:** Samuel B. Adeniji.

Frode Mellempvik, Director at the High North Centre, opened the High North Dialogue Conference, highlighting the important role of the Arctic region. He pointed out the many possibilities produced by innovation and the numerous innovative projects developing in and helping to develop the Arctic. He also commented on the possibility for new ways of thinking about governance and innovative cross-border cooperation. “Innovation as a Driver for Development” promptly began as the first session of the conference on 5 April 2017.

The first presenter was Grete Ellingsen, the State Secretary of the Norwegian Ministry of Local Government and Modernisation. She started by outlining the territory of the Arctic region and highlighting the vastness and variety of the landscape and peoples. She discussed the “Blue-Green Economy” as one of the key criteria for development in this area. This is a situation in which the economic value provided by marine ecosystems is recognized and rewarded. She said that safe High North policy includes protection of the sea and the proper use of resources. Ms Ellingsen also addressed transportation, including a number of initiatives for new border-crossing rail plans from Sweden and Finland, and Russia to ice-free Norwegian ports. If government administration and businesses in neighbouring countries show interest in going ahead with a new freight line, the Norwegian government is open to participating.



Grete Ellingsen.

Ms Ellingsen also mentioned the importance of communication between stakeholders in the Arctic region. She stated that global challenges could be solved by international collaboration and cooperation, implementing new ideas and technologies with the support of investment. Countries should share knowledge to achieve common goals. She identified several other

drivers for innovative development, human resources being the most important asset. Education was also mentioned, as schools and institutions are an integral part of

human development. Many other presenters and participants shared this sentiment throughout the conference.

Ken Coates, Director of the International Centre for Northern Governance and Development at the University of Saskatchewan, underlined key issues related to the development of the Arctic region. As there is a strong competitive factor, it is important to move away from outdated business practices. The development of new technologies is one of the main drivers in this context. To maintain a leading position, the High North region needs to continuously develop and popularize the Arctic. After all, the more people who are interested in the region, the stronger will be the competition, resulting in faster development of technology. Mr Coates also mentioned that the expansion of international cooperation would help us to advance and achieve common goals.

Lars Theodor Kintel, entrepreneur, presented a strong focus on the financial aspect and how it affects the development of the Arctic. He noted that the region is an excellent platform for younger business interests, as the High North is precisely the field where one can implement a wide variety of projects. In addition, Mr Kintel noted that the Arctic region requires funding and support: not only from the side of business but also from the governments of different countries that help the joint efforts through support and regulation, particularly with regard to resources.

Secretary General of the Norwegian Fishermen's Association, Otto Gregussen, spoke on the subject of aquaculture. His presentation, "Innovation in the Fisheries in the Arctic Northeast", introduced information about the Norwegian Fishing Fleet in the Arctic region in 2015, as well as the prospective and ripple effect. He stated that "The common understanding of what we actually are living from in the High North is the true basis for remarkable progress." He also noted that, in stable conditions, there are great opportunities for investment, but if this industry is not stable, then – even with an innovative idea – nothing will happen. Additionally, despite a disregarding of international conventions and a lack of agreements, it is still important to continue negotiations and work together in many areas of industry, such as fisheries. For example, the Norway-Russia co-operation in fisheries is based on both countries having a common interest in sustainable fish stocks in the Barents Sea. The next natural and much-needed step forward in the cooperation or relationship between Norway and Russia includes trade. Furthermore, he talked about areas of innovation, which are greatly needed, such as the building of new vessels; improving the working conditions on vessels; improving the quality of fish; and utilizing the whole fish. It is also necessary to take into account the prediction of amounts of fish to be sold and to not forget about ecology and the environment.

Morten Brugård, Senior Advisor at Innovation Norway, further discussed innovations in the Arctic and the importance of international cooperation. He noted that there is a tremendous possibility for the development of new ideas in all spheres. He added that there is a need to create new types of production and to not forget about logistics and finance. He concluded by highlighting that innovations are important for development in the community but also for business.



The speakers of session 1.

Each speaker discussed innovations and their importance as a driver for development. In current conditions, we must strive to modernize and be flexible as developments occur. Innovations, when used in the Arctic, allow us to form technical solutions and permit increased competitiveness in the region. In turn, the Arctic becomes more attractive to the industrial and social sectors serving it. The technologies will simplify the work itself and reduce the impact of the negative factors of climatic influence. It will be critical to introduce modern methods of production management and to introduce grants and funding for the future development of the region. The Arctic is an exceptional and unique area with special characteristics that provide challenges and opportunities. Further innovations will allow this region to address these challenges, while taking advantage of the opportunities presented.

Session 2: Presentations of Innovative Projects in the Arctic (Part 1)

Contributing authors: Aarne Granlund, Anuszka Maton, Kristina Bychkovska, Naleukhin Vladimir, Sergey Panyukov, Marina Kravchenko and Alina Ovchinnikova. **Lead author:** Snjólaug Árnadóttir.

Journalism: Arctic Now: Arne O. Holm, Editor in Chief, *High North News*

Arne O. Holm, Editor in Chief of *High North News*, opened the session with a presentation on innovative projects in the newspaper industry. These projects are intended to connect various news outlets over long distances in the Arctic. The initial idea was to bring the discussion of political and business issues to a wider audience. This concept was realized in the form of *High North News*, which is an independent news organization project by Nord University, aiming to be an internationally read medium with joint ventures across various countries.

According to Arne Holm, journalism was chosen mainly for two reasons. Firstly, it helps reach a wide readership relatively easily and, secondly, journalism is fairly cheap, as it only requires a computer and a brain. One of the challenges in the initial stage of the project was finding professional journalists who were willing to leave their jobs and work on a project, which at that point existed only in blueprint. *High North News* proceeded to establish contact with various news outlets working in the Arctic, from Alaska to Sweden, as well as to partner up with Arctic Now. Arctic Now is a project in partnership with media organizations from around the circumpolar north, bringing readers international news and perspectives on a changing Arctic. Currently, it has ambitious plans to reach larger audiences by translating articles into Chinese and Russian. Holm noted that financing the project remains a difficulty, which is why Arctic Now will work on a subscription basis. The project has managed to reach readers all over the world and helps to establish contact between people in the Arctic, which ultimately facilitates the development of business.

Fishery industry: Marius Ytterstad: CEO, Ytterstad Fiskeriselskap

In his presentation, Marius Ytterstad, CEO of Ytterstad Fiskeriselskap, a company situated in Lødingen, spoke about the fishery industry in general. He addressed those factors which trigger the need for innovation and how the industry plans for innovation in the High North. The main activities of Ytterstad Fiskeriselskap focus on pelagic fisheries (e.g. herring, sardines, and tuna). There are three main concerns in this industry: (1) keeping the men and women, who work on the boats, safe; (2) catching as much fish as possible cost-effectively; (3) and selling fish at the highest possible price.

A healthy fish stock is the most important asset for the fishing industry; thus, sustainable harvesting and research are considered important innovations. Cost-effective low-emissions technologies are also important for the fishing industry. The efforts of both government and industry must be combined in order to achieve sustainable harvesting, to benefit from the best the ocean can offer and to achieve maximum sustainable yield. Regarding the future of the fishing industry, it is unlikely that innovative ways of catching

the fish will appear; however, new ways of locating, processing, and storing the fish are essential for the further development of this industry. Big data and nanotechnology might be useful for innovations in the field, but the most important trends will be fish traceability and making the industry even greener than it is now. The fishing industry offers many opportunities for the future, as there is a need for sharp minds to design ships and equipment and to market and sell the products, as well as for lawmakers, who understand the current situation, and even bankers with market-specific knowledge.

Ytterstad stated that the industry would probably become greener in the future, and, given the ongoing climate change, it is likely that tax burdens will increase. Finally, Marius gave a piece of advice for young minds at the conference: just find something that you like and go 'hard core' for it.

Maritime waste: Øistein Aleksandersen: CEO, Nofir

Nofir was established in 2008 with a goal of collecting and recycling fishing equipment due to the high demand from the fishing and waste industries. Since such a company has low financial viability, it requires funding from governments. Nofir collects materials in Europe, America and Asia and makes raw materials for the recycling industry. The value chain of Nofir is described as follows: finding old fishing nets; collecting equipment; dismantling; recycling; new products. The process of dismantling new nets is crucial for obtaining homogeneous raw materials for recycling. New products made from Nofir's raw materials include carpets and clothing. Indeed, many people in the world may have clothes that are produced from such materials, as many well-known brands use recycled waste (e.g. Adidas etc.).

Nofir collects fish-farming nets, trawls, and purse seine nets. It is Nofir's view that putting plastics into landfill is inefficient and wasteful; its solution is environmentally friendly, with a lower carbon footprint, a lower footprint for non-renewable resources and lower waste volumes ending up in the sea, landfill or incineration. In 2016, more than 6,000 tons of fishing equipment were collected and recycled by Nofir. In the period 2011–2016, more than 26,000 tons of fishing equipment were collected and recycled. CEO Øistein Aleksandersen believes that Nofir will expand geographically in the future. He also mentioned that one of its key success factors is cheap labour, as it operates in Lithuania and Turkey, where labour costs are substantially lower than in Norway. The project is an example of innovation and resourcefulness: identifying a problem in ocean pollution and coming up with a solution that goes beyond the Arctic, connecting the Arctic to the clothing companies in the 'south'. However, the local benefit seems to be a reduction in pollution.

Oil and gas: Øystein Braathen: Leader Arctic Development Program, Statoil

Øystein Braathen presented three examples of innovations. The first one, called Cap-X, is a new subsea production concept for the Barents Sea. It improves efficiency during horizontal drilling in shallow reservoir, allowing standardization that increases the speed of production and a significant reduction in size. Moreover, such a technology can be utilized in other areas, e.g. the Norwegian Sea. The second project is Symbioses, which

addresses the impact of oil spills on the stock of cod. The project deals with developing digital models (e.g. for detection of migration of oil spills) and allows them to be incorporated into one regional eco-model. According to Mr Braathen, it takes five to seven years to rebuild the stock of cod. The third project deals with the physical environment in the Barents Sea and builds data models based on remote data sensing. Maybe more correctly, the third project deals with the physical environment in the Barents Sea and includes a combination of multiple initiatives: studies of old sources spanning from whale hunter diaries (18th century) to large industry campaigns, physical data recording since 2001, remote sensing, and data modelling (atmospheric and oceanographic hind cast models, sea ice and iceberg drift modelling).

Statoil holds a long-term perspective on developing technology in the Arctic. The company maintains cooperation between universities and emphasizes the application of technologies on a global and regional scale. The general Statoil strategy is to become an energy-producing company, moving into the production of electricity, along with that of oil and gas.

Session 2: Presentations of Innovative Projects in the Arctic (Part 2)

Contributing authors: Andrey Brovin, Yuliia Fliunt, Dana Kryzhanovska, Mayko Tatsuyama Mathisen, Anastasia Platonova and Aaron Taylor. **Lead author:** Karen Everett.

Tourism: Anne Marit Bjørnflaten: SVP Communications, Hurtigruta

Anne Marit Bjørnflaten addressed Arctic tourism. She explained that people are willing to pay more for nature-based “adventure tourism”, where they can visit beautiful locations and learn about local culture. Norway, and particularly the northern part, is capitalizing on this trend. It has become the fourth most popular destination for this kind of tourism. Certainly, the region is becoming an international hotspot for adventure tourism.



Anne Marit Bjørnflaten

Hurtigruta, a cruise ship company, is one of the world’s leading international travel businesses. It provides year-round tours in Northern Norway, with six vessels on the water in the summer and two in the winter. Ms Bjørnflaten explained that their success involves hard work; three key areas have been identified where innovative practices are needed. First, the company

recognizes that there is a growing market with tourists coming from Asia and China in particular. To ensure these customers have the best possible experience, it is important to employ personnel who speak different languages and to provide information in multiple languages, including Chinese. Secondly, as the tourists' desire to visit the north is rooted in the region's unspoilt nature, the industry will need to develop and use clean and sustainable technologies to keep it that way. Hurtigruta is working towards this goal, as their vessels sail quietly through fjords and produce low emissions. Finally, the national tourism industry is expected to grow, and this will contribute to growth in the national, regional, and local economies. For example, Hurtigruta works with local retailers and food vendors to create an authentic experience for its guests, which is one way to give back to the local communities. Ms Bjørnflaten believes Hurtigruta's future is bright, and that means always looking for new possibilities.

Ms Bjørnflaten answered questions regarding the need for new technology by stating that a substantial increase in tourism to the Arctic has the potential to damage the nature people come to see. She further explained that, because technology advances at a rapid rate, the key to innovation is "making small changes over time", rather than sporadically making big changes. Ms Bjørnflaten also answered questions about looking at new markets in Asia, but she also suggested that Russia is another potential market, which Hurtigruta is currently considering for the future.

Shipping: Mikko Niini: Chairman of the Board, Navidom Ltd

Mikko Niini provided an overview of Finland's icebreaking industry. He explained that Finland's cold climate and icy waters required the country to start building icebreakers and develop the first ice lab in the 1960s, making them industry leaders. As icebreaking is a necessity for many northern states, the industry has expanded through international collaboration, notably with Russia in the 1980s. This cooperation continues today, as Mr Niini himself was recently a part of a project involved in renewing Russian logistic systems. There has also been cooperation between the icebreaking industry and the commercial shipping industry, as icebreakers clear the waters for the merchandise vessels to sail. Mr Niini remarked that both collaboration and competition lead to innovation.

Finland's latest development is a 140-meter icebreaker, completed by the Arctech shipyard in 2016, with some breakthrough three-pod propulsion solutions, that uses liquefied and natural gas (LNG) as fuel. In addition, new icebreakers are expected to expand their role and assist in oil spill incidents. More advanced icebreakers are also needed to navigate the Northern Sea Route. Mr Niini commented on plans to build 15 icebreakers that will be used to export natural gas from the Yamal Peninsula; he is hopeful that these vessels could help develop the export potential, with one vessel loading every 40 hours. However, innovation and progress are not without challenges. In particular, the main challenge is development costs. Innovations require capital investment, and it can be difficult to convince vessel owners that the investments are worthwhile. Currently, the industry needs year-round icebreakers and greener options. Nevertheless, Mr Niini was optimistic about the industry's future, as he proclaimed

“Creativity is the solution, and Finland’s business. Towards the challenges”. Mr Niini explained that there has been a reduction in icebreaker use in the summer; however, they continue to be needed in the winter.

Drones: Rune Storvold: Senior Scientist and Head of the Unmanned Aircraft Group, Norut

Rune Storvold provided an overview of drone use in the Arctic. He remarked that, for a long time, drone use was difficult in the High North due to challenging weather conditions. However, now drone technology has become more durable and the craft can travel long distances. For example, he explained that a 20-kg drone could travel approximately 2,000 km, thus providing opportunities for a number of industries and services. Mr Storvold said that drones might contribute to better decision-making in the areas of emergency response, including search and rescue; renewable and non-renewable energy support, by informing decisions about where to build new installations; infrastructure inspection; maritime industry support, by mapping ice flows; and the mapping of animal populations. To this end, over 2,000 Norwegian companies are registered drone users and another 400 are waiting for approval. Russia, Finland, and Sweden also use drones for a number of purposes in the High North.

Despite the growing use of drones, there are challenges that will require innovative solutions. Firstly, there are issues concerning permits to fly drones in the same space as manned aviation, which can take up to three months to obtain. In addition, new international regulations will be required for cross-border activities. Secondly, new technologies are needed to make sure the drones are capable of dealing with Arctic weather conditions and that they can make full use of smart systems and sensor technologies. Despite the need for new technology, Mr Storvold is optimistic about the future of drones, considering their already wide use. He believes his company is well suited to be a pioneer for the future of drones in the Arctic. Mr Storvold clarified two issues. Firstly, he explained that drones are mostly being used by smaller companies, although they are becoming more popular among bigger operations. Secondly, he provided more information on what happens when drones fly in international airspace. For instance, in these situations there needs to be accountability, which varies, depending on where the drone was launched. If a drone leaves from an airport, it must follow the rules of the country in which the airport is located. When a drone departs from a ship at sea, it must follow the rules of the flag country associated with the ship, with responsibility falling to the captain.

Society: Lars Bäckström: Municipality Strategist, Kiruna

Lars Bäckström discussed developments in the municipality of Kiruna, Sweden, which is an interesting place. Although mining is the one of the main regional industries, continued mining was likely to result in the sinking of the city centre by 2050. Instead of seeing this as a problem, Mr Bäckström explained that this was an opportunity, and the decision was made to move the city east by 2.5 km. This move is just one part of the city’s overall transformation plan. The city is also working with local businesses to create

1,000 jobs and has established a university campus to accommodate approximately 400 full-time students.



Lars Bäckström.

Mr Bäckström wants to change the often-misunderstood image of the north. He challenges those that see the north as a dead-end street and suggests northern cities need to ensure people understand the opportunities that exist in the Arctic region. In particular, he wants to “create a society where people want to live”. This means attracting new industries and creating jobs in tourism and infrastructure, increasing the number of young and diverse groups of people in the region, and creating a high “quality of life”. To achieve this, Mr Bäckström believes cooperation is necessary and argues that northerners need to be the ones to determine their future.

[High North Hero Interview with Paavo Lipponen](#)

Contributing authors: Anders Edstrøm, Eleni Kavvatha, Leisen Khairullina, Sergey Konkov, Maryna Kulish, Kristina Maksymchuk, Polina Ponomareva, Danil Rusakov and Tatiana Semikova. **Lead authors:** Nana Harbo and Alisa Khubaeva.

Former Finnish Prime Minister, Paavo Lipponen, won the 2016 High North Hero Award. Due to health problems, Mr Lipponen could not be present at the conference. However, he shared his thoughts and ideas with the conference participants through a pre-recorded conversation with Arne O. Holm, Editor in Chief of *High North News*. In this interview, Lipponen, who served as Finland’s Prime Minister from 1995–2003 and as the former leader of Finland’s Social Democratic Party for several years, analysed the political situation in the High North.

Lipponen has worked to increase international attention on the economic opportunities, as well as the development opportunities, which exist in the Arctic. In his latest work, he wrote a report on the Arctic communication fibre cable stretching from Europe to Asia. According to Mr Lipponen, this project has the potential to become a success. The project could be significant for European business, as well as for other countries such as the United States, Russia, and even those in Asia. Finland has a new updated Arctic strategy, in which economic importance is highlighted. Moreover, the European Union has drawn attention to the potential in the north. However, according to the former prime minister, this is still not enough. Despite the environment being a major concern for the European Union, the Commission still recognizes the economic potential in the Arctic region. For example, there is a great need for infrastructure and investment up in the north, and that is fundamental for economic progress, particularly onshore.

One of the ongoing debates in the European Union is a potential ban on Arctic oil and gas. According to Lipponen, the European Parliament was wise to reject this proposal because it is not the right way, since Arctic questions cannot be tackled without broad Arctic cooperation. As he noted, all the Arctic states, and Russia in particular, must be included. The cooperation on the heavy oil ban in the Baltic Sea is a concrete example, given by Lipponen, of such an inclusive agreement bearing fruit. Lipponen further noted that more can be done in Finland to secure the rights of indigenous people, and this kind of attitude towards their rights is probably valid for all the Arctic countries.

Finland's chairmanship of the Arctic Council is another challenge for the country. The government has already been working intensively on it, during the United States' chairmanship. Finland has ambitious plans, but its main objective is to secure continuation of the good cooperation that it has enjoyed in the Council and in the Arctic region as a whole, while maintaining low tension. This matter also concerns the new Arctic Economic Council. The main challenge for Finland, as chair, will be to strengthen the Arctic Council as an institution, making agreements on how to tackle oil spills, on search and rescue, and on research. It is crucial to keep the Arctic a special zone, where cooperation is the main objective. There is still, to a certain extent, uncertainty about future East and West relations, but the importance of finding common ground for cooperation in the Arctic was emphasized.

Despite an uncertain and complex international situation, Lipponen sees no new Cold War scenarios now, but he states that the future is uncertain. For instance, what will be the Trump administration's Arctic policy? Furthermore, the situations in Syria and Ukraine are challenging. Nevertheless, all the existing problems and uncertainties will be tackled in the future, likely by the young, including those present at the High North Dialogue conference watching the interview with Paavo Lipponen: those, who, as he clearly stated, are going to shape the future of the Arctic.

Session 3: Innovating Arctic Governance

Contributing authors: Adeleye Adetunji, Svetlana Chesherbakova, Per Olav Duesten, Anna Liman, Yelyzavata Makarova, Anton Marunchyk, Elina Mariyushina, Michaela Pederson-Mecnab and Somnath Pramanik. **Lead author:** Saeed Hashemilalehabadi.

Laurence C. Smith, Professor of Geography at the University of California in Los Angeles, started with a reminder that the US is unique because it does not consciously view itself as an Arctic state, and that Alaska is constantly trying to push Washington to develop a particular Arctic policy. He continued by analysing the US perspective on the Arctic situation before and after President Trump assumed office. Professor Smith pointed out that 28 September 2016 was the date the first-ever Arctic Science Ministerial was held at the White House to advance research efforts; representatives of 25 governments and the EU gathered to discuss research priorities and future political and scientific cooperation. However, today, with the Trump government, US participation in the Arctic Council or Arctic issues is very uncertain.

Mr Smith stressed the importance of the relationship between the US and Russia. He continued that President Putin has demonstrated a willingness to meet with President Trump at the Arctic Summit in Finland. He further analysed the actual relationship between these two countries: the US–Russia relationship has become heavily politicized, due to allegations of election interference as well as the alleged relationship between the Putin government and the Trump administration. For this reason, the gains that have been made in Arctic cooperation have been clouded by US–Russian allegations. Russia’s current militarization of its Arctic region does not suggest increased potential for conflict. However, Russia would likely feel threatened by NATO expansion into the Arctic. Professor Smith maintains that, while the politics are unclear, the science is very clear that the Arctic is changing and there is an increase in the opening-up of shipping routes.

The second speaker was Suzanne Lalonde, Professor of Law at the University of Montreal in Montreal. As an international lawyer, Ms Lalonde sees Arctic issues from a legal viewpoint. She opened her speech by reviewing the Arctic’s present situation. She maintains that the Arctic Ocean is opening up and becoming a shared space. However, Arctic coastal states want to assign property rights to the Arctic Ocean. The perspective of the new Canadian Government was the second point that Professor Lalonde mentioned. There is a perception that the Trudeau administration is more interested in sustainable and social development in the Arctic, while the former Harper administration was more focused on militarization and economic development. Mr Trudeau has announced an Ocean Protection Plan of \$1.5 billion to preserve the Arctic marine ecosystem through a co-management approach with local indigenous communities.

The need for cooperation in the region to solve legal problems concerning the Arctic Ocean was the key issue stressed. She said that there is a chance to ‘do it right’ by putting innovative and efficient governance mechanisms in place before the Arctic Ocean opens up more thoroughly. The newest Canadian Marine Protected Area in the

Beaufort Sea is the first to be based on indigenous Inuit Ways of Knowing. The Arctic Council, led by Canada, has pushed for protected marine spaces by putting in a network of protected areas. She maintains there is a need for coordination between Exclusive Economic Zones between coastal states. The High Seas between circumpolar coastal states need protection, as environmental degradation of shared spaces will spill over into the delineated protected areas of coastal states. She concludes that we currently have sufficient legal tools in respect of the governance of the Arctic Ocean to do the thing right.

The third speaker was Sergey Katikov from the Russian Geographical Society. He began his presentation with some historical facts about the society he represents: the Russian Geographical Society is one of the oldest Arctic governance communities in the world. There are 87 regional branches, with more than one branch in Moscow. He continued that Arctic and Far-Eastern Floating Universities give the opportunity for practical research and learning on the high seas. The Geographical Society is engaged in the protection of endangered species, including polar bears and wolves. Another of this society's projects is the Arctic clean-up project, whose role is to clean the Arctic Oceans of non-recycled garbage and pollutants left from the Soviet era. Another project is Barneo Ice Camp, which is a three-day Arctic expedition to the North Pole. Mr Katikov talked about the efforts related to issues in the Arctic. He mentioned that the International Arctic Forum, held in Moscow in 2010, was dedicated to contemporary problems, environmental safety, people of the Arctic, and Arctic transport systems. As his conclusion, Mr Katikov stated that The Russian Federation would continue to cooperate with other states non-governmental, and research organizations to integrate environmental and economic development ventures in the region.

Mr Ajay Mathur, Director General at the Energy and Resources Institute in India, mentioned the significance of climate change. He maintained that of equal importance to future carbon emissions are the impacts of emissions that already exist in the atmosphere, given that India and the Arctic states are both extremely vulnerable to climate change. There is the opportunity for partnership between these countries. The Arctic has a critical role in governing sea ice, ocean acidification, weather patterns, and sea level rise. This also affects countries in the Global South, like India. Similarly to other speakers, Mr Mathur insisted on the necessity of cooperation. He observed that the Arctic region provides an excellent example of collaboration that can be used in other international organizations. The Arctic Council has successfully coordinated economic, environmental, and political interests between coastal states. The role of India in the Arctic Council was the third point in his speech; India has been an active participant in the Arctic Council and Arctic region for decades, through scientific biological and climate research. India has had permanent research stations in the Antarctic since 1983, and the country has been an observer state in the Arctic Council since 2003. Mr Mathur also stressed the importance of sharing knowledge. Northern countries have already accumulated a vast amount of climate data. These mechanisms are valuable information for institutions around the world. Mr Mathur ended his

interesting lecture by reemphasizing bilateral frameworks, drawing upon examples such as the Russia–Norway Bilateral Framework for Fishing as an example of bilateral cooperation.

The next speaker was Mr Pan Xingming from the School of Advanced International and Area Studies, at East China Normal University, Shanghai. He began by explaining the role of China. As an emerging economy, China supports a peaceful international environment for continued development. China is an important stakeholder in the Arctic region, as well as when it comes to climate change. Through international law, China wants to participate in Arctic affairs. The core principle of China’s engagement is “active participation” and “international cooperation”. China has been an official observer in the Arctic Council since 2003 and is a signatory to the Svalbard Treaty and to the United Nation Convention on the Law of the Sea and the United Nation Framework Convention on Climate Change. Having mentioned that climate change is a “common concern of all mankind”, Mr Xingming proposed that cooperation is compatible with national sovereignty, and the Arctic can be placed under the jurisdiction of international law as a shared environmental space. States share the obligations and responsibilities on matters of common concern for all humanity.



Suzanne Lalonde, Pan Xingming and Frode Mellemvik during the Q&A session.

Professor Xingming spoke of the Chinese One Belt, One Road initiative. From his perspective, the One Belt, One Road project can make a contribution to the Arctic region by linking the Arctic countries to Asia. The Silk Road Economic Belt was proposed in 2013 and will connect Europe and Asia through policy coordination, unimpeded trade, and mutual gain. As for the navigation routes, he maintained that

Arctic routes could be extended as a new shipping channel to the Silk Road Economic Belt and could be an expanded transportation route for the 21st Century Maritime Silk Road. Arctic routes are an indispensable part of China's foreign trade and commercial shipping network. The conclusion was that China would play an active role in participating in Arctic affairs, including cooperating with Arctic countries and international institutions.

Frode Mellemvik, Director of the High North Centre, concluded the first day with a reminder of some encouraging facts about the necessity of the future leaders of the Arctic region being innovative. Addressing the young students, he stated, "The Stone Age did not end because the humans ran out of stones. It ended because it was time for a rethinking of how we live." In years past, Arctic states were thinking about the Arctic region only in terms of production and planning, and they believed that they could plan our institutions around the environment. He continued, "Knowledge is the key to sustainable development, and competence is essential to problem-solving. Dialogue leads to 'rethinking' of current solutions to problems." Mr Mellemvik mentioned that Nord University and East China Normal University are forming a partnership to work together on energy and Arctic governance.

Day 2

High North Scenarios

Contributing authors: Max Gardiner, Jakob Sauntved, Isak Karstad, Alina Maliarchuk, Ekaterina Nechaeva, Mykhailo Ohui, Elena Poplavska and Anton Sitnik. **Lead author:** Anton Tugushev.

Anatoli Bourmistrov, Professor at Nord University, began his presentation by explaining how to build transformative capacities in the High North; he quoted Louis Pasteur: "Chance, favours and prepared mind are the key to innovations". Bourmistrov explained the methodology on how to work and create scenarios. He suggested to conference participants that youth is the future and that scenario building can create a possible picture of the future, preparing us for several outcomes. Furthermore, he stated that scenario building is a platform from which to create discussions. The background to these scenarios is that the students on the High North Dialogue Master course had one day to create three different scenarios, based on assumptions, uncertainties, and some underlying wildcards. Professor Bourmistrov described how the winners were selected by an evaluation panel and then he announced the winners. The winning group received diplomas and applause during the session and went ahead with their scenario presentation.



Professor Anatoli Bourmistrov with the winning group.

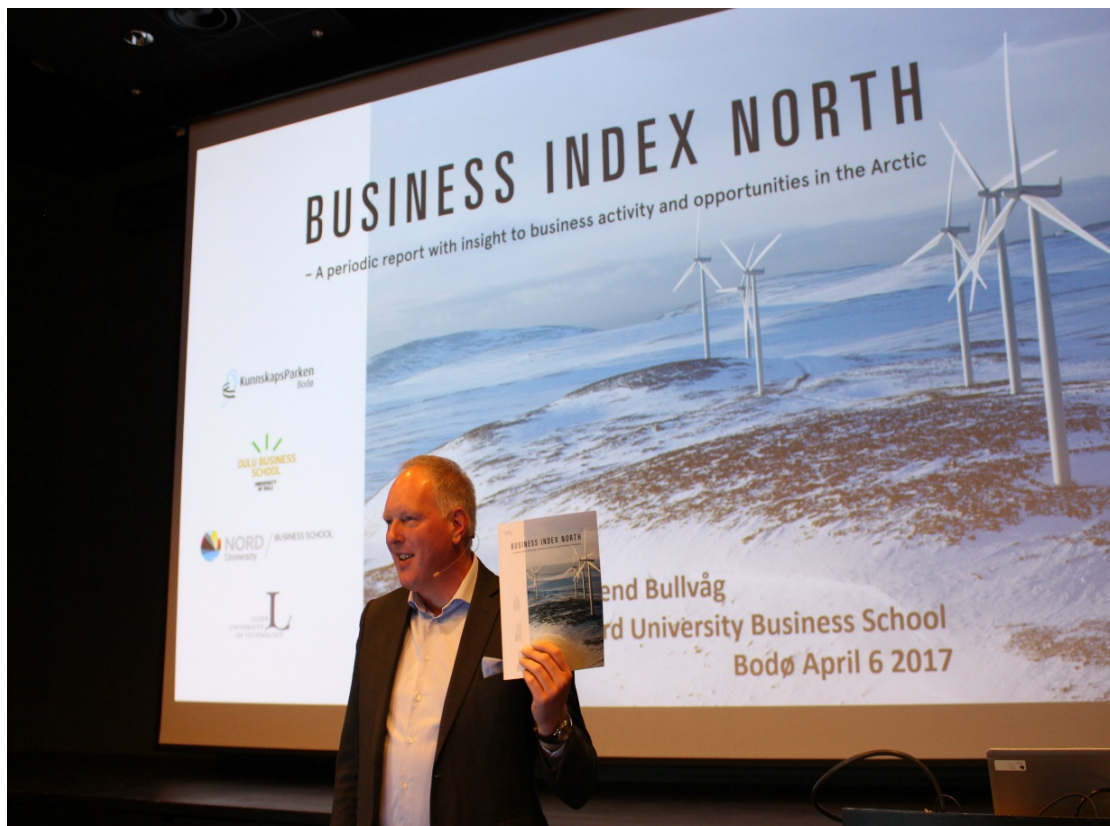
The winning group's presentation began by outlining the assumptions that they made in creating their scenarios. These included a continued increase in global energy demand, continued climate change, steady population growth, and an increased demand for petroleum products. The general emphasis was on the financial sector of Arctic development. Their first scenario examined what would happen if there were no cooperation between states in the Arctic. If this were the case, they predicted that there would be little interest in economic investment in the High North, as the barriers between countries would inhibit economic activity. In addition, with no cooperation between states, there would be a higher risk of military conflict in the region. The second scenario involved a high degree of cooperation between states, with the founding of an Arctic investment bank headquartered in Bodø. The creation of this bank, funded by Arctic countries, would reinforce cooperation between states and help to develop economic activity in the High North. This would lead to the financial sector having a prominent place in the Arctic. The third and final scenario was something of a middle path, with a moderate degree of cooperation, culminating in the creation of an Arctic insurance fund that states pay into. In this scenario, climate change continues and the Northern Sea Route becomes increasingly navigable leading to a surge in investment and business activity, especially in Siberia.

In addition to these scenarios, the groups presented wild cards, representing events that have a low probability of occurring but which would have a significant impact on financial services if they were to occur. The group identified the possibilities of a major

financial crisis in China, the US, or the EU; a massive cyber-attack on essential IT systems in the north; or a tsunami in the Barents Sea. All of these events, while unlikely to occur, would have a massive effect on the north's financial sector.

Business Index North

Erlend Bullvåg, Dean of the Nord University Business School, gave a talk on the Business Index North (BIN), a report that compares the business environment in the northern counties in Norway, Sweden and Finland. The idea of this index is the valuation of Arctic development, according to the business opportunities and challenges in the region. He stated that, through business, people could have a better understanding of what is happening, and this would also improve well-being. It is important to have the best, informed criteria in order to evaluate business. The level of this index should be measured in a periodic report with insight into the trends in business activity, taking into consideration the different groups, from investors to the media. This project is currently implemented from November 2015 until December 2018, but it is expected to continue.



Erlend Bullvåg

The presentation identified some of the challenges facing the High North such as the shrinking population of northern towns, the brain drain of talent away from the north, as well as the stagnating levels of job creation and the low number of patents being filed in the north. The presentation also pinpointed some of the opportunities in the north such as the surplus amount of renewable energy in the region. The scenario concluded

with the statement that the north needs to be developed by the people that actually live in the north, not by those in the south.

A key point was the general negative migration patterns – the brain drain – and the need for more people in the region, if it is to be able to develop and avoid going into a negative spiral without migration. Mr Bullvåg questioned whether education should be structured the same way in the north as it is in the rest of the country or be more “hands-on” and connected to the local environment and living experience. He pointed out that, outside of the Oulu region in Finland and the Umeå region in Sweden, the level of patent seeking and intellectual property rights is well below the national level. Bullvåg emphasized that the region should be developed by the people in the north themselves. He saw the north as a “goldmine”, with 25-50% of all energy production in Norway and Sweden, and emphasized that this energy should be used for production in the north. North Norway is a wealthy region with a reasonably good job market, whereas northern Sweden and Finland are relatively poor. The region has comparatively few start-ups, but those that are established are larger, due to the capital-intensive type of industries in the High North.

Session 4: Innovative Cross-Border Cooperation in the Arctic

Contributing authors: Elizaveta Nevolina, Ekaterina Korelskaia, Valeriya Melnyk, Zhanna Oliynyk, Sonia Takhar, Erica Gongloff, Miriam Schmidt-Jüngst, Kseniya Pak and Evgeniy Storozuk. **Lead author:** Maria Palacin-Silva.

Tomas Norvoll, President of Nordland County, focused his attention on people-to-people collaboration and emphasized that the High North region has good outlooks in terms of demography, economy and business. He also congratulated everyone on the results that have been achieved so far in the High North, with 30 years of cooperation in the Barents region. He also expressed the expectation that the Arctic Council will play an important role in future collaboration.



Odd Jarl Borch

Odd Jarl Borch, Professor at Nord University, highlighted the need for technological and institutional cross-border innovation to be developed by the Arctic states, in order to enhance safety in the region. He stated that research conducted at Nord University shows that the two most challenging areas of maritime safety are shipping and offshore petroleum exploration. Therefore, there is an obvious need for innovations in the spheres of search and rescue operations, and maritime preparedness. He stressed the importance of developing close cooperation between Norway and Russia.

He also focused on the challenges governments face due to their limited capacity to invest in preparedness and the development of necessary resources. However, achievements have been made, for example in the Norwegian context: technological innovation has led to the development of new designs for coastal vessels, to improvement in the quality of stand-by research and rescue vessels in the Barents Sea, and to the purchase of new rescue helicopters that are improved in line with the demands of Norwegian customers.

As for institutional innovations, the Norwegian Ministry of Foreign Affairs recently presented a white paper on *“The place of the oceans in foreign and development policy”*. In addition, there is an emphasis on the Polar Code, which is a major achievement in terms of establishing safer shipping activity and which contributes to vessels' preparedness for accidents. Another great achievement he mentioned is the agreement on search and rescue responsibility between the Arctic 5, as this provides a platform for all professional agencies to meet and develop operational standards. Professor Borch stressed the importance of conducting regular international meetings, despite political sanctions and military tensions. He believes that the establishment of a permanent network of universities and research institutes, both military and civilian, is vital for increased cooperation in education, research and the dissemination of knowledge.

Michael Byers, Professor at the University of British Columbia, spoke about possible opportunities for innovation in the Arctic, through outer space collaboration between the Arctic countries of Norway, Canada and Russia, as all play prominent roles in both the Arctic and outer space. In both fields, countries collaborate to produce innovative solutions to possible risks. Professor Byers outlined the way in which satellites are used to ensure proper fisheries management and for search and rescue operations. Canadian and Norwegian synthetic aperture radio satellites collaborate from pole to pole to

highlight ships in Arctic waters. The partnership is able to highlight illegal ships in the region, through satellite images of ships, which are not transponding. In an image shown in the presentation, the collaboration of satellites shows that vessels marked green are transponding ships and most likely commercial vessels. The ships marked red are not transponding and are most probably pirate ships. Byers outlined more uses of satellites: through tracking biological activity in the ocean, plankton can be seen, supporting environmental science and research, as well as industry.



Michael Byers.

Professor Byers finished his presentation by drawing attention to a new risk “*in the final frontier*” – repurposed SS19 missiles. These missiles, when launched into the atmosphere, release a toxic fuel: asymmetrical Dimethylhydrazine methane. Reports from UN development programmes in Kazakhstan show that the fuel causes “zones of ecological disaster”, as it falls thousands of square kilometres as an aerosol. In areas of the actual impact zone, where the rocket comes down, the geographic region is deemed a “zone of ecological crisis”, as rates of cancer are two to three times worse in affected zones. Russia has a stockpile of these missiles, despite having invested in newer technology. In addition, the areas that are most affected are off the north-east coast of Greenland, causing colossal issues in the food sources and ecosystems for the local Inuit populations. Another strongly affected area is that in which the Norwegian fisheries are most productive. Byers’ solution resides in the previous collaboration between the Arctic states. After the Cold War, Canada spent \$1 billion on decommissioning the reactors on all Soviet submarines because they posed a risk to all Arctic countries. Today, we have SS19 missiles that are using toxic fuel; this is another opportunity for collaboration and partnership, in which Norway is an intrinsic partner. Just as Norway, Canada and Russia have collaborated in the past, and are currently

doing so at the international space station – an emblem of collaboration, Byers believes there is scope and opportunity for this practice again today.

Anders Oskal, from the International Centre for Reindeer Husbandry (ICR), talked about Reindeer Herding Youth – Adaptation to Climate Change and Food Culture (EALLU), an Arctic Council project from 2015 to 2019. Oskal stated that the word ‘transboundary’ refers not only to land boundaries but also to boundaries of innovation. In order to look towards the future, not only must international borders be crossed, but boundaries around ideas must also be opened in order to nourish innovation. The people of the High North are living in a time of change. The Arctic is quickly becoming integrated as a part of the world community.

In addition, the Arctic is facing climate change impacts at a much higher level than the rest of the world, and with these impacts come challenges and opportunities. The Arctic societies are facing many challenges and are not always able to exploit opportunities. Infrastructure issues and remoteness have historically provided great challenges. The EALLU project aims to create development based on the premises of the indigenous peoples of the Arctic: their own knowledge and their own people. In facing change, they have three choices: 1. remain in the traditional economy, separate from the modern world; 2. turn their backs on tradition, leaving “backwards” reindeer herding and becoming employees at mining projects; 3. integrate the two, using a proactive way of thinking.

Oskal believes that being proactive is a good strategy, starting with what you have. Food in the Arctic is special and unique. Introducing traditional foods to modern markets is a new way to connect with the modern world. The culinary universe in the Arctic is only now emerging and represents an untapped potential that can add value to local communities and societies. It can also engage with indigenous youth, encouraging them to obtain culinary skills and helping them to bring their unique Arctic foods to the world at large. This project also recognizes that the traditional reindeer herding lifestyle includes hunting, fishing, gathering and harvesting, which can be shown to the rest of the world in an introduction to traditional Arctic foods.

As the ice is melting, the opening of sea routes might become an opportunity for indigenous peoples. Sea routes have a considerable potential as routes for indigenous peoples' entrance into world food markets, and Scandinavian and the Eastern Siberian and Alaskan coastlines are areas of focus for development. The ICR has already started to work with Tschudi Shipping to develop plans for slaughtering, processing, and transporting reindeer meat. Unprecedented change in the Arctic is expected. To adapt and innovate, we need active and able societies, engaged indigenous youth, who use their traditional knowledge to build their own future and better institutional frameworks, such as the Arctic Indigenous Peoples' Culinary Institute. Oskal envisions promoting the Arctic diet much like the Mediterranean diet. Commercializing it will allow indigenous communities to use climate and ecological change for innovation, rather than becoming victims of change.

Karen Everett presented her PhD work on border management and its multiple stakeholders in Yukon, Canada, focusing on the Pacific Northwest Economic Region and Arctic Caucus, where exports play an important role in the territory's economy. Export values are relatively high, despite having dropped slightly in recent years, due to the negative price development in the extractive industries. As Yukon does not have any ports, the transport of goods must go through Alaska. Agreements for cross-border trade and movement between Canada and the United States are in place for the Yukon Territory. Nevertheless, inspection fees at the border are the highest border-related costs for smaller companies. Both Alaska and Yukon are part of the Pacific Northwest Economic Region (PNWER), a statutory public/private non-profit organization that focuses on increasing the economic well-being of residents of the region. Under the umbrella of PNWER, Arctic Caucus is a partnership between Alaska, Yukon and the Northwest Territories, providing a forum in which to address and discuss issues relevant to the area.

In her presentation, Ms Everett pointed out that, within this partnership, a focus on the northern borders and import/export in the northernmost parts of PNWER is highly desirable and necessary. If the collaboration in that area proves to be successful, it could be an example for cross-border cooperation in other regions. Everett highlighted that cooperation over borders is of special importance to the indigenous peoples in the region, as the Canadian/US border has separated native nations, thus complicating their familial, economic, etc. interactions. Ms Everett concluded that there is still considerable room for academic/public/private partnerships for better border management in the region.

[High North Hero 2017: Scott Minerd](#)

Contributing authors: Chandara Chea and Valerio Mazzeschi. **Lead author:** Shauna Stoeger.

The High North Hero award was created by the High North Centre of Business and Governance at Nord University and consists of 50,000 NOK prize money. This award was created to honour a person, organization, or company that has contributed to development in the High North, business and industry in the north, drawn international attention to the High North, or contributed to innovation that has had significance for the region.

The High North Hero 2017 award was awarded to the influential investor, Scott Minerd, for his outstanding effort to make the world aware of the investment needs and opportunities of the Arctic. One of the world's most prominent investors and the Global Chief Investment Officer at Guggenheim Partners, Scott Minerd has dedicated himself to promoting investments and securing economic growth in the Arctic. Minerd is also known for his work on the Arctic Investment Protocol, a protocol initiated by

the World Economic Forum Global Agenda Council to promote sustainable and equitable economic growth in the Arctic.

When presented with the High North Hero Award by Anu Fredrikson, Director of the Arctic Economic Council’s Secretariat, Minerd emphasized his gratitude and the strong team that has worked by his side to get him to this point. He further encouraged more people, especially if they have little familiarity with the area, to look north, which he affectionately referred to as his second home. In his fond remarks about the Arctic region, Mr Minerd further emphasized the continued need for cooperation in the High North region, as this high level of cooperation among the eight Arctic nations sets a global standard for others. This level of cooperation was evident in Mr Minerd’s work, along with experts from the High North Region, in helping to shape the Arctic Investment Protocol, which promotes sustainable investment, doing no harm to the environment, local, and indigenous populations. This thinking was evident in remarks, which emphasized the need for sustainable development and investment in renewable energies and the human capital of the Arctic. This theme was carried throughout, as Mr Minerd continued his acceptance speech by stating that we cannot let those who do not understand the Arctic region undermine its development. The Arctic needs to be strengthened by challenges and investment, not weakened. This was further iterated by his statement that the High North needs responsible economic development, based on an agenda set by the people in the region. Because the High North is a prime area for exploitation, Mr Minerd continued, the people of the High North must be the ones who set the agenda and standard for development, innovation, and investment for the rest of the world.



Scott Minerd together with committee leader Anu Fredrikson

In his closing remarks, Mr Minerd quoted former United States President, John F. Kennedy, “Our task is not to fix blame for the past, but to fix the course for the future”. In choosing this closing quote, it was quite evident that Mr Minerd was looking forward to an optimistic future of the High North and the potential that the environment and the people of the region have to offer. His overall message was resoundingly positive and hopeful that the Arctic region will be able to set the standard for cooperation and innovation in the near future, making the region attractive for investors.

“Ocean and Possibilities”: Jonas Gahr Støre

Contributing authors: Anna Khorokhordina and Konstantin Kotilevskii. **Lead author:** Shauna Stoeger.

The Norwegian Labour Party leader, Jonas Gahr Støre, was introduced and interviewed by the editor of *High North News*, Arne O. Holm. In this discussion, Mr Støre talked about his ideas for the future of Norway and the greater Arctic region in respect of their potential to utilize the vast potential of ‘ocean space’. Støre described the ocean as “the language of Norway” because of Norway’s ability to harness some of the power and potential of the resources, but he also emphasized humans’ lack of understanding about ocean space when examining the entire ocean from top to bottom. This is one area, Støre stated, that could present a great opportunity for a growing population, if handled correctly.

In the past, oceans were seen as a way to transport goods, Støre continued, but now they are used for so much more, for example business, oil, gas, renewable energy, and food, such as fisheries. Støre stated that, for instance, a huge area of growth in Norway alone could lie in the fact that 70% of Norway is ocean, but only 3% of the food consumed in Norway comes from the ocean. In the future, this could present a huge area of opportunity.

If candidate Støre were to win Norway’s upcoming elections, he would want to launch a new nature ocean strategy to protect this under-tapped, vast resource. This strategy would aim to protect and develop the ocean as a resource. However, the ocean would first need to be protected; as Støre pointed out, the ocean itself is a threatened species with plastics endangering wildlife and marine species, as well as ocean acidification threatening biodiversity. Protection of this sort would require more international mobilization, in which he is willing to engage. Furthermore, Mr Støre spoke of developing the natural resources in the oceanic region of the Arctic. He stated that for far too long resources have been sent to the south because the north was capitally weak. This creates a disincentive for those in the north, where the ability to extract these natural resources is, to have any desire to explore these oil and gas resources. However, he would propose investment in oil and gas development, as well as renewable energy in the northern regions, but in ways that would make sure that capital is not directed away from the people actually living there, which is what has

happened for too long. Støre iterated that the resources in the Arctic should remain in the Arctic, and that wise politicians are able to direct market forces, avoiding such splits of resources and capital. This will require political dedication and direct input, investment, and innovation from people living in the region, something that Støre said is needed and that he is willing to direct much attention to.

Changing direction somewhat, Mr Holm and Mr Støre began to discuss cooperation in the greater Arctic region and how Norway fits into the larger global picture. Mr Støre discussed how most tensions in the Arctic or near Norway almost never stem from Norway itself but rather from other larger countries around the world. Norway often has to balance being a good neighbour and ally, which can sometimes be difficult. This proved to be the case after Russia and Norway signed a monumental cooperative sea border agreement. However, tensions arose between Russia and Norwegian ally states over the Russia–Ukraine crisis. Only recently, in March 2017, did the Norwegian and Russian foreign ministers meet in Arkhangelsk, Russia, for the first time in the three years since these tensions arose, to discuss the Arctic. Støre emphasized that these lags in discussion should not occur, as it is crucial to maintain dialogue during times of political disagreement; otherwise, cooperation will diminish in other important dimensions as well.



Jonas Gahr Støre and moderator Arne O. Holm.

Mr Støre also emphasized that, although Norway may be small compared to other Arctic states and may not hold as much international power as the United States or Russia, it has the potential to create international positive forward momentum

regarding the region. Because the United States has not ratified the International Law of the Sea and because their Arctic Council Chairmanship will be passing to Finland in mid-2017, the Arctic may no longer be as high up on the agenda. Furthermore, Norway has the ability to be both a neighbour and an ally on this issue, and may not fully need only the support of Russia and the United States in moving forward on all matters. Arctic issues, Støre claimed, are global issues, which can also engage other major players like China and India, and Norway has the capacity to do this. Because of Norway's unique position in Arctic innovation and cooperation, it has the creative advantage to be the leader in this topic, ahead of other larger states. Mr Støre had an optimistic outlook for the future of innovation in the Arctic and general cooperation in the region. He was also optimistic about the role of smaller states, such as Norway, and the opportunity for them to lead in the region and on the world stage. As Mr Støre stated, for many Norwegians, the Arctic is not some exotic location but, rather, right outside their front door. This experience has value, which the rest of the world can learn from, if cooperation will allow the world to listen.

[Session 5: Talking Barents: Being a Young Entrepreneur in the High North](#)

Contributing authors: Terhi Hautanen, Kai Kang, David Pfetser, Kateryna Protsenko, Mariia Shalabanova, Yuliia Siakaliuk, Mana Tugend, Arina Ustiukova and Jonas Sittampalam. **Lead author:** Juan Kong.

Session 5 took the form of a panel discussion between four young entrepreneurs operating in the Arctic region: Christine Galschjødt, Max Gouchan, Julius Oförsagd and Lars Theodor Kintel. The moderator, Amanda Åsberg, asked them questions concerning their careers paths. The young entrepreneurs generally argue that they care about bringing new ideas to the Arctic – “fresh blood” into the Arctic's arteries and veins. They stated that people mainly react positively to their choice to become an entrepreneur. People in the High North are supportive of entrepreneurs, particularly young ones. In their opinion, local communities are also one of the major drivers for entrepreneurship in the Arctic. Being an entrepreneur is particularly important for those who want to improve living conditions in the Arctic region. They believe that entrepreneurship may be one way to reduce outmigration as alternative to a normal life path, which are seen as becoming someone's employee. However, for those who are passionate enough to stay in the High North, entrepreneurship may be a better option because it creates new jobs, innovation and “fresh air” within the Arctic. To summarize, they believe that the Arctic regions represent a platform from which to make dreams come true and to shape a new picture of the High North in the future. In fact, the reduced number of people living in the Arctic enables easier access, for those who are motivated, to the entrepreneurship and find their speciality.



The panel of young entrepreneurs.

In the eyes of young people, in order to build a better future in the Arctic regions, a way to survive is to utilize the platform of entrepreneurship. Young entrepreneurs need to enhance teamwork, based on their own company culture. Although some of them may be afraid of taking risks, the High North constitutes the perfect platform for innovation because of its small size. As previously mentioned, the fact that the Arctic counts only a few motivated entrepreneurs gives them a specific credibility and force in the labour market. The reason for the entrepreneurs' success is that they believed in their project and went for it, without looking back. As one entrepreneur stated, "We need to believe that we can create solutions whatever the subject is." Accumulating professional knowledge is the key factor to becoming an expert. By acquiring professional skills, they are becoming more confident and acting with greater confidence throughout their career as an entrepreneur. Additionally, receiving support at the very beginning of their journey is often the key to success. One of the young entrepreneurs stated, "[It is necessary] to build partnerships [because it can be] challenging in a region where the distances are huge [to act alone]. Everyone needs capital for the company. Sometimes it [can be] frustrating to see the fish in the ocean but not have the capital to buy a boat and quotas." They truly consider that, above all, cooperation contributes to their success. For sustainable business development, they believe that there is a potential for cooperation between the Arctic States and the possibility to create a regional business market in the High North regions, such as the Barents area. Although these young entrepreneurs believed in and did achieve preliminary success, there are still some limits for them, especially when they are facing the world beyond the High North.

The main advice from the interviewed entrepreneurs to those who wish to follow in their footsteps is to identify where they want to go in the coming years, learn from the people who have already achieved success and follow their experience. The panellists also suggested that future entrepreneurs should test what they can do and not deny themselves. They literally advised, “Listen to your heart.” As one interviewee said, “If you have initial capital, experience in marketing and good ideas, then you [have the possibility] to create a small but serious business.” Anyway, it is always well to cast an anchor windward.

Session 6: Arctic in the Global World

Contributing authors: Daria Abarkina, Liliana Shestakova, Oleh Shtunder, Eva Veverkova, Elena Vinogradova, Tetiana Vozna, Denis Vyatkin, Yefan Yue, Benjamin Segobaetso. **Lead author:** Nojang Khatami.

Marit Berger Røsland, State Secretary of the Norwegian Ministry of Foreign Affairs, highlighted two perspectives and priorities in the High North. The first one is the strategic importance of the Arctic in foreign policy, and the second is the focus on creating sustainable economic growth in Norway’s part of the High North. Further, she talked about three areas of importance for the future of the Arctic: 1) adherence to international law; 2) strengthening international cooperation in the Arctic; and 3) sustainable management of natural resources in the Arctic. As Røsland remarked, the Arctic region is changing with global warming, melting sea ice, and more accessible shipping routes. Norway’s government must adjust policy to new realities and avoid making changes that become sources of conflict. The Arctic’s characteristics are stability and peaceful cooperation, she noted, and Norway’s goal is to extend this and share its position with other countries.

With a few unsolved disputes related to jurisdiction, the UN Law of the Sea Convention is the legal framework for cooperation in the Arctic. The Arctic Council is firmly supported by member states, permanent participants, and observer states, contributing to the continuing stability of the Arctic. The Arctic Council has proven a useful institution for handling regional challenges in the Arctic. The comprehensive studies it has carried out have provided crucial international negotiations on climate change, as well as international agreements. There is an increasing demand in the Arctic for resources: more food and more energy. Norway wants green innovation to ensure sustainable use of Arctic resources. Røsland emphasized that economic development and environment protection must go hand in hand.

The use of ocean resources is the foundation of Norway’s economy. Two thirds of exports come from sea-based activities and maritime resources. This spring, Norway launched both the National Ocean Strategy and a white paper on the role of the oceans in Norway’s foreign and development policy. The strategy outlined Norway’s policy for employment, growth and value creation in maritime-based industries. The goal of the white paper is to strengthen Norway’s position as a future-oriented ocean nation. For decades, Norway has pursued an integrated ecosystem-based management of oceans, which ensures that it will continue to harvest in the ocean, not only in the coming years

but also in the coming centuries. Norway has conducted petroleum activities in the Arctic region since 1979. These activities are subjected to the highest standards of environmental safety. It is possible to provide ocean-based industries, such as fisheries, eco shipping and energy, with a healthy maritime environment. In the Arctic region, one should respect international law, sustainable resource management, and regional cooperation, as these are fundamental for stability, economic growth, and human development. The Arctic cooperation we have today serves as a model for regional cooperation elsewhere, Røslund noted.

Jim Dehart, the Chargé d’Affaires ad interim of the United States to Norway, in his presentation, also focused on the importance of international law. This included a discussion of the US’ use of the Arctic zone as an area of peaceful collaboration and the importance of cooperation between the Arctic and non-Arctic states. Dehart summarized his presentation in three major points. Firstly, the US plans to pay greater attention to the Arctic region, and the attention is directed towards a sustainable future. In the past 10 years, the US has not been so focused on the Arctic region, but that may change. The Arctic is a frontier for the US; only a small fraction of its population lives in the Arctic.

The US has done a good job in the Arctic Council, focusing on the country’s initial goals and projects. It has promoted work to reform telecommunication and infrastructure, which will contribute to the development of communications in the region. Under its own chairmanship, the US has performed a series of exercises and, together with the Arctic Council, has negotiated a binding agreement on scientific cooperation, which will be signed at the forthcoming Arctic Council Ministerial meeting in Fairbanks. Furthermore, the US plans to use the Arctic region as a zone of peaceful cooperation. It has little interest in introducing any security issues into the Arctic Council. It has great respect for the collaboration that takes place between Norway and Russia, which has proved to be constructive and pragmatic on issues such as search and rescue, fishery, border control, and on nuclear matters. The US also respects international conventions such as the UN Law of the Sea and ship guidance in the region. It is looking forward to welcoming all foreign ministers to Fairbanks.

Thirdly, since the US has recently had a presidential election, it will take time to outline priorities, sub-priorities, and particularly directions. It will take some time for the US administration to assess what they want to do in the Arctic; it is still in the early days of formulating its approach to this region.



Teimuraz Ramishvili.

The Russian Ambassador to Norway, Teimuraz Ramishvili, was also happy to emphasize his country's willingness to work with other countries to promote peaceful development in the Arctic. The ambassador stated that fifteen percent of Russia's GNP is produced in the Arctic region. Thus, like other countries, Russia wants peaceful and secure working conditions in the Arctic. Russia has its national projects, not only limited to fisheries and the oil and gas sector. For example, Russia's new programme focuses on the Northern Sea Route, meaning potential increased shipping opportunities. Additionally, in about five years,

Russia plans to clean up more than 50% of the tons of waste it has produced. Ramishvili was also keen to point out that it is important for all Arctic countries to look at the environmental challenges, as any kind of development will affect the environment.

Lastly, Erik Lundberg, Finland's Ambassador to Norway, spoke optimistically about Finland's approach to Arctic affairs and the upcoming challenges for the Arctic Council. He began his speech with the following words: "Finland has been successful in developing many things because of the Arctic climate, not in spite of it (...). The Arctic inspires us to find solutions to different problems." This means that many countries, not only Finland, are proud to be an Arctic nation. Finland's Arctic strategy was published in 2013 and updated in 2016, but its main objectives remain the same: a desire to be one of the leading actors in international Arctic policy and to help to promote stability in the region.

Finland has four priorities, which are infrastructure (telecommunication, new digital solutions), sustainable tourism, Arctic knowledge, and Arctic foreign and EU policies. Ambassador Lundberg also pointed out that active tourism is growing, but it must be balanced with sustainability. He stressed that EU cooperation with the Arctic is highly important for both sides, to promote sustainability and combat climate change.

During the conference, there was also an elaboration of Finland's priorities, which are: political cooperation; environmental protection; connectivity (the foundation for sustainable economic development in creating more connection in the north); meteorology (obtaining more specific information about the weather); and education (promoting more cooperation with different institutions in the Arctic). During the panel

discussion, all speakers pointed out the importance of increasing the cooperation between Arctic and non-Arctic states and especially of close dialogue with the EU.

In summary, taken together, all the talking points highlight the importance of sustainable economic development, increasing capital investment and political involvement, and switching to more eco-friendly technologies – all of this within a framework that ensures that the members of Arctic nations move forward with continued commitment to mutual respect and cooperation.



Elana Wilson Rowe (far right) from the Norwegian Institute of International Affairs (NUPI) moderated session 6.