

Arctic Futures Symposium 2019 Summary

Opening Keynote Speeches

The first keynote speech of the 2019 Arctic Futures Symposium was given by **Mr. Piet Steel**, member of the Belgian Polar Secretariat and Former Ambassador of Belgium to Vietnam. Mr. Steel emphasised that the Arctic is connected to the rest of the world through the climate system, trade and culture. Therefore, what concerns people and stakeholders in the Arctic should concern all of us. It is important to listen to what Arctic stakeholders have to say and what is important to them.

Ms. Veronica Veits (Director, Directorate on International Ocean Governance and Sustainable Fisheries, DG MARE, European Commission) stated that a safe, stable and prosperous Arctic is high on the EU's agenda. Half a million EU citizens live in the Arctic, but changes in the region affect everyone in the world. The Arctic is becoming warmer faster than other parts of the world, and, as a result, new economic opportunities are also emerging. Ms. Veits pointed to the Commission's 2016 Joint Communication and the three pillars, which have guided the Commission's policy: safeguarding the climate and the environment, sustainable development, and international cooperation.

According to Ms. Veits, the EU's Arctic policy has been successful. The Commission is pushing to reach the goals of the Paris Agreement, and there have been initiatives to combat black carbon and plastic litter in the oceans. The EU has invested in sustainable regional development in the Arctic and contributed to the work of the Arctic Council and

other multilateral fora. Ms. Veits highlighted that peaceful cooperation in the Arctic cannot be taken for granted and that continued EU involvement in the Artic is needed. The Arctic should remain a low tension, high cooperation region. Ms. Veits said that the new Commission will start working on updating the EU's Arctic policy.

At the beginning of his speech, **Mr. Lars-Gunnar Wigemark**, Ambassador at Large for the Arctic, European External Action Service, said, "I'm here to listen and learn from you who have more experience." He shared his reflections on the past and future of the EU's Arctic policy. In his view, there has been a certain continuity in the EU's Arctic policy, with several communications and the Global Strategy, but the policy needs to be further developed. It also needs to encompass a variety of themes, such as research, environment, transport and energy. The EU is directly supporting Arctic communities and engaged in the region through the Artic Council, for example. The EU also exerts power in some aspects, like transport, energy and combating pollution. On the other hand, the Arctic is affecting the EU, as important natural resources, such as fisheries, oil and gas, can be found in the region.

Mr. Wigemark stated that the Arctic does not always receive the attention it deserves. However, the newly established Arctic Friendship Group shows that there is growing interest in Arctic issues among Members of the European Parliament. There are a plethora of fora dealing with Arctic issues, and if the EU wants to further develop its Arctic strategy, it needs to keep an eye on those fora and issues, which requires resources and political interest.

According to Mr. Wigemark, the development of interest in the Arctic has gone through many phases. It began with the Northern Dimension policy, which was initiated after Finland and Sweden joined the Union. The 2008 Arctic Declaration emphasised multilateral cooperation. Today, broader knowledge and interest in the Arctic is emerging. Countries like China and India have become increasingly interested in the region, but also EU member states have stepped up their Arctic engagement. The Arctic has been globalised and this affects people in the Arctic.

As a conclusion, Mr. Wigemark posed some questions to the audience. Is the Arctic Council, founded in the 1990s, ready to face new challenges? Are multilateral fora able to provide solutions? Will local populations in the Arctic become bystanders? What will the population development look like? And where can the EU play an active role?

Mr. Einar Gunnarsson (Ambassador for Arctic Affairs for Iceland, Chair of the Senior Arctic Officials) expressed his joy to see interest in the Arctic in the European Parliament and the European Commission. The Arctic used to be a rather unknown region, but now it is becoming a melting pot of human activity. Mr. Gunnarsson raised the issue of climate change and said that the temperature should not rise above 1.5 degrees. He underlined the importance of the Arctic Council in providing scientific knowledge to be used as the basis for decisions. The Council is also an important forum for cooperation and gives indigenous people a seat at the table.

Ms. Elle Merete Omma (EU Coordinator, Sámi Council) stated that it is a shared responsibility to make the world a better place. However, responsibility needs to be linked with equal opportunities to make better choices. It is important that the Sámi people are able to control their own destiny, and new partnerships are the backbone of development. Ms. Omma shared three examples of how partnerships have created change in Sámi communities. First, the Sámi Arctic Strategy, published in October 2019, is based on the

right to self-determination and describes how to welcome visitors to traditional Sámi lands. The Strategy emphasises the right to decide how to use resources and the need to fill knowledge gaps. Second, the Sámi Council is developing a roadmap to create a Sámi Week. Third, the Sámi worked together with Disney during the making of the second *Frozen* movie in order to ensure that Sámi culture and traditions are respectfully presented in the movie. According to Ms. Omma, this is a good example of how to build capacities and should be used as a model when the EU develops projects.

Professor Jean-Pascale van Ypersele (UCLouvain, Belgium, Former IPCC Vice-Chair, Co-author of the UN Global Sustainable Development Report 2019) started his speech by saying: "Climate change is real, experts agree. It's bad. There's hope." He talked about the causes of climate change and the different scenarios on what will happen if the temperature rises by 1.5 degrees compared to 2 degrees. Changes can already be seen in the polar regions. The permafrost is thawing, and it contains almost two times more carbon, which will then be released into the atmosphere. Professor van Ypersele emphasised that 0.5 degrees does make a difference and will affect people's lives. The IPCC report on the Ocean and Cryosphere in a Changing Climate highlights the importance of coordinated action and education as well as climate literacy. Humanity has a choice, Professor van Ypersele concluded.

Panel 1: The Arctic Council in a Changing Arctic

Part 1

Moderator: Malgorzata (Gosia) Smieszek (Researcher, Arctic Centre, University of Lapland/ co-lead of a non-profit "Women of the Arctic")

Panellists: Einar Gunnarsson (Ambassador for Arctic Affairs for Iceland, Chair of the Senior Arctic Officials)
 Petteri Vuorimäki (Ambassador, Arctic and Antarctic Affairs, Ministry for Foreign Affairs of Finland)
 Thomas Winkler (Senior Arctic Official of Denmark)
 Björn Lyrvall (Ambassador for Arctic Affairs and Senior Arctic Official of Sweden)
 Bård Ivar Svendsen (Ambassador/Special Adviser for the Arctic and Senior Arctic Official of Norway)

The first panel was divided into two parts. The first part of the panel focused on the views of the Arctic states.

In his opening statement, **Mr. Einar Gunnarsson** talked about Iceland's chairmanship of the Arctic Council. According to him, people and communities will be priorities for Iceland.

The second opening statement was by **Mr. Petteri Vuorimäki**, who argued that from the news it is easy to get the impression that the Arctic is a geopolitical war zone, but this is not the case. The Arctic is characterised by cooperation.

The moderator, Ms. Malgorzata Smieszek, asked the panellists what kind of developments they see for the Arctic Council in the coming years.

Mr. Björn Lyrvall stated that the Arctic is of global concern and that in the coming years we need to focus more on resilience and adaptation. He also emphasised that the Arctic Council is a key venue for keeping cooperation alive.

Mr. Thomas Winkler said that geopolitical issues need to be dealt with, but they should not dominate the Arctic Council's agenda. Observers need to be kept close, but it is also important to remember who ultimately makes decisions. The Arctic Council needs to strengthen its communication efforts.

Mr. Bård Ivar Svendsen mentioned that Norway welcomes EU actions and contributions in the Arctic Council and stated that the working groups are important. Norway is hesitant to include security policy issues on the Council's agenda. The Arctic is still a stable region, and we need to make sure that it stays that way, he said.

Mr. Einar Gunnarsson talked about the impact of climate change and the different scenarios. How to deal with climate change is an important question for the future. He also raised two questions related to the geopolitical discussion around the Arctic: will we be able to retain cooperative spirit in the Arctic Council and will there be divisions among the member states of the Arctic Council?

Mr. Petteri Vuorimäki agreed that climate change is the biggest challenge. He also mentioned indigenous and local communities and the difficulties they may face in continuing their traditional ways of life. Regarding the observer states in the Arctic Council, he said that they are an opportunity and a challenge. Observers also need to make an effort and participate in the working and expert groups. Mr. Vuorimäki also highlighted that gender issues need to be taken into account, for example in the EU's new strategy.

Ms. Smieszek's second question to the panel was: What role could the Arctic Council play in the adaptation to climate change?

Mr. Gunnarsson emphasised that climate change is interwoven into everything the Arctic Council does.

Mr. Winkler said that the Arctic Council can play a role in environmental protection. The Arctic Council should increase cooperation with the Arctic Economic Council.

Mr. Vuorimäki raised the issue of societal resilience, but he also had a word of caution on adaptation: Adaptation to climate change cannot mean giving up. "It's happening anyway, so let's just adapt," is the wrong attitude, he argued. All efforts need to be on stopping climate change. The Arctic Council has an important role as a provider of scientific knowledge - for example, the expert group on black carbon.

Mr. Lyrvall said that the Arctic Council is mainly an observer, provider of knowledge, and it can raise awareness. Adaptation will be needed, as it is essential to be able to address inevitable developments.

Mr. Winkler argued that the Arctic Council should be stronger internationally.

A member of the audience asked the panel's opinions on whether the structures of the Arctic Council are outdated today. Does the Council need structural reform?

Mr. Lyrvall answered that the Arctic Council was set up in a different context and questioned whether it would be possible to create something else in this political climate. He stated that the working groups do a great job and that the Council as a whole works better than many other organisations. There is, however, ongoing work on reforming structures.

Mr. Gunnarsson said that the Arctic Council is a consensus-based organisation and that it should not be dismantled before something else is in place.

Mr. Vuorimäki thought that it is important to ensure that the Arctic Council remains the key forum for Arctic cooperation.

Part 2

Moderator: Malgorzata (Gosia) Smieszek (Researcher, Arctic Centre, University of Lapland/ co-lead of a non-profit "Women of the Arctic")

Panellists: Tove Søvndahl Gant (Policy Officer and Expert member of the UN Permanent Forum on Indigenous Issues [as of 1 January 2020])
Elle Merete Omma (EU Coordinator, Sámi Council)
Margretha Jacobsen (Representative of the Faroe Islands to the Arctic Council)
Bob Paquin (Head, Canadian International Arctic Centre)
Terkel Petersen (Senior Expert, Arctic Affairs, European External Action Service)
André Gattolin (Senator, Vice-President of the Commission on European Affairs, French Senate)

In the second part of the first panel, other Arctic stakeholders were able to share their views on the Arctic Council. Ms. Smieszek also asked them what kind of developments they see for the Arctic Council in the coming years.

Ms. Margretha Jacobsen emphasised the importance of multilateral cooperation and stated that the Arctic Council should have a big role in Arctic governance. The Arctic Council is a success, but there is room for improvement.

Ms. Elle Merete Omma said that the Arctic Council is unique in that indigenous people have a seat at the table. One challenge is implementation of the Council's recommendations at the local and national level. There is a need to think about how to ensure that the indigenous voice is strong in the Arctic Council. It is great that new countries are interested in Arctic issues, but it should not happen at the expense of indigenous people.

Mr. Terkel Petersen said that there are many things happening that are beyond the control of the Arctic Council, e.g. climate change. Having a balance between stakeholders is important.

Mr. Bob Paquin stated that climate change is an overriding concern for Canada. The Arctic Council needs to be able to address adaptation, mitigation and knowledge

production. People live in the Arctic and their livelihoods need to be maintained. Indigenous voice is important in the new Canadian Arctic strategy.

According to **Ms. Tove Søvndahl Gant**, there are dark clouds hanging over the Arctic – namely climate change and geopolitical issues. The credibility of the Arctic Council has been questioned. The Council needs to listen to self-governing regions more. There is also a need to showcase the results of what the Arctic Council does more prominently, so that it can retain its role as a global leader.

Mr. André Gattolin mentioned US Secretary of State Mike Pompeo's speech at the May 2019 Arctic Council Ministerial in Rovaniemi and argued that security is on the agenda of the Arctic Council. It is difficult not to have a connection between geopolitics and the Arctic Council. We must discuss all the topics that impact the Arctic, he said.

Ms. Smieszek asked the panelists: What can the Arctic Council do regarding adaptation to climate change?

Ms. Tove Søvndahl Gant argued that the Arctic Council needs to embrace all the UN Sustainable Development Goals (SDGs) and incorporate them into its work.

Ms. Elle Merete Omma agreed that using the SDGs in the Arctic Council's work would be useful. She added that the Sámi Council has tried to translate challenges and goals into their context.

Ms. Margretha Jacobsen argued that the Arctic Council has an institutional role in combatting climate change and that there is a need for a stronger sense of coordination.

Mr. Bob Paquin mentioned the Arctic Economic Council and talked about the challenges facing companies in the Canadian North, the majority of which are micro companies.

Mr. André Gattolin pointed to the Arctic Council's role in supporting research.

A member of the audience made a comment about how it is impossible to avoid questions regarding geopolitics.

In her reply, **Ms. Tove Søvndahl Gant** stated that geopolitical questions are not part of the mandate of the Arctic Council. She also brought up "soft security" issues, such as cybersecurity and corruption.

To sum up the discussions, the moderator (Ms. Smieszek) reiterated that the two important questions for the future of the Arctic Council concern climate change and geopolitics. She reminded everyone that it is important to remember that we are not doomed and that there are hopeful pathways. Cooperation is important, both public and private. The SDGs need to be incorporated into the work of the Arctic Council. There is also a need for greater support and education for Arctic youth.

Panel 2: The Overlap Between Safety and Security in the Arctic

Moderator: Andreas Østhagen (Senior Research Fellow, Fridtjof Nansen Institute; Senior Fellow, Leadership Group, the Arctic Institute)

Panellists: Harri Mäki-Reinikka (Ambassador and Special Adviser on northern policies at Finnish Ministry for Foreign Affairs' Arctic Team)

Heather Exener-Pirot (Research Associate, Observatoire de la politique et la sécurité de l'Arctique)

Gjert Lage Dyndal (Colonel (PhD), Royal Norwegian Air Force; Deputy Head, Strategic Assessment Capability (SAC) to NATO HQ in Brussels)

Kathleen Larkin (Arctic Security Officer, Office of Nordic, Baltic, and Arctic Affairs, U.S. Department of State)

Neil O'Rourke (Assistant Commissioner, Arctic Region, Canadian Coast Guard)

Natalia Markushina (Professor, School of International Relations, St. Petersburg State University)

Jari Vilén (Senior Advisor for Arctic Policy, European Political Strategy Centre, European Commission)

Mr. Harri Mäki-Reinikka argued that since the Cold War the Arctic has been one of the most stable regions in the world, and mentioned Finland as a producer of security. States need to give information on their military exercises as otherwise, mistrust will be created. Mr. Mäki-Reinikka said that while the Arctic is not a frontline, it is not unaffected by other conflicts. The Arctic Council is a confidence-building exercise and a place for the exchange of best practices. It is not a place for security issues, even though a forum for these is also needed.

In her presentation, **Dr. Heather Exener-Pirot** discussed the definitions of "safety" and "security". She argued that security is more than just military security and that talking about safety has contributed to security in the Arctic. Safety is not a zero-sum game; cooperation on safety can enhance regional security. Examples of safety-related activities include Search & Rescue, marine safety and pollution prevention. She stated that declaring a neutral zone in the Arctic requires nothing. Denuclearisation is unlikely, but it would be possible to do what everyone is already saying, that there is not going to be a war.

Dr. Gjert Lage Dyndal talked about the relations between NATO and Russia. He stated that NATO has a 360-degree perspective on security, but it does not have an Arctic strategy. Since 2014, both Russia and NATO have increased their military exercises. Russia has economic interests in the Arctic, such as energy and new sailing routes, and it is also trying to boost its superpower status. He also mentioned Russian militarisation of the region, and added that Russian capabilities on safety are important, but there are concerning developments regarding security.

Ms. Kathleen Larkin stated that the Arctic is seen as essential to US national security. She also talked about the definitions of safety and security. Safety, according to her, gives associations to protection against unintended threats like climate change and activities such as Search & Rescue, whereas security is connected to protection against malicious threats, like military operations and cybersecurity attacks. Low tensions in the Arctic should not be taken for granted. Russian military development and military exercises should be

noted. In addition, China is also increasing its role in the Arctic. China has, for example, tried to get a "near-Arctic state" status.

Mr. Neil O'Rourke argued that security encompasses economic, environmental and human security. He talked about the tasks of the Canadian Coast Guard, which does not have a hard security mandate. The Coast Guard is engaged in partnerships with different Canadian organisations, indigenous society and regional governments. The Coast Guard is also engaged in international collaboration through, for example, the Arctic Coast Guard Forum and with the United States Coast Guard.

Professor Natalia Markushina gave a presentation on the Russian view on Arctic security issues. The Arctic has recently become a priority in Russian foreign policy, which reflects growing attention towards the Arctic across the world. Key issues for Russia in the Arctic include the development of the region's natural resources, transport, border infrastructure and IT environment. As many other speakers, Professor Markushina stated that the Arctic is a region of peace and cooperation. She argued that Russia is looking for a balance between the USA and two powerful poles: Europe and China. Russia's national security strategy up to 2020 incorporates different spheres of state, society and individual: economic, energy, environmental, technological, food supply, informational and cross-boundary area safety as well as security in the sphere of cutting-edge technologies and education, national healthcare, culture and Russian regions.

Mr. Jari Vilén, who is the first Arctic Advisor in the European Commission, argued that there are two important issues: the rules-based world order is changing and there is increasing competition between the United States and China. Russia has been building up its military capacity since the Soviet Union's collapse, and China is focusing on its Belt and Road Initiative. According to Mr. Vilén, economic interests are maintaining the Arctic as a low-tension region. Regarding the EU's role in the Arctic, he said that the Finnish EU Presidency has been pushing the European Council to pass Arctic Conclusions and that the new European Commission will start working on a new global strategy when it takes office. Mr. Vilén stated that he wants to see a balance in the new Commission's position between climate change and the sustainable use of natural resources. He fears that some want polarisation.

The moderator, Dr. Andreas Østhagen, asked the panel: Does it matter that we discuss security policy at this conference in the end?

Dr. Exener-Pirot argued that the narrative of the militarised Arctic restricts what politicians say and what people expect to hear when Arctic issues are discussed. It limits the scope of the discussion.

Mr. Vilén stated that in the EU, it is the fisheries and maritime ministers who talk about the Arctic and occasionally foreign ministers. He lamented that none of the mission letters of the new European Commission President Ursula von der Leyen mention the Arctic. The EU needs to be reminded of the importance of the region. Mr. Vilén also said that climate change and the SDGs are going to be key priorities for the new Commission.

Mr. Mäki-Reinikka stated that there are interlinkages between all elements of safety and security, and that the EU's Arctic policy has internal and external aspects.

Mr. O'Rourke also pointed out that words matter, and that it is concerning that people have such a "limited" view of the Arctic.

Ms. Larkin said that the United States has adopted a broader view on security than the traditional military one.

Dr. Gjert Lage Dyndal talked about the indicators for conflict. He argued that because states spend very little on defence, we are not in an arms race yet.

Mr. Mäki-Reinikka said that he is worried about the arms control system globally. He also mentioned that education was one of the themes under the Finnish Arctic Council chairmanship.

The panel was also asked: China is the new hot buzzword in Arctic conferences. Is there a specific part of the Arctic that is vulnerable to China compared to the Mediterranean or the Baltic Sea?

Dr. Exener-Pirot argued that China's significance has been largely overestimated. China has no experience or capacity in the Arctic and even Poland does more Arctic research than China. In addition, China did not invent the concept of "near-Arctic state"; European countries did.

Mr. Vilén stated that it is a question about global power and dominance. Taking a positive view, he said that China might force other countries to think about what more they could do in the Arctic.

Professor Markushina argued that China is increasingly interested in the Arctic and is building capacities.

Ms. Larkin explained that the United States is concerned, in particular, about Chinese investments in critical connections and infrastructure, such as 5G and ports.

Panel 3: Gender Considerations in the Arctic

Moderator: Rósa Rut Þórisdóttir (Associate Scientist, Stefansson Arctic Institute)

Panellists: Erika Anne Hayfield (Associate Professor in Social Sciences, Faculty of History and Social Sciences, University of the Faroe Islands)
 Ellen Marie Jensen (Guest Researcher at the Center for Women's and Gender Research, UiT, The Arctic University of Norway)
 Laura Churchill (Youth Board Member, Pauktuutit)
 Malgorzata (Gosia) Smieszek (Researcher, Arctic Centre, University of Lapland/ co-lead of a non-profit "Women of the Arctic")

Dr. Erika Anne Hayfied's presentation focused on gendered (im)mobilities in the Faroe Islands. The Faroe Islands have a long history of high mobility and they have the highest level of female participation in the labour market in Europe. However, the labour market is highly segregated. A lot of men work at sea or in other counties, but women travelling for work is not considered as acceptable. Moreover, 40–50 percent of women work part-time. There are unquestioned assumptions about labour market structures. Women are seen as more natural carers, whereas men are culturally excluded from being caregivers. Dr.

Hayfield argued that there needs to be equal opportunities to share caregiving and equal opportunities to work.

Dr. Ellen Marie Jensen talked about gendered lateral violence in Sápmi. She started by defining the problem: 49 percent of Sámi women experience some form of violence in their lifetime, 22 percent of Sámi women experience sexual violence, and 80 percent of the perpetrators are known to the victim. The Norwegian Sámi Parliament has adopted some initiatives: for example, official public statements and recommendations have been made to the Truth and Reconciliation Commission. Three concrete measures include language and cultural competence, improved dissemination of information and more research on the problem and solutions. There have been numerous media reports on sexual violence in the national, provincial and Sámi press. Women have also shared their stories on social media.

Lateral violence can be defined as directing justified feelings of powerlessness, anger and shame onto other or less powerful members of one's own community. Dr. Jensen is involved in a narrative project which aims to illustrate the linkages between lateral violence and inter-generational trauma, imposed forms of patriarchy, settler or extractive colonialism, neoliberal policies, and silencing discourses on identity, subjectivity and realities.

Ms. Laura Churchill's presentation was about the work of Pauktuutit Inuit Women of Canada, which is the national representative organisation of Inuit women in Canada. The aims of the organisation are to foster greater awareness of the needs of Inuit women, advocate for equality and social improvements, and encourage the full participation of Inuit women in their communities, regions and the national level. Traditionally, Inuit women have been dependent on men, but men's skills are becoming less valuable when adapting to today's social norms. There are high suicide rates, especially among young Inuit men.

Ms. Malgorzata Smieszek talked about "Women of the Arctic", which is a non-profit association registered in Finland. It seeks to raise awareness, support and maintain a focus on women and gender related issues in the Arctic. Ms. Smieszek argued that gender issues are hardly ever part of discussions about the Arctic. Monitoring changes and trends in the Arctic is key, and women and men often experience change in distinct ways. Understanding the differences between women and men is central to designing better policy responses.

The moderator (Ms. Þórisdóttir) asked the panellists: How do you see gender issues addressed in policies?

Ms. Smieszek replied that all Arctic states have gender policies but they lack realisation. Gender equality is a Sustainable Development Goal (SDG) in itself, but it is also needed in order to achieve the other SDGs. However, there is not just one trend in the Arctic. Regions are different.

Ms. Churchill mentioned policies for mining companies and how they take gender issues into consideration.

Dr. Jensen pointed out that women often have higher education and professions, whereas men work in primary industries. This masks the problem of violence. Women also often leave the communities, which results in gender imbalances.

Dr. Hayfield said that there are still some very strict differences in male and female employment in the Faroe Islands. This needs to be addressed from a very young age.

Panel 4: Arctic Labour Force and Demographics

 Moderator: Federica Scarpa (Communications Manager, Icelandic Arctic Cooperation Network (IACN), International Arctic Science Committee (IASC))
 Panellists: Verena Gisele Huppert (Ph.D. Fellow Aalborg University, Arctic Consensus, Kommuneqarfik Sermersooq and Greenland Business Association)
 Tonje Nermark (Vice-President Strategic Communications and Public Affairs, Mo Industrial Park)

Odile Joannette (Executive Director, Wapikoni Mobile)

Marita Vang Rasmussen (CEO of the Employers Association in the Faroe Islands, House of Industry)

Ms. Verena Gisele Huppert talked about the importance of understanding employees' preferences in order to retain them in the Arctic region. Employers have certain needs, but these needs may not match the preferences of employees. From the employers' point of view, there is a skills gap, lack of opportunities for re-education, low mobility of the labour force and an unattractive labour market. On the other hand, values that employees rate highly include communication, collective values and nice colleagues, and the possibility to get a raise. Surprisingly, the job's correspondence to education and flexible working hours are not valued highly. Ms. Huppert stated that there is a need to train the Arctic labour force, but we need to let the people set the agenda.

Ms. Tonje Nermark represented the business voice on the panel. She talked in detail about Mo Industrial Park, which is one of the largest industrial parks in Norway. Mo Industrial Park has difficulties in recruiting skilled workers, as people are moving out of North Norway. At the same time, the government is pointing towards the resource-rich North. Ms. Nermark emphasised that academic institutions need to provide relevant education in the North. It is important to ensure that businesses in the region are competitive and able to take advantage of the opportunities provided by green growth.

Ms. Odile Joannette introduced Wapikoni Mobile, a non-profit indigenous organization based in Canada. It provides workshops, mentoring for young people, and for example, film screenings. Ms. Joannette argued that change must come from the grassroots level. One of the aims of Wapikoni Mobile is to inspire young people and get them involved in thinking about future jobs. As she pointed out, 75 percent of today's jobs did not exist 35 years ago.

Ms. Marita Vang Rasmussen talked about the demographics and labour force of the Faroe Islands. The Faroese labour force is well educated, the unemployment rate is low and mobility is very high. However, housing is a challenge. Previously people left to seek higher education and many did not come back, but this pattern is now changing.

Panel 5: Sustainable and Innovative Uses of Arctic Biological Resources

Moderator: Christian Prip (Senior Policy Analyst, Fridtjof Nansen Institute)

Panellists: Nikoline Ziemer (Business Development Manager, Royal Greenland)
 Li Skarin (Project Manager, PIKAB, Piteå Municipality Group)
 Jean-Sébastien Moore (Professor, Université Laval; Coordinator, Laboratory of Evolutionary Ecology of Northern Aquatic Resources, l'Institut nordique du Québec)
 Tanja Lepistö (Senior Advisor, East & North Finland EU Office)

Ianja Lepisto (Senior Advisor, East & North Finland EU Office)

Ms. Nikoline Ziemer talked about business development in Greenland and the creation of new products. The fishing industry is the primary source of income for the Greenlandic economy, but new products like seaweed are emerging. Ms. Ziemer explained how seaweed can be cultivated, harvested and shipped. However, new solutions and better legislation are needed to make exporting seaweed easier: at the moment, several different permits are required, which is costly and time-consuming.

Ms. Li Skarin began her speech by showing the audience that urban life does exist in the Arctic and that images of the Arctic are often outdated. She stated that the population in Luleå, Sweden is growing too slowly and there are difficulties to find employees to work in green industries. According to Ms. Skarin, the Arctic region possesses many assets. Its cold climate, for instance, can be useful for the car test market and data centre industries. In addition, the minerals found in Arctic regions are needed for digitalisation, and rivers provide a source for hydropower. Forests are another asset of the Arctic and can help provide solutions to, for example, climate change.

Professor Jean-Sébastien Moore's presentation focused on Arctic char fisheries in Canada. Food insecurity and unemployment are key problems in Inuit territories. In terms of commercial harvests, there is still plenty of room for growth. Demand for char exceeds the current supply and many communities identify the development of local char fisheries as one of their top priorities. Scientific tools, such as genomic tools, contribute to the sustainable growth of fisheries. It is also important to understand complex migrations and support community-driven hatchery projects. As an example, Professor Moore introduced the FISHES project (Fostering Indigenous Small-scale fisheries for Health, Economy and food Security). The project maps current knowledge and understanding of fish stocks and identifies food security challenges as well as how to respond to them through policies and local initiatives.

Ms. Tanja Lepistö discussed the forest-based bioeconomy from the Finnish perspective. The harvesting process in Finland makes use of the whole tree. Bioenergy has the potential to replace fossil fuel energy and add to social and economic sustainability. Pulp mills, for example, produce more energy through side streams than they need themselves, and can sell energy to others. Wood is also increasingly being used for public building. The forest itself is important in many ways: traditional needs, recreational, source of non-wood products, ecotourism and targets related to biodiversity and climate. According to Ms. Lepistö, Finland can be proud of its history regarding research on quality and quantity of forests. Definitions on what is sustainable should be based on research and knowledge.

The moderator (Dr. Prip) asked the panel: What is needed to move forward?

In her reply, **Ms. Ziemer** raised legislative needs to make it easier to work with new products.

Other panellists mentioned the costs related to testing and licensing biofuels, access to markets, the scarcity of the labour force, and the definitions concerning the sustainable use of forests. Early dialogue with indigenous people is important to ensure a code of conduct and good contracts.

Closing Statement

Mr. Nils-Olov Lindfors (Councillor, Region of Norrbotten; Chair of the Northern Sparsely Populated Areas (NSPA) network) delivered the closing statement of this year's Arctic Futures Symposium. He encouraged people to move to the Arctic, and said that we need to develop the European Arctic together in a positive way. The Arctic region has a lot of assets, and it can become the first climate-neutral area in the world. He argued that the EU should focus on investments that create added value. The Northern Sparsely Populated Areas (NSPA) network should be involved when new policies regarding the Arctic are developed, as we are the ones who live there, he said.

Many thanks go to Ms. Mirva Männikkö, Coordinator at the East & North Finland EU Office, for writing this summary of the 2019 Arctic Futures Symposium