

# **Summary Report**

The opening keynote session of the eighth Arctic Futures symposium started with an overview of the European Union's (EU) engagement for the Arctic by Mr. João Aguiar Machado, the European Commission's Director General for Maritime Affairs and Fisheries. He pointed out that EU funding, notably through regional development funds and funding for research and technology, has been a key factor in driving sustainable growth in the European Arctic region and that the EU is committed to continue its financial support. Mr. Machado also underlined that EU's engagement in the Arctic includes the Arctic Stakeholders Forum. So far, participants to the latter have expressed broad agreement that the EU should encourage sustainable investments, notably by focusing on supporting innovation and creating industries and a circular economy, and through a smart specialisation strategy. Machado concluded by ensuring that Arctic people can count on the EU's full support in the years to come.

Mr. Kuupik Kleist, former Premier of Greenland and now and Advisor to the Inuit Circumpolar Council (ICC), continued the opening keynote session by addressing the question of economic development in the Arctic. Highlighting the urgent need and the desire of the Arctic people for economic development and the enhancement of their living conditions, he emphasised the paramount importance - in the view of the ICC - of ensuring that Arctic peoples get their fair share of any profit coming from new economic activities. Economic development must also be pursued in close cooperation between European countries, companies and Arctic peoples. Regarding the interest of European industries to gain easier access to Arctic minerals, Mr. Kleist urged for concrete steps to be taken in terms of investments to develop the Arctic metals industry; otherwise opportunities offered by Asian investors in this sector will be seized instead.

The third keynote speaker was **Mr. Jean Lemire**, Québec's new envoy for Climate change, Northern and Arctic affairs. Mr. Lemire, a scientist who has led expeditions in the Arctic, drew attention to the fast pace of changes in the region and highlighted the significant decline of old sea ice over the last 15 years. He underlined that the effects of climate change are faster and stronger in the Arctic and will affect the entire global climatic system. Mr. Lemire argued that while we need to think about the protection of the Arctic environment, we also have to think about adaptation. In this respect, subnational states have a key role to play, because very often they are closer to Arctic populations, given their role in delivering social services.

# Panel 1 - Arctic Council Engagement with the EU

The first panel session featured a discussion with representatives from the European External Action Service, the foreign ministries of Arctic Council nations, and Permanent Participants on the Arctic Council. Asked to comment on the EUs' engagement in the Arctic, members of the panel converged to a great extent in their views. They expressed their appreciation of the EU's involvement, not least through its Arctic Stakeholder Forum, and identified global climate issues as well as science and research as key areas in which the EU can play a major role in the Arctic. Norwegian Ambassador for Arctic and Antarctic Affairs Anniken Krutnes said that it is also important that the EU be engaged in keeping the Arctic as a place where people can live, while Swedish Arctic Ambassador Björn Lyrvall mentioned three areas where the EU could contribute more: smart specialisation, infrastructure and transport, and digitalisation. Ms. Asa Larsson Blind, President of the Saami Council, stated that one area where there's room for improvement is the empowerment of Indigenous peoples in the Arctic, by helping to strengthen their organisations, so that they can participate on an equal level with other stakeholders in the region's governance. A further aspect that could be improved, according to Ms. Blind, is finding ways to make EU funding more accessible to smaller institutions and smaller collaborative projects.

The members of the panel also addressed the challenging issue of whether and how economic development in the Arctic can be combined with the preservation of the region's vulnerable environment. The panelists agreed that environmental protection and economic development are not mutually exclusive and both need to be pursued in a balanced way, notably by using the United Nations' Sustainable development goals (SDGs) as guidance. Mr. Pekka Shemeikka from the Finnish Ministry of Foreign Affairs and Chair of the Arctic Council's Sustainable Development Working Group, said that Finland, which chairs the Arctic Council until 2019, wants to encourage using the SDGs as targets and indicators in the Arctic. In a similar vein, Ms. Marie-Anne Coninsx, the EU's new Ambassador at Large for the Arctic, reminded the audience that the promotion of sustainable development is one of the EU's top three priorities related to the Arctic and therefore, the EU strongly supports the development of sustainable innovation and solutions in the region. Mr. K.G. Moore from the US Embassy in Copenhagen suggested

that public-private partnerships could be a good way to encourage sustainable development solutions.

Åsa Larsson Blind stressed that as part of the balancing act between economic development and environmental protection, it is important to discuss what kind of activities are prioritised. For her part, Ms. Mira Kleist, Greenland's Representative to the Arctic Council, emphasised that development cannot be sustainable if it does not involve local people, with due consideration for their first-hand knowledge of the Arctic. She also pointed out that seal hunting, whose products have been banned by the EU, is actually a very sustainable economic activity from Greenland's point of view.

## **Moderator:**

**Timo Koivurova** (Director, Arctic Centre, University of Lapland)

#### **Panelists**

Pekka Shemeikka (SDWG Chair; Senior Adviser of Arctic Cooperation, MFA Finland)

Marie-Anne Coninsx (Ambassador at Large for the Arctic, European Union)

Björn Lyrvall (Ambassador for Arctic Affairs, Swedish Ministry for Foreign Affairs)

**Anniken Ramberg Krutnes** (Ambassador for Arctic and Antarctic Affairs for the Kingdom of Norway)

Árni Þór Sigurðsson (Icelandic Ambassador to the Arctic)

**Hanne Fugl Eskjær** (Arctic Ambassador for the Kingdom of Denmark; Head of Department, Arctic Affairs and Northern America, Danish MFA)

**Åsa Larsson Blind** (President, Saami Council)

**Mira Kleist** (Special Advisor, Foreign Affairs Department of the Government of Greenland; Greenlandic Representative to the Arctic Council)

Kate Sanderson (Head of Mission, Mission of the Faroes to the European Union)

**Bob Paquin** (Head, Canadian International Arctic Centre)

**Kristian G. Moore** (Regional Coordinator for Environment, Science, and Health Affairs, US Embassy in Copenhagen)

# Panel 2 – The Future of Arctic Research Cooperation

In the second panel, which focuses on Arctic research, Gunn-Britt Retter, Head of the Arctic and Environment Unit on the Saami Council, and David Hik, Professor of biology at the University of Alberta, reminded the audience of the importance of including Indigenous people's traditional knowledge in scientific research projects. In order to effectively implement this principle, which has already been recognised in past declarations and policies, such as the Arctic Science Cooperation Agreement, Ms. Retter called for strengthening Indigenous institutions. On this point, Prof. Hik suggested that we should not necessarily create new institutions, but we should be creating room for Indigenous scholars within existing institutions. Prof. Hik also encouraged efforts to foster interdisciplinary cooperation in Arctic research and making funding more accessible and flexible to allow of such cooperation to take place. Andrea Tilche, Head

of the Climate Action and Earth Observation Unit at DG RTD, argued for the increased sharing of research infrastructures among researchers from all over the world working on Arctic research. On a different matter, Elisabetta Vignati (European Commission) made the case for incorporating the questions and needs of policy-makers from the very start of research projects focused on the Arctic. Finally, the panelists supported the idea - promoted by the moderator, Susan Barr (President, International Arctic Science Committee) - of further involvement of social scientists and scholars from the humanities in Arctic research in collaboration with natural scientists.

#### Moderator

**Susan Barr** (President, International Arctic Science Committee)

#### **Panelists**

Andrea Tilche (DG RTD, Head of Climate Action and Earth observation unit)
Petteri Taalas (SG, World Meteorological Organization; observer in Arctic Council)
Elisabetta Vignati (Head of Air and Climate Unit at EU Commission Joint Research Centre)

**Gunn-Britt Retter** (Head of the Arctic and Environment Unit, Saami Council) **David Hik** (Professor, biological sciences, University of Alberta)



## Panel 3 – Working Towards a More Sustainable Arctic

Discussing innovative ideas for sustainable development in the Arctic, panel three included presentations by two representatives of the industry and two researchers. Kjell Giaver, from Petro Arctic (Norway), informed the audience about some of the technologies, which already reduce or could reduce in the future, the footprint of oil and gas activities. Norway and the Barents Sea region are taking a lead position in the development of these technologies according to Mr. Giaver. Bo Krogvig, from LKAB (Sweden), shifted the discussion to the mining sector. He talked about the ongoing and constant sustainability efforts of LKAB, the biggest producer of iron ore in Europe. He said that the company currently produces the most climate-smart iron-ore products that can be found on the market, using 65% of the energy normally needed to produce iron. The company is also working on a project involving the use of hydrogen instead of coke and coal within steel processes, which could significantly reduce CO<sub>2</sub> emissions.

René Therrien, professor at Université Laval in Quebec and president of the implementation committee of the Institut nordique du Québec (INQ), talked about the activities of this new institute, which aims to foster the sustainable development of northern Quebec by bringing together numerous public, private, and academic partners, as well as the aboriginal communities. The INQ has developed a vision based on the integration of scientific and aboriginal knowledge and based on a multi-disciplinary approach. Finally, Katherine Weingartner from the George Washington University presented an international research project focused on Arctic urban sustainability. Started in 2016 and running until 2021 with funding from the US National Science Foundation, the project aims to provide tools to advance urban sustainability in the Arctic, notably a sustainability index that could be used by cities of the region.

#### **Moderator:**

**Arne Riedel** (Fellow, Ecologic Institute)

#### **Panelists**

**Kjell Giæver** (Director, Petro Arctic)

**Bo Krogvig** (Senior Vice President of Communications and Public Affairs, LKAB) **René Therrien** (President of the Implementation Committee of Institut nordique du Québec and Vice-Dean of Research, Faculty of Sciences and Engineering, Université Laval)

**Katherine Weingartner** (Arctic PIRE Graduate Research Assistant, George Washington University)

## Panel 4 - Investing in education and economic opportunities for Arctic residents

The fourth panel looked at issues of social and economic development in the Arctic. Addressing the question of entrepreneurship in Arctic Indigenous Communities, Elle Merete Omma, from the Saami Council, pointed to the need for capital and mentorship to turn good ideas in indigenous communities into projects, but also the need for capital

providers that let them be "micro-entrepreneurs", which allows them to remain sustainable. Anders Møller Christensen talked about education in Greenland and emphasised that in order to reduce unemployment and enhance living conditions of the Greenlandic population, it is essential to improve the schooling level and the quality of education. Lars Balslev, for his part, focused his talk on state-owned enterprises in Greenland and how they foster economic opportunities. Shifting attention to the Västerbotten region in the north of Sweden, Erik Bergkvist shared his view that the remoteness and large spaces of northern and Arctic regions offer opportunities for innovation. The last presentation on the panel was by Kristin Røymo, mayor of the municipality of Tromsø in Norway. She stressed the urgent need to develop an in-depth understanding of what it means to develop a sustainable Arctic and underlined the lack of investments in the region to create economic opportunities.

## **Moderator:**

Embla Eir Oddsdóttir (Director, Icelandic Arctic Cooperation Network (IACN))

## **Panelists**

Elle Merete Omma (EU Coordinator, Saami Council)
Erik Bergkvist (Chairman of the Regional Board, Sweden)
Anders Møller Christensen (Advisor, Former Assistant Governor at Danmarks Nationalbank)
Lars Balslev (Head of Section, Premier's Office, Government of Greenland)
Kristin Røymo (Mayor of Tromsø Municipality)

# Panel 5 - Opportunities in the Arctic bioeconomy

The last panel focused on current and future opportunities in the Arctic bioeconomy sector. The opening remarks from President of Nordland County Council Tomas Norvoll suggested that a growing bioeconomy sector can be an answer to sustainable economic development. After a presentation by Ólavur Gregersen on the bioeconomic potential of the West Nordic region, Ulrik Maki Lyberth talked about the seaweed business that he started a few years ago in Greenland: "Maki Seaweed Greenland". He laid out the various reasons that make the production of seaweed a promising avenue for Greenland, where its use is increasing fast according to Mr. Lyberth. Seaweed is found in large amounts in the region; it grows in clean waters (in contrast with Asian seaweed, which is often harvested in polluted waters). Its production is sustainable (seaweed cultivation is a carbon sink), and it is a very healthy product (a "functional food").

Professor Jeanette Hammer Andersen presented Biotech North, an innovative biotech cluster supporting entrepreneurs in Arctic marine bioeconomy. With Professor Sirpa Kurppa's presentation, the focus shifted to the sustainability of the land-based bioeconomy in Arctic Finland. Stephen Mooney, for his part, talked about the Cold Climate Innovation (CCI) unit at the Yukon research Centre in Canada, whose mandate is to stimulate the economy of the Yukon Territory by promoting innovation in cold

climate technologies within the local community. The projects supported by CCI include, for example, a very affordable residential greenhouse kit which stores the heat during the day, and runs on one Canadian Dollar a day. Elisabetta Balzi, from DG RTD European Commission, closed the panel with some comments, mentioning notably the importance of the engagement of citizens and users about the bioeconomy. She highlighted that the EU, as part of its Bioeconomy Strategy, aims to facilitate research, innovation and investments in this sector.

#### Moderator

**Tomas Norvoll** (President of Nordland County Council and Chair of the Board, North Norway European Office)

## **Panelists**

**Ólavur Gregersen** (Managing Director, Ocean Rainforest; Partner, Syntera) **Ulrik Maki Lyberth** (Founder and owner, Maki Seaweed Greenland) **Jeanette Hammer Andersen** (Professor in Marine Bioprospecting, University of Tromsø; Board Member, Biotech North)

**Sirpa Kurppa** (Research professor, Natural Resources Institute of Finland) **Stephen Mooney** (Director of Cold Climate Innovation, Yukon Research Centre) **Elisabetta Balzi** (Deputy Head of Unit for Marine Resources, DG RTD)

