

## **Plenary Session III: The Accessible Arctic in the Global Economy**

Friday, September 26, 2008

Rapporteur: Markus Mager

This plenary session was chaired by Peter Johnson and Willy Østreng. Panelists were Oliver Krone, Lawson Brigham, Reynir Gislason, Bjorn Gunnarsson, Nicole Footen and Sergei Sutyryn.

Oliver addressed in his presentation two main issues:

1. Innovation and how to put innovation forward in the Arctic
2. Panarchy, as a possible structure of the Arctic “systems”

He pointed out the asynchrony in the development of innovation and panarchy in Arctic regions. Panarchy in systems theory uses continual adaptive cycles of growth, accumulation, restructuring, and renewal. Oliver showed how humans and nature are connected and can be seen as such a system that goes through these different phases. Innovations in the Arctic are mainly driven by adaptation of innovations that are coming from the “South”. Because of the lack of infrastructure in Arctic regions it is harder to implement these southern innovations. Most of the innovations have to be remodeled when applied to the Arctic. Oliver proposed a solution to this problem. It’s the knowledge of the people in the “North”. An active knowledge transfer from the “North” to the “South” and lessons learned from the “North” will help to put innovations forward in Arctic regions.

Lawson gave us an overview about challenges of the new maritime Arctic. The challenges are closely connected with the economic used of the Arctic Ocean. These uses are: mining, where mining products have to be delivered to market, a growing tourism industry, fishery industry that is moving northwards, oil and gas development and the discovery of new resources, summer sealift, exploration and science. Development in the

Arctic is closely connected to sea ice coverage. The Arctic Ocean is covered with sea ice for 8 months of the year. In the summer months strong sea ice retreats are observed which provides challenges and opportunities for the different activities mentioned above. Major concerns are marine safety and the protection of the environment. The arctic marine shipping assessment identifies these kinds of uncertainties in detail and will be completed in April 2009. Lawson's conclusion was that cooperation of all the Arctic states is required to address these new challenges.

Reynir gave us an overview of logistic challenges and opportunities in the Arctic from a transportation sector point of view. First he pointed out how the global economy will shift and the growing important role of the BRIC states. While the importance of the European, Japanese and North American economies will decrease in the next 50 years, the international economic roles of Brazil, Russia, India and China will increase. The shift in the global economy will change trade as well as shipping. There are environmental challenges as well as infrastructure challenges. In a "just in time" production environment, logistic plays a key role and has to be a reliable, consistent partner for the emerging industries. There will be no consistency without a suitable infrastructure. Reynir concluded that the northern sea routes will play an important role in connecting the "North" to the world's economy.

Bjorn talked about Iceland as a renewable energy society and how we could use and apply Iceland's experience being the "powerhouse of energy". Iceland is producing 100% of its electricity from hydro and geothermal resources. 80% of the energy used is produced by using renewable energy technology. The current challenge for Iceland is to eliminate the remaining 20% fossil fuel, mainly used for transportation purposes. In the long term, with matured hydrogen technology, Iceland wants to become a sustainable hydrogen economy. In the mid and short term biogas and methanol production as well as electric hybrid cars will address the remaining 20% fossil fuels. What was key for Iceland and what can be learned is, that a society needs to have a vision and knowledge, governmental support as well as know how and investment from the private sector. These elements will guarantee public acceptance and support of any kind of project.

Nicole talked about human trafficking as a human rights issue and policy responses of northern states. There are two main categories of abuse found in Arctic nations:

1. Sex trafficking
2. Labor trafficking

Victims are mainly woman and children and man are mainly trafficked for labor and war purposes. All of the victims have the fear of deportation because they don't have a legal status. The Arctic counsel sees the need for action and is concerned and most Arctic nations signed the "UN trafficking protocol" and implemented different policies. Nicole pointed out, that the problem is that there is no awareness and victims are seen as illegal immigrants. The implemented policies don't meet the need of the victims and we need cooperation.

Sergei presented on the global governance needs in the Arctic. He sees a need for global governance because of insufficient self regulation and the different kind of regulations in place that are executed on multilateral basis. Global governance is also important for a sustainable development of the Arctic's natural resources, but there are barriers. Global governance faces challenges and threats and we see a trend, a "dangerous trend" of reduced multilateral governance. Sergei suggests a network model of global governance in which the states collaborate with stakeholders and regulators. He stated that such a model could exhaust social and political pressure and would be efficient in decision making.