



Resilience related to Sustainable Development in Globalization

in Finland, Russia and Norway May 30 – June 5, 2016

Editors

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Contents

Calotte Academy 2016, a travelling symposium – an introduction	.1
Program and reports from the sessions	.3
Session 1: "About Resilience and Sustainable Development – theoretical discussion"	.3
Report from session 1	.3
Session 2: "Resilience and sustainable development by regions and sub-national governments"	.4
Report from session 2	. 5
Session 3 "About Resilience and Sustainable Development – theoretical discussion II"	.6
Report from session 3	.7
Session 4: "Arctic tourism"	.8
Report from session 4	.8
Session 5 "About Resilience and Sustainable Development – (best) practices"	.9
Report from session 5	10
Session 6: "Freedom of Expression and Media"	11
Report from session 6	11
Session 7 "Urbanization and regional development of the Arctic"	13
Report from session 7:	14
Session 8 "Resilience and sustainable development, and oil and gas drilling in the Arctic"	16
Report from session 8	16
Abstracts in alphabetical order	18
About Calotte Academy	35
About TN on Geopolitics and Security	38
About the Arctic Yearbook	39
About the Global Arctic Project	40

Calotte Academy 2016, a travelling symposium – an introduction

The Calotte Academy was again arranged in May 30 - June 5, 2016 in the Barents Sea area, the Finnish Lapland, the Northeastern corner of Norway and the Western corner of the Russian Arctic. After the Finnish sessions in Rovaniemi and Inari, the travelling symposium continued onwards to Kirkenes, Norway and from there to Murmansk in Russia. Then, a week later - due to the new more strict regulations in border crossing between Finland and the Russian Federation up in the North - we had to have Plan C and return to Rovaniemi via Norwegian border-crossing point Storskog-Boris Gleb.

In 2016 the annual, travelling scientific gathering and doctoral school took an explicit focus on resilience related to sustainable development in globalization, particularly in the globalized Arctic. The symposium sessions approached the overarching themes through addressing regionally important questions and concerns. They were discussed holistically from many angles and disciplinary approaches, and from the perspectives of past(s), present(s) and future(s), as well as from global. The presentations focused on topics such as mining, tourism, indigenous people's rights and alternative conceptualizations of sustainability or resilience. This principle has been implemented at the four previous Calotte Academies under themes, such as "Water – globally and in North Calotte", "Resource Geopolitics – Energy Security", "Resource Geopolitics – Sovereignty" and "Resources and Security in the Globalized Arctic" (See Final Reports of Calotte Academy 2012, 2013, 2014 and 2015 at <u>www.arcticpolitics.com</u>).

The touring symposium consisted of 35 presentations in eight sessions which took place in four regions (Finnmarken, Kola Peninsula, Lapland, Sápmi) and three countries (Finland, Norway, Russia). We did not even try to count the number of questions and comments in the lively discussions of the sessions by the participants, who were mostly early career scientists selected based on applications from the North Calotte area, and Central Europe, Russia and the USA. However, we are proud to say that the discussions were plenty, as well as focused and constructive.

Furthermore, more important than figures is the added value which lies in its explicit aim to create an alternative model for conventional academic conferences and other gatherings in which the time allocated for genuine discussion often remains very limited. In the sessions of the Calotte Academy the situation is much opposite, since there has always been, and will be, time enough for open discussion after each presentation. This principle, which makes the CA a sort of academic 'school of dialogue', was again implemented in the 2016 Academy. As well as research, supervision and practice were combined in interrelations between early career scientists and senior researchers, and the interplay between science, politics and activism was implemented.

I would like to announce the first Calotte Academy Fellows, and congratulate them, Prof. Matthias Finger, Director Liisa Holmberg, Prof. Steve Lamy, Prof. Heather Nicol, Dr. Larisa Riabova and Prof. Alexander Sergunin. These persons have already in previous years contributed the Calotte Academy and its early-career scientists, as well as the students of, and research done at, Faculty of Social Sciences at University of Lapland. The Calotte Academy Fellowship is a more institutionalized network of Arctic expertise and additional human resource for research, when planning research and raising funds for research, as well as supervising of PhD candidates and advanced MA students of the Faculty of Social Sciences of Lapland University (see, p. 36 in this report).

Finally, it is my great pleasure to thank all the active participants of the 2016 Calotte Academy for their valuable contributions, their presentations and active participation in discussions, as well as their session reports for the Final Report. Special thanks go to my fellow members of the Steering Group – Liisa Holmberg in Inari, Ludmila Ivanova in Russia, Marianne Neerland Soleim in Norway, Jussi Huotari, and

the co-coordinators, Laura Olsen and Gerald Zojer- for their valuable contributions in preparations and implementation of the 2016 Academy.

I would also like to thank first, the co-organizers of the Academy - Faculty of Social Sciences at the University of Lapland, Sámi Education Institute of Inari, Barents Institute at University of Tromsø, and Luzin Institute for Economic Studies and Karelian Science Center of Russian Academy of Sciences; and second, the sponsors – Barents Institute, Norwegian Barents Secretariat and International Arctic Science Committee. These institutions and their moral and financial support made it possible to continue the Calotte Academy, already since 1991, as a unique travelling symposium and doctoral school, as well as one of the oldest existing international academic activities in the European Arctic and the Barents Sea area. The Sámi Educational Centre and other hosts in Inari have played an important role here, and Inari is the center of the Calotte Academy's operational environment and mental world.

On behalf of the Calotte Academy Steering Group Lassi Heininen















Program and reports from the sessions

Rovaniemi, Monday, May 30:

- Opening words by Professor Lassi Heininen University of Lapland
- Introduction of participants
- Introduction of the program and procedure of, and division of labour in, the 2016 Calotte Academy, and an announcement of Calotte Academy related activities

Session 1: "About Resilience and Sustainable Development – theoretical discussion"

- PhD candidate Danko Aleksic, The Regional Environmental Centre for Central and Eastern Europe (REC), Hungary: "Sustainable Development and Resilience in the Arctic: synergy or clash of the concepts?"
- PhD Markus Kröger, University of Helsinki, Finland: "The Power of Words: What Weight do Key Concepts such as Resilience' carry?"
- Prof. Matthias Finger, Swiss Technical University Lausanne, Switzerland & Andrea Finger, "From sustainability to resilience: what difference in light of climate and other global changes?"
- Esko Lotvonen, Mayor, City of Rovaniemi, Finland: "Development Strategies of the City of Rovaniemi"

Report from session 1

(Rapporteurs: Rapporteur: PhD candidate Gerald Zojer, Arctic Centre, University of Lapland, Finland & PhD candidate Teemu Oivo, UEF, Finland)

The first session was dedicated to theoretically approach the concepts of sustainable development and resilience, and to discuss how these concepts can be used and have been used. According to one presenter, the reason why we need to have this discussion is that the impact of human development has reached a scope that jeopardizes the whole planet's system. Moreover, one fifth of the human population is suffering from hunger. Danko Aleksic suggested, there are three ways on how humanity can proceed: Business as usual, a clean development, or a sustainable development. The latter approach, on which the first presentation focused, implies solidarity between nations and generations. Thus, sustainable development is not just a philosophical category, but also a political. Resilience on the other hand basically means a measure of persistence of systems. Resilience is best understood through the idea of encouraging particular forms of self organization, and should be approached socio-ecologically. Markus Kröger showed in his presentation that the usage of the resilience concept has dramatically increased since 2008, and that it has become a new buzz word. Both concepts, sustainable development and resilience basically imply a holistic system thinking; however, the way how these discourses have been used in policy making has been influenced by neoliberal thoughts, and more often center on states' interests than on the interests of the communities in the North. Thus, when considering the Arctic, it has been suggested that maybe these concepts cannot offer anymore the necessary momentum for a sustainable change for the region. On the other hand, when new words or concepts get introduced, there is the danger that these concepts get hijacked again. Consequently it is important to contribute to the meaning and notion of existing concepts, and to claim their original meaning and intention. During the discussion there were several voices advocating that sustainable development is generally a good concept, but it should again be defined and used in order to describe a development that respect nature and that allows prosperity also for future generation.

Because the impacts of the anthropocene are so visible in the Arctic, some argued that the region could serve as a laboratory to test the concept of sustainable development. However, it should also be considered that the root source of many problems in the Arctic do not originate in the region, also due to the history of used technologies of the local inhabitants. However, when discussing different concepts such as sustainable development or resilience it is important to understand what weights they carry. The words that are used to describe these concepts are powerful by themselves.

In his presentation "From sustainability to resilience: what difference in light of climate and other global changes?", professor **Matthias Finger** introduced the ways socio-ecosystems can respond to the changing environmental conditions. With this basis he examined the conceptualization and usage of the natural science-based terms sustainability and resilience in the sphere of social sciences, where the latter is more recommendable to apply for the Arctic studies. The socioeconomic and natural limits and thresholds bring the development angle into the picture, which is why there is a need to introduce mitigation to the regional study debate. The after presentation discussion further deliberated the ways how to improve the mitigation aspect, emphasizing that nation states won't be as good for the implementation of mitigation as the regional governments or NGOs.

Moreover, Finger brought comparative perspectives into the features of regional factors, institutions and actors in the Arctic and Alps, highlighting the equivalent amount of regional state actors and the more organized Alpine NGOs compared to the Arctic. Hence, the Arctic region actors could learn much from the experience of more established Alps. This reflected also into the general discussion, concluding the importance role of civil society to give constructive pressure to all of the actors in the Arctic. The discussion also brought up the global importance and effects of actions in the Arctic when it regards to the natural resources utilizing industries.

The mayor of Rovaniemi **Esko Lotvonen** introduced the Development Strategies of the City of Rovaniemi. In his presentation, Lotvonen emphasized how the snow is a beloved asset in Rovaniemi and with using stored snow, the winter activity season has been expanded over the usual snow season. The city of Rovaniemi has registered two trademarks, the Official Home Town of Santa Claus and the Arctic Design Capital, both of which emphasize the international profile of Rovaniemi. As the Arctic Design Capital, Rovaniemi has special features dating back from re-building of the town after the war, with strong contribution by famous architect Alvar Aalto. These days the regional industries and university research among others contribute to the design tradition. The recent city development includes new buildings, such as the recently internationally rewarded football arena. The discussion after presentation dealt the Rovaniemi-China cooperation, adjusting to the climate change and means and goals of keeping the whole country populated. It also appeared that the Chinese state delegates have recently visited Rovaniemi to learn from local traditions of how to organize winter games events for their coming 2022 Winter Olympics.

Session 2: "Resilience and sustainable development by regions and sub-national governments"

- Katri Kulmuni, MP, Finland: "A small introduction to Tornio and Tornio River Valley A border that never existed"
- PhD candidate Yulia Zaika, Faculty of Geography Lomonosov Moscow State University, Russia "Adaptive Realities of Single-Industry Communities of Murmansk Region in the Changing Arctic"
- Associate professor Gleb Yarovoy, Petrozavodsk State University, Russia: "Sustainable development of Russian Arctic regions in the context of regional policy"
- PhD candidate Miguel Roncero, University of Vienna, Austria: "Sustainable Development, Resilience or Resource Fairness? A Pan-Arctic Approach for Sustainability"

Report from session 2

(Rapporteurs PhD candidate Danko Aleksic REC, Hungary & PhD candidate Anssi Vuori, University of Lapland, Finland)

Katri Kulmuni is one of 7 members of the Finnish parliament coming for the region of Lapland. She emphasised that the special nature of her home city Tornio has not recognized and/or utilized enough. Tornio is an old market and industry town, having no university. It is located on the border with Sweden – the political border which has never been fully accepted as such, but which separates families and creates many everyday-life problems (taxation, education, etc). Although the meaning of borders in Europe has been changed through time, Katri mentioned many bureaucratic obstacles for increasing the cooperation on this very part of Finland's border, which still exist. She triggered debate by asking how sustainable so called "Keep the whole Finland Populated" policy is and by sharing opinion that "Finland is an island from the EU perspective". Questions and interventions from the audience were about current migrant crisis and increasing of anti-migrant movement. Furthermore, Katri was asked to give examples of obstacles that ordinary citizens regularly face with due to the border. As a conclusion, she stressed that Tornio is very good and illustrative case study as it includes historical background, state governance, mining issues, industry, borders and refuges.

Yulia Zaika highlighted the fact that although the west part of Russian Arctic may be considered as decently populated and urbanized area, the tendency of population decrease is visible. In the Murmansk Region, 18,7% of population lives in the single industry communities, while there are 319 of such a communities identified in Russia. In the second part of her presentation, Yulia initiated discussion on current challenges in single-industry communities in Russian Arctic. Among the challenges discussed there were: social budget not oriented towards development, triple contradictions (regional interest vs. financial interest vs. interest of local population), depletion of natural resources in the future and strategic uncertainty of the area. Interventions from the audience were addressing lack of innovations in the Russian Arctic industries as well as problems of establishing new national parks and other protected areas in the region (economy vs. environment). Yulia stressed that the region is heavily militarized, which is one of its crucial characteristics.

First presentation of the second part of the second session was by Associate Professor Gleb Yarovoy. The presentation was concerned with the Russian state regional policy on the Arctic Region and its relation to sustainable development. His presentation is interested in the strategic importance of Arctic in Russian economy. In his presentation, Russian artic zone is shown to be defined in partly based on oblast, partly on vague regional borders and in some case only parts of a larger region belonging to it. Scales run from Regional thorough municipal all the way to Local. Arctic is important to Russia in economic terms. It covers 12 percent of the GDP and 22 percent of export revenues, however containing only 1 percent of population. Despite the importance of the region, there are for example very vague statistics available from the region. This makes research at times difficult. What becomes apparent form Associate Professor Yarovoy's presentation, is that the area is heavily directed towards resource extraction. The social and economic statistics of the area show sharp decline in all other areas than Jamal-Nenetsk and so-called "mono-towns", one industry communities, are prevalent in the arctic. The Russian state has created a six committee body to develop the area, however these committees have not met since their inception except for the committee on energy. The development of the Russian arctic development is mainly concerned with economic development and the strategies do not contain anything concrete on resilience, adaptation nor mitigation.

The discussion after the presentation was mainly commentary in nature. Some clarifications were requested. The discussion dealt mostly on the causes of the absence of clear strategy for Russian arctic. The general consensus seemed to be that the large area of the region, combined with the low population and the general interest in the area only in terms of resource extraction were mostly the cause. Also, Yarovoy's view that the Russian arctic is such a huge challenge that no one really knows where to

start, gained general agreement. All in all, the presentation and the follow up discussion served as an excellent introduction to the approach of the Russian state towards the Arctic as region.

Second presentation was by PhD Candidate **Miguel Roncero**. His presentation dealt with alternatives views that could be taken to the framing of sustainable development in the Arctic. He began his presentation by showing the audience maps, which are widely used when dealing with Arctic and which heavily influence our thinking on Arctic. He noted that the arctic is changing and with these changes new interests and possibilities open up. The presentation went on to lay out the the specific features of Arctic Resilience with historical adaptation and limited resources being the main themes. Of sustainable development, it was noted that in the Arctic Sustainable development is still linked strongly to resource driven development, which in actuality is not currently sustainable. In rhetorical terms however, sustainable development and resilience are at the forefront of the Arctic discussion and the aim of this presentation, Mr. Roncero introduced us to the concept of "Resource Fairness" which would, in his argument, be a more applicable option for the changing context of the Arctic. It would open up the discussion on the development of the region more equally, and give reason to consider how legitimate certain actors are and how their interest should be fulfilled in the Arctic context. Through this approach also the presenter also believes that a more inclusive and varied form of development could be created.

The discussion after the presentation was varied. There were several comments concerning how necessary a conceptual change would be and also whether the proposed "resource fairness" fitted to the changes. The general consensus was that indeed that the current development discourse of the Arctic was extremely resource driven but some were sceptical how this conceptual change would benefit the process. An interesting theme that was additionally explored was how to determine legitimate actor with legitimate interest. In the presentation it was argued that the notion of legitimacy in this context would be rather wide even covering consumer interest. However, counter arguments were heard, concerned with the possibility that such a wide notion of legitimacy wasn't very far off from the current position and would do little to change the resource driven development agenda. This presentation offered an excellent opening for conceptual discussion concerning the arctic that continued throughout the Academy journey.

Inari, Tuesday, May 31

<u>Session 3 "About Resilience and Sustainable Development – theoretical discussion II"</u> (Moderator: Prof. Lassi Heininen, University of Lapland, Finland)

- Welcoming words by Rector Liisa Holmberg, The Sámi Education Institute, Finland and by Jyrki Hyttinen, the Mayor of municipality of Inari, Finland
- PhD candidate Florian Vidal, Paris Descartes University, France: "Resilience: from the Roman Empire to the Arctic"
- PhD candidate Ayonghe Akonwi Nebasifu, University of Lapland, Finland: "Rethinking the Coexistence of Industrial Mining and Protected Areas: Socio-economic Considerations for Sustainability. Case study: Hannukainen Mine in Northern Finland

Presentation by mayor Jyrki Hyttinen in Inari. Picture: Gerald Zojer



Report from session 3

(Rapporteur PhD Daria Gritsenko, Aleksanteri Institute, University of Helsinki)

The Session was opened by Liisa Holmberg from the Sámi Education Institute and Jyrki Hyttinen, the Mayor of municipality Inari. Ms. Holmberg underlined that Sami language is a core of Sami identity and stressed that education in Sami language is essential to strengthen autonomy, representation, and preservation of cultural heritage. She expressed frustration about the lengthy process with adopting the ILO convention 169 in Finland, pointing out that at the international level Sami are recognized and represented in ways that supersedes the representation they have at national level. Mr. Hyttinen presented the basic facts and figures on the Inari municipality, emphasizing the increasing role of tourism and services as a source of income. In his opinion, one of the biggest problems is that Inari is competing with Levi, Ylläs, Rovaniemi – according to Hyttinen, it would be better to market Lapland as a whole, not compete within the region (example – Canary Islands). Among the tensions within the municipality he mentioned the "Sami question" ("difficult, impossible to understand") and a large amount of stakeholders when it comes to regional development strategies.

Florian Vidal presented a historical perspective on the concept of resilience. His richly illustrated overview from the Roman Empire to the modern Arctic suggested that complex societies breakdown when increasing complexity results in negative marginal returns. He invoked two literatures, transition management (which pinpoints the need to resolve question "Who governs?" and "Whose system counts?") and polycentric governance (which highlights local/regional solutions to sustainability challenges over global), to craft his argument about how the Arctic could serve as a case (model, laboratory) of resilience building, the discussion has raised ethical questions (can people from 'outside' come to the Arctic and exploit it as a model, whereas Arctic is home to indigenous peoples) and conversations about the pathways for the Arctic communities in global climate change adaptation.

Ayonghe Nebasifu's talk set to uncover whether mining is seen as a problem or as an opportunity in the Arctic communities. Building upon the interrelationship between sustainable development and globalization, Ayonghe showed how mining has expanded in Finland over the past 10 years and how this intensifying industrialization of the High North led to emergence of controversies, such as the mine in Hannukainen, located just at the border with a nature protected area, which he used as a case. The mine (currently not functioning) is expected to bring socio-economic benefits, yet, may

be at odds with the goals of natural protection. The EIA reports from 2014 assessed the environmental impacts of mining and confirmed certain potential environmental disturbances (i.a., landscape, soil, aquatic ecosystems, vegetation, climate noise), but did not clearly present economic benefits. Thus, better research and information are needed to make informed decisions, which is the practical goal of Ayonghe's research.



BBQ dinner in Inari. Picture: Gerald Zojer

Session 4: "Arctic tourism"

- PhD candidate Laura Olsén, Arctic Centre, University of Lapland, Finland: "Indigenous peoples" possibilities to influence on decision-making: case study of Finland"
- Lecturer Minna-Carita Haantie, The Sámi Education Institute, Finland: "Creating a working education model for community based travel among local indigenous communities in Finland and further in other indigenous communities"
- PhD candidate Elena Guk, Saint Petersburg State University, Russia: "Outdoor Recreation in Norilsk: A Compromise between Mining, Well-being and Remoteness"
- PhD candidate Teemu Oivo, Karelian Institute, University of Eastern Finland, Finland: "Flexible Images of Russianness' in Eastern Finland"

Report from session 4

(Rapporteur PhD candidate Ayonghe Akonwi Nebasifu, University of Lapland)

Session 4 was held on Tuesday May 31st at the Inari Sami Cultural Center in Finnish Lapland with multidisciplinary discussions about two Barents regions; Finnish Lapland and Northern Russia. Focus was on Finnish Lapland's Sámi indigenous people. A PhD project plan by **Laura Olsen** of the Arctic centre University of Lapland, emphasized strengthening voices of Sámi people via decision making as most of their rights to access resources irrespective of ILO169, have been undermined by state and the infiltrating foreign-cultures posing threats to Sámi cultural sustenance and wellbeing.

A proposal was made by **Minna-Carita Haantie**, Lecturer at the Sámi Education Institute in Inari to create educational model for sustainable tourism within Sámi communities of the North towards employment meanwhile preserving Sámi culture. Commercial-tourism on indigenous land inhabiting reindeer cobs, and difficulties obtaining start-up papers for entrepreneurs are challenges. The resilient vision is for Inari municipality to re-modify and enhance its control mechanisms within the tourism sector and equally ease processes for obtaining business start-up papers so to boost local entrepreneurship.

Regarding Northern Russia, two issues included cultural-preservation in remote Norilsk region via recreational activities; and how images of Russianness construct from a Finnish perspective. **Elena Guk** from Saint Petersburg State Institute for Tourism Industry argued the creation of recreational camps by Nickel Mining Company, combined with resilient policies limiting foreign nationals from entry to Norilsk contributed to preserving Norilsk culture. However, mining being Norilsk's dominant activity raises doubts about local policies on pollution.

Teemu Oivo, PhD candidate Karelian Institute, University of Eastern Finland introduced his research plan arguing that since the fall of USSR, "self and other" within context of images about Russia is constructed to influence popular opinions, individual interests, attitudes and behaviors of inhabitants at the Russian-Finnish border. For example; mediums of public discourse in regional newspapers and internet forums illustrate features like "Hockey, Putin, and Complexity" being a negative narrative. Conclusive remark was to adopt a discourse and comparative analysis of views between Finns and Russians at the border.



Visit to Skoltefossen waterfall in Neiden. Picture: Gerald Zojer

Wednesday, June 1

Session 5 "About Resilience and Sustainable Development - (best) practices"

- Welcoming words by Marianne Soleim Neerland, Director, Barents Institute, Rune Rafaelson, Mayor of Syd-Varanger Municipality and Tomas Hallberg, Head of Secretariat, International Barents Secretariat
- PhD Candidate Victoria Herrman, Scott Polar Research Institute, Cambridge University: "Frozen Assets in a Globalized Arctic Creating a Path for Resilient innovations in the High North"
- Prof. Alexander Sergunin, St. Petersburg State University, Russia: "Environmental Policies of Russia's Arctic Industrial Centres: Survival or Resilience Strategies?"
- PhD candidate Hilma Salonen, Aleksanteri Institute, University of Helsinki, Finland: "How do Russian federal and regional strategies utilise norms to legitimise investments on new technologies of renewable energy"

Report from session 5

(Rapporteur: PhD Elena Guk, St. Peterburg State University, Russia)

The session took place in Scandic Hotel in Kirkenes and was the first one in Norway during the Academy 2016. Director of Barents Institute (research branch of Arctic University in Tromsø), **Marianne Soleim Neerland**, and **Tomas Hallberg**, Head of International Barents Secretariat, welcomed Academy participants in Kirkenes and gave a short introduction to the present of city's issues and economy, university and Barents Secretariat challenges. Participants' questions to Kirkenes representatives were related to interactions between the city, industries, Barents Secretariat and the Institute, and their representatives confirmed that consensus is the biggest issue. Continuing former discussions, there were a lot of questions about diversification of city economy, faced closure of mine and fall of tourist flow from Russian but having huge logistic potential due to future plans of seaport multimodal expansion and growing number of Hurtigruten tourists. Marianne and Tomas agreed that sanctions became an issue for Kirkenes but international cooperation in science and dialog supported by Barents Secretariat remain the major ways of interaction between Europe and Russia in the Barents region.

PhD Candidate Victoria Herrmann from Scott Polar Research Institute (Cambridge University, USA) presented her topic "Frozen Assets in a Globalized Arctic Creating a Path for Resilient innovations in the High North", devoted to innovative ways of Arctic development in terms of renewable energy. What is rhetorics and what is reality in the case of renewable energy in Arctic? After GLACIER (The Conference on Global Leadership in the Arctic: Cooperation, Innovation, Engagement and Resilience, Alaska, 2015) the following ways of Alaska energy development were defined: launching clean energy solutions for remote communities and investing in biomimetic clean energy, and this experience seems to be replicable for another Arctic regions. What comes for energy stewardship, it matters to export not petroleum but expertise and to raise technical knowledge. The open questions are how industry comes into this conversation, how it relates to Arctic in whole and what the political concerns are. The major discussion regarding the latter started after the presentation: what is Arctic for the USA, and what will change after oncoming President elections. As for chairmanship of US in Arctic Council, what are consequences when it finishes and how does it relate to pan-Arctic scope? Victoria claims that energy development in major depends on government investments, but there are also commercial players, and undoubtedly Arctic needs a new multisector economy beyond oil.

The presentation of PhD candidate **Hilma Salonen**, Aleksanteri Institute, University of Helsinki, Finland, named "How do Russian federal and regional strategies utilize norms to legitimize investments on new technologies of renewable energy" ("Tools of Legitimization in Russian Bioindustry (Justification Analysis of Federal Strategies)") followed Victoria Herrmann's topic and ideas. Why Russian vast forests are not utilized for energy more? Dominance of oil&gas explains much, but not everything, and weak policy-making resulted in that plans made but not executed, so why not just to give up? The overall current situation includes small export and domestic markets with high costs of utilizing wood and low energy efficiency. But on the other hand, there are reasons to support use of biomass: energy-poor regions can be more self-sufficient due to improvement of energy security and creating more jobs. By analyzing public legitimation, it was found that new projects are hard to implement but they still remain important for authorities, and energy especially in situation of remoteness and dependence of Arctic regions. The discussion of topic took more commentary way, touching energy-efficiency programs of Russian regions, building systems and taking into consideration private actors' interests.

Professor **Alexander Sergunin** from St. Petersburg State University, Russia, presented topic "Environmental Policies of Russia's Arctic Industrial Centres: Survival or Resilience Strategies?" devoted to Russian Government's priorities in the Arctic Zone of Russian Federation. Prof. Sergunin argued that Russian environmental policy depends on differences of main actors (size and type of settlements and industries). Proposed priorities of policy should undergo paradigmatic shift - means be focused more on prevention than on cleaning, and shall include proper legal basis, creation and development of efficient management, development of monitoring system, public-private and

government-private partnerships, environmental education, etc. Alexander has concluded that in general current Russian environmental policy in the Arctic is a great step ahead next 10-15 years, but still has "words and deeds" problem and is far from implementation. During the discussion, the presenter added that "words and deeds" problem has its roots in "holes" of legislation and in misunderstanding between regional and federal levels, but small success stories take place (e.g. clean-up of Arctic islands). In addition, international cooperation should give its results in bringing environmental-friendly technologies and comparative case studies should bring benchmarking of "success stories".



Session 5 in Kirkenes. Picture: Gerald Zojer

Thursday, June 2

Session 6: "Freedom of Expression and Media"

- Journalist Martin Breum, Denmark: "Media Presentation of Resilience / Sustainability in the Arctic"
- Associate prof. Gleb Yarovoy, Petrozavodsk State University, Russia: "Freedom of speech and freedom of media in the Russian Arctic: mission impossible?"
- Journalist Anna Yarovaya, Scoop Russia: "Investigative journalism as the last chance for Russian journalism (also in the Arctic)?"
- Journalist Atle Staalsen, The Independent Barents Observer, Norway: "The Independent Barents Observer (IBO)"

Report from session 6

(Rapporteurs, Anna Yarovaya & Martin Breum, journalist)

In his speech on "Climate imagery vs. people imagery in the Arctic", **Martin Breum** covered different aspects of media representations of climate change and societal resilience in Greenland, and in the wider Arctic. He reminded the audience about the different popularized pictures that are about to reflect the

notion of the Arctic to the global community. Among others, the documentary "Chasing Ice", the "Frozen" animated film, special editions of Coca-Cola and LEGO products etc. One of the crucial questions of his presentation was about the effect these illustrations may have on indigenous Arctic communities, such as Greenland. Will it help Greenland attract attention to its need for economic development and societal resilience? Will it provide understanding that climate change is not created in the Arctic but – at least partly – by industries, users of cars, trucks, oil and coal thousands of kilometers further south? Or will it cement the notion of the Arctic and Greenland as a 'nature reserve' that needs protection, regulation and increased oversight and therefore more foreign intervention and control?

Gleb Yarovoy, PhD, Associate professor Petrozavodsk State University, addressed the theme: "Freedom of speech and freedom of media in the Russian Arctic: Mission impossible?". Recent surveys on media consumption in Russian show that public trust in the mainstream media outlets in general is relatively low. Polls show, for instance, that only 63 pct. of television viewers trust the truthfulness of information provided by mainstream television. Still, 88 pct. of those polled still answer that television remain their main source of news. This seems to partly explain that the political culture in Russia is 'traditional', i.e. underpinning very strong popular support for the president (some 80 pct. presently), while providing far less support for all political leaders or institutions below the president (i.e. the prime minister, the Duma, regional legislatures etc.) Mainstream national mass media are almost exclusively controlled by business interests or the political authorities and tend to produce only news and information in support of the government and its policies. Images in popular culture depict the media as producers of 'shit', and there are only few alternatives available in the way of independent national, regional or local media outlets. At national level the tv broadcaster "The Rain - Optimistic Channel", that is available to subscribers only, remains the only national broadcaster that provides independent coverage of political and social issues. Some 66.458 Russians currently subscribe. Regional and local tv is all editorially biased in favor of the current government. Euronews in Russian Is available via satellite from 6 to 10 am. A few other sources of independent news is available to the 53 pct. of all Russians, who access the internet regularly, but most political discussion take place on Facebook; at least in western Russia. The main obstacles to the few independent media outlets are the financial constraints and administrative hassles aimed to curtail critical journalism. Meanwhile, increased dissemination of news about Arctic science projects to the media is taking place through the newly established internet site www.arctica.ru

Anna Yarovoy, journalist and coordinator of the northwestern chapter of SCOOP Russia, a project in support of investigative journalism, addressed the theme: "Investigative journalism: Investigative journalism as the last chance of survival for Russian journalism (also in the Arctic?). In the Karelian part of Russia only two media outlets 7x7 and blogger51, both based on the internet, presently offer journalism that could be deemed independent and providing independent news and information. Subsequently, as a journalist wanting to produce independent journalism one may choose between three alternatives for continuing in the profession: 1) adaptation, which entails conforming to the editorial and ethical standards of the mainstream media controlled or owned by the Russian authorities or business corporation. These media will expect journalists to produce only news and information favorable to the government's policies. 2) mitigation: In this case the journalist chooses to sell his or her services on a piece by piece basis to media not owned or controlled by business or the authorities. This path, however, offer severe obstacles, since the free lancing journalist's customers will often be less established media which may close or shift operational mode thereby shutting the journalist's flow of income. Finally, you can leave the country and practice abroad (a group of Russian journalists, for instance, now operate out of Lithuania, where they have established the media-house 'Medusa'). In support of those who still try to produce investigative journalism in the Northwestern region of Russia SCOOP Russia invites working journalists from all media to suggest investigative journalism projects. Those selected are invited for a week of training in investigative journalism in Kalmar in Sweden, and will subsequently be supported by professional coaching, legal advice, and if necessary operational funds to cover relevant expenses. Scoop Russia has supported so far more than 30 such projects. Two case stories: In one project, the journalist uncovered illegal production of sausages with almost no meat. In another the journalists involved

revealed how several water treatments plants in Kaliningrad did not meet the standards required by authorities (and foreign donors). The majority of Scoop-supported projects in Northwestern Russia have been carried out in Karelia, where the project coordinator lives, but projects were also carried out in Murmansk and Archangelsk. Recently, 20 local journalists attended a Scoop seminar in Archangelsk, indicating solid continued interest in the project.

The last presentation of the session was made by **Atle Staalesen**, a Norwegian journalist from Kirkeness, representing The Independent Barents Observer (IBO). Staalesen's speech was focused on the problems of free journalism in the Barents region based on the BarentsObserver story. The IBO was established in October 2015 after a conflict with the Barents Secretariat owners — Norwegian counties of Finnmark, Troms and Nordland, when the counties' public servants have argued that independent journalism could harm the good cross-border relations in the region. Staalesen described the current problems and achievements of the new media, as well as the main topics for cross-border journalism: from the societal problems and migration to energy projects and military security of the region



Visit to Litsa war memorial. Picture: Gerald Zojer

Murmansk, Friday, June 3

Session 7 "Urbanization and regional development of the Arctic"

- Senior Scientist, PhD Sergei Berezikov, Luzin Institute for Economic Studies, KSC, RAS, Russia: *Key problems and major trends of technological development of the North and the Arctic of Russia*
- Senior Scientist, PhD Ludmila Ivanova: Luzin Institute for Economic Studies, KSC, RAS, Russia "Management of Mineral Resource Use in Russian Regions"
- PhD candidate Gerald Zojer, Arctic Centre, University of Lapland, Finland: "The Arctic Council between global interests and regional development. A continuation of the prevailing economic order"
- Senior researcher, PhD Anastasia Gasnikova, Luzin Institute for Economic Studies, KSC, RAS: "Ways to Improve Energy Security of the Arctic Regions of Russia"
- PhD Daria Gritsenko, Aleksanteri Institute, University of Helsinki, Finland: "TPE of Energy and Natural Resources: Arctic Energy"

• PhD candidate Anssi Vuori, University of Lapland, Finland: "The Emerging Political Space of the Internet: International Relations in the Virtual Reality"

Report from session 7:

(Rapporteurs: Yulia Zaika, Researcher at Khibiny educational and scientific station of the Faculty of Geography Lomonosov Moscow State University, PhD candidate at the Faculty of Geography MSU & PhD candidate Miguel Ronceiro, University of Vienna, Austria)

The first session of early rainy morning of June 3 started at the Murmansk Arctic State University began with the presentations and discussions around regional development in the Arctic. **Sergei Berezikov's** presentation focused on technological development of regional enterprises, needs for restructuring and modernization. Sergei argued that there is a need for structural shift. It is impossible to implement the effective modernization of enterprises without restructuring and development of future strategies of economy. But the technological development of the economy is affected by contradictions between politics and business. Technologically advanced enterprises get more access to the domestic market, and extractive companies are consumers of innovations. All strategies and state documents mainly focus on extraction of existing enterprises. During the discussion after Sergei's presentation the need for intellectual resources was pointed out. It is important to teach people to think in innovative way. Current technological challenges might be seen as the way to innovative thinking.

In her presentation **Ludmila Ivanova** gave an example on how the companies and authorities use common minerals production at the regional level. The presentation gave comprehensive information about the state legislation on "Subsoil plots", its implementation and federal-regional regulations. The common minerals (CM) might be seen as byproduct at the federal level however their production is considered as the extractive industry and plays a significant role for the economy at the regional level. The discussion after the presentation slightly touched the influence of sanctions for the production of CM. It was pointed out that CM is the narrow field which is mostly used on the regional level, thus, was not affected by the sanctions. The state environmental regulations, which are pretty strict, also play the important role in extraction of CM.

Following previous presentations about regional aspects of development, **Gerald Zojer's** presentation discussed the shifts of global and regional development in the Arctic Council's agenda. Originally the idea of sustainable development in the Arctic Council was centered over the economic focus. At the moment there is an obvious shift to social and cultural discourse. Degradation and pollution of the environment stays in the regions and doesn't have any economic benefits. Arctic Council focuses on development of the Arctic region for human in comparison with the national strategies. Traditional economies of the North are human-based and it is important for people to have a sound nature and environment. But Arctic and other states need resources for the energy security, and it is vital to have and extract the powerful energy resources. Nowadays big actors of oil and gas extraction are getting the renewable resources to their agenda. Gerald argued that this shift to renewable resources will change the society dramatically in terms of rethinking of what kind of technologies we use and at which scale.

The afternoon session was moderated by Larissa Riabova. Senior Scientist Anastasia Gasnikova offered an overview of the present challenges regarding and affecting energy security in Northern Russia, identified as a triad based on resource sufficiency, economic availability, ecological and technological acceptability, as reflected in the 2009 Energy Strategy of Russia up to 2030. These include remoteness, infrastructures, environmental conditions, and uneven distribution of resources. Some proposed solutions to increase energy security were revised, including the use of renewable energy sources, increasing efficiency, and the promotion of autonomous energy production. During the discussion, progress on achieving results and on using alternative energy sources were questioned, as well as the role and incorporation of new technologies in the light of climate change (for example, how

reduced permafrost may affect existing infrastructure). The understanding and use of the concept of energy security by local decision makers as well as the inclusion of local communities in the decision-making process were also questioned.

Post-doc researcher, PhD **Daria Gritsenko** covered the Arctic (energy) hype from a resource-colonialism perspective. According to the presenter, the Arctic is yet another step in the energy history of humanity, and this hype is also another one in the history of the Arctic, which in the past has been the focus for minerals, whale oil, coal or natural marine resources. The current situation, though, can be described through asymmetrical power relations embedded within resources (natural, economic, human), remoteness or periphery, and tradition (in neo-colonial terms, with a mandate to bring "civilization" in). Narratives and depictions are also important, and the Arctic El Dorado or Mangazeya is seen as an empty-but-full place. This, in turn, is including the Arctic within the world-economy system, makes is part of the global energy outlook and places it at the centre of the global carbon governance or the climate change debate. The discussion following the presentation addressed the meaning and understanding of what the hype means and how is constructed by the narratives of power. The debate centred on energy security, geopolitics and international legal regimes, delving into the complex Arctic reality. The narratives were also explored, pointing out the masculine and paternalistic/colonialist readings of development and its relation with indigenous peoples of the Arctic.

Anssi Vuori's presentation focused on how the internet is a game changer affecting information, economic and social transactions as well as communication, interconnectedness and the immediacy of it. Physical location, presence, and space have all lost their meaning. Internet is a post-modern space without a single story and no clear or agreed upon governing structures, where traditional borders and limitations are ignored. The network and the access to it is has fundamental socio-political implications. The discussion focused on the potential (mis)uses of the network, as well as the challenge to provide quality access to Arctic remote regions. The narratives on the Arctic are using internet and digitalization and placing it at the centre of the newly constructed imaginaries, and redefining the relation between the Arctic periphery and the rest of the world. Digitalization redefines social constructions and empowers people(s) in the periphery, but global contact may also cause unwanted/unexpected consequences, for example a diminished interests in culture or nationhood. The advantages of the Arctic for investment of big corporations (a big and cold area) were also discussed.



Desertification due to nickel smelter in Nikel. Picture: Gerald Zojer

Murmansk, Saturday, June 4

Session 8 "Resilience and sustainable development, and oil and gas drilling in the Arctic"

- PhD candidate Jussi Huotari, Aleksanteri Institute, University of Helsinki, Finland: "Greening the oil and gas business: the rise of the environment in corporate strategies?"
- PhD Larissa Riabova & Senior researcher Svetlana Britvina, Luzin Institute for Economic Studies, KSC, RAS, Russia: "Norwegian-Russian oil and gas cooperation in the Northwest Arctic: is there life after sanctions?"
- PhD candidate, Olga Burukina Moscow (Senkevich) State Institute for Tourism Industry, Russia: *"Tourism as a Resilient Tool for the Barents Sea Area's Sustainable Development"*
- Prof. Lassi Heininen, University of Lapland, Finland: "Preconditions for resilience and sustainable development 'Geopolitics shouldn't be misused"

Report from session 8

(Rapporteur PhD candidate Florian Vidal, Paris Descartes University, France)

At the beginning of the last session, PhD Candidate **Jussi Huotari** introduced the new global tendency within the oil and gas sector (O&G) regarding the impact of the climate policy. As he mentioned, the sustainability of global energy system faces several crisis: environmental (i.e. GHG emission) and economical (instability on the energy prices market threats the world economic growth). Through his presentation, it has been stressed the need for global O&G stakeholders to shift toward a low carbon energy system. Nonetheless, he highlighted the various stakeholders in the Arctic on this economic segment (e.g. Unified states, SOEs, TNCs, Sovereign Wealth Funds and so on). As climate policies rose in the international political agenda, O&G industry switches its discourse toward an environmental friendly approach in the future operations. Huotari concluded by the possible role and influence of the shareholders and individuals in the implementation of environmental paradigm in the corporate social responsibility.

Then, PhD Larissa Riabova introduced her first field results concerning the Norwegian-Russian oil and gas relationships in the Barents Sea region. In the light of the PETRONORTH – PETROSAM-2 project currently underway, this empirical study on the cross-border O&G cooperation between Norway and Russia emphasizes the full scope of stakeholders involved in the project. Along with the O&G companies, the preliminary results show major stakeholders such as O&G services business, oil spill responses, sphere of education and research and lastly the association of suppliers for the O&G industry. Riabova underlined the specificity of each stakeholder as well as their position according to the current political situation. Indeed, the ongoing sanctions (and counter-sanctions) regime between Norway and Russia has significantly impacted the O&G sector. If the O&G cooperation has been challenged, O&G companies appear to heavily suffer from this political situation. Finally, she stresses that other stakeholders maintain tight relations as it was previously.

Pr. Lassi Heininen synthetized the evolution and current geopolitics perception of the Arctic. He stressed that geopolitics in the region has been all the time and corrected the idea of a 'comeback' of geopolitics. Understood as a physical space which includes resources, the idea of Arctic security has shifted in the last decades. From the Cold War's security nexus to the Post-Cold War's security nexus, the Arctic region has faced increasing environmental security issues. As the military structures are still deployed, he underlined the security architecture is fragmented and so, the absence of a 'security community'. Then Heininen indicated to the audience that the Arctic is a recipient for all pollutants. As a result, he stressed that long-range pollution (e.g. DDT, radioactivity, Arctic haze) was

the trigger for environmental 'awakening' in the Arctic. From that point, environment issues were the core for setting of a new political agenda in the area. By doing so, these factors have reshaped security challenges in the Arctic. The current climate change impacts significantly the region arising key questions: Is « Industrial civilization » able to slow down fossil fuel-based development? Is paradigm shift in the process? If there is no achieved paradigm shift, he demonstrated the 'Arctic Paradox' as full of challenges in which new multidimensional dynamics has made Arctic geopolitics global. Behind the scene, the 'Anthropocene' is at play. To conclude, Heininen stated that the 'Arctic Paradox' is not inevitable. Indeed, it has to go beyond 'political inability' and implement the states' original commitments.

For concluding the Calotte Academy 2016, PhD Candidate **Olga Burukina** introduced her study on tourism in the Barents Sea region. She intended to make the case for a sustainable development of this economic segment and its possible outcomes. She reminded us that tourism involves several new issues for the region in term of opportunities, challenges, responsibilities and requirements. Furthermore, the tourism industry is one of the largest industries as it encompasses a wide variety of subsectors (e.g. entertainment, foodservices, transportation and so on). If tourism is a hub for job opportunities, it includes negative effects. Indeed, tourism is a landmark for mass tourism which potentially impacts local environment through human footprints. Nonetheless, the sector is flourishing and expanding through the Barents region which involves the construction of dedicated infrastructures. Burukina underlined the various attractions in the area (e.g. King Crab in Kirkenes). Besides, new tourism opportunities appear such as cinematography (e.g. increasing tourists in Teriberka – Russian town where Leviathan was shot). In order to enhance tourism as a resilient tool, she stressed three pillars: uniqueness, security, and cost-efficiency. Finally, Burukina rose several proposals such as involvement of the local authorities, collaboration with universities and other creative industries.



Group photo in Murmansk Arctic State University.

Abstracts in alphabetical order

Danko Aleksic PhD candidate The Regional Environmental Centre for Central and Eastern Europe (REC), Szentendre, Hungary daleksic@rec.org

"Sustainable development and resilience in the arctic region: synergy or clash of the concepts"

The term "sustainable development" was first mentioned in the "Report of the World Commission on Environment and Development: Our Common Future" published in 1987. In that document, which is also known as The Brundtland Report, sustainable development was defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Ever since it came into the discourse, the term "sustainable development/sustainability" has become one of the widest used terms, almost a buzzword, applied in almost every field of human activities. Consequently, too intensive use may lead towards misuse – so the term is also used to camouflage for conducting activities which are not in accordance with the concept as such. If we speak about the concept of "resilience", it may be defined as "the ability of a system to absorb disturbances and retain its basic function and structure".

This paper gives an insight into concepts of "sustainable development" and "resilience" – their historical developments, characteristics and importance they have in the modern globalized world. The paper is aimed to examine connections and mutual influences between two concepts, but also to identify and analyze possible conflicts and bypassing points between them. Analysis of relation between two concepts will be done in the context of the Arctic – the region of unique geographical, strategical, ecological and social characteristics, which is exposed to various external influences triggered by globalization and is expected to suffer rapid changes in close future.

Sergei Berezikov Senior Scientist, PhD Luzin Institute for Economic Studies, Kola Science Centre of the Russian Academy of Sciences, Apatity, Russia bsa@iep.kolasc.net.ru

meet the different needs and more efficient use of available resources.

"Key problems and major trends of technological development of the North and the Arctic of Russia*"

The deployment of the globalization process of technological development of the economy, leading to increased competition among industry, has become one of the key features of the world economy at the moment. During the production process have become a role model for the best technological solutions leading the technological development, adapted to the conditions and needs of local markets. There are incentives for technological exchange and expansion of scientific and technical cooperation on the principles of strategic partnership within the framework of informal emerging transnational alliances. Technologically less developed enterprises, including through such partnerships in the international division of labor, access to advanced technological development of a number of advantages over its competitors during the development of new markets for themselves. There is speeding up the process to

It should be noted that at the present time, such a scheme of interaction in the field of technology for the industrial North and the Arctic of Russia is not available for a variety of reasons. There is an urgent need to develop scientific bases of modernization of basic sectors of the economy of the northern and arctic areas of the Russian Federation. Logically it warranted during the first stage of

development of this concept to identify the key issues and main trends of technological development of the North and the Arctic of Russia.

* The reported study was partially supported by RFBR, research project No. 15-06-06827 a.

Martin Breum Journalist, Denmark

"Media presentations of resilience / sustainability in the Arctic"

There are numerous discourses prevalent in media presentations of Arctic developments. As Steinberg, Tasch and Gerhardt described recently media and decision-makers are grounded in at least six different narratives of the Arctic, with the media shifting from one to the other according to circumstance. Climate change and the dramas involved (melting glaciers, disappearing polar ice, suffering polar bears etc.) often steal headlines in media outlets in the 'south', setting a global agenda that portrays the Arctic according to old stereotypes: uninhabited, wild, severe, cold, dangerous and inaccessible. The award-winning documentary, "Chasing Ice", portraying a lone photographer's bone-breaking journey to glaciers in Iceland, Greenland, Alaska and Montana, is one obvious case. The simplicity allows simple messaging on climate change but by leaving out most other aspects of Arctic development this stereotyping hinder more nuanced messages of societal development in Arctic communities and cloud dialogue on issues of local resilience and sustainability between governments and their agencies, the 'southern' public and Arctic communities.

I would like to share as my contribution to the Academy some observations from a journalists' perspective on the increasing discrepancies between 'southern' media coverage of climate change in the Arctic and the development of strategies for societal resilience – with a special view to Greenland and its troubled relations with the Danish government and the general, Danish public.

Olga Burukina, LL.M PhD candidate, Moscow (Senkevich) State Institute for Tourism Industry, The Financial University under the Government of the Russian Federation Russia burukinaolga@yahoo.com

Tourism as a Resilient Tool for the Barents Sea Area's Sustainable Development

Today tourism is the most remarkable, diverse and fast-growing industry both globally and nationally. Tourism as a great destination-developer, employer and economic growth promoter has a large scope of virtues; yet, it brings along some deeply rooting vices, which the presenter is going to highlight and discuss.

Nevertheless, tourism is seen as a remedy and magic tool for the development of the Barents Sea Area by both tour operator companies and local governments.

Statistics published by Patchwork Barents clearly indicate what regional Finnish, Russian and Norwegian tour operators are after: to expand the number of nights each visitor spends in their region. In 2014, tour operators in Finnish Lapland registered approximately three times as many visitor nights as the Murmansk Region in Russia or Finnmark in Norway together [1].

Tourism is seen as a resilient tool for regional development as it is highly diversified (rural and urban tourism, extreme and adventure tourism, ecotourism and wildlife tourism, historical, cultural, culinary tourism, and geotourism, to name a few [2]) and customized to the needs of destinations and demands of stakeholders nationally and globally.

The author considers the recent achievements and potential of Lapland, Kirkenes Region and Murmansk Region as major tourist attractions and identifies opportunities for their sustainable development.

Besides all kinds of safaris, museums, ski resorts, and theme parks (like Santa Park in Rovaniemi), cinematography seems to be among most prominent opportunities, with the film and television productions having brought about EUR 1 million in direct expenditure to Lapland in 2012 [3]. And Murmansk coastal village Teriberka made it all the way to Hollywood with the controversial Oscarnominated movie "Leviathan," which helped it to become a tourist destination [1].

The author makes generalizations, comes to interesting conclusions and offers a number of projects aimed at the Barents Sea Area's sustainable development.

Professor Matthias Finger Swiss Technical University Lausanne, Switzerland and Andréa Finger

"From sustainability to resilience: what difference in light of climate and other global changes?"

Considering that climate change concerns have been addressed with very limited capacity and effectiveness through global governance institutional processes, and that social and environmental impacts of climate change become rapidly more obvious, sustainability becomes more and more a question of how to adapt, restore, and transform altered conditions of the socio-ecosystems. In other words, the question increasingly becomes how a socio-ecosystem can become more resilient. This entails different conceptions of science and technology, more local and applied approaches, whereas taking into account global factors affecting and being affected by more local socio-ecosystemic factors.

In this paper, we will discuss the fact that social sciences have adopted the resilience term, as they have adopted earlier the sustainability term from natural sciences perspectives (hence forestry and ecology). The integration of both terms into the social sciences has served strategies for developing environmental and some social policies addressing global problems, such as climate change. This integration has raised political debates and eventually the mainstreaming of these terms (into prevalent structures of power).

In this paper, we will ask the following questions:

1) What is the added value of using the term "resilience", rather than "sustainability" (discussing definitions)?

2) Who are the actors using rather one or the other terms? Why do they use these respective terms (strategies of collective actions)?

3) Why should we adopt the term "resilience" for comprehending the Arctic regions' dilemmas and challenges?

Anastasia Gasnikova Senior researcher, PhD Luzin Institute for Economic Studies, Kola Science Centre, Russian Academy of Sciences agasnikova@iep.kolasc.net.ru

"Ways to Improve Energy Security of the Arctic Regions of Russia"

The Institute of Energy Strategy, a leading scientific center for development and monitoring of the Energy Strategy of Russia, considers energy security as the triad: "sufficiency of resources – economic affordability – technological and ecological acceptability". The three components of the triad express the essence of energy security most completely. Improving energy security is possible by influencing the components of the triad, taking into account the particular characteristics of the Arctic regions.

The sufficiency of resources cannot be influenced directly. However, it is possible to increase the degree of geologic certainty of fossil fuel resources (geological survey) as well as to estimate alternative renewable energy resources. The Arctic particular characteristics are that many large gas and oil fields are located here, and this territory is rich of alternative renewable energy resources.

Ways to influence the economic affordability are the introduction of new, more effective energy technologies, the development of local renewable energy resources, energy saving, and energy efficiency improvement. Economic affordability of energy is especially important in the Arctic where energy supply is expensive due to cold climate, power-consuming economy, the necessity to deliver fuel to remote areas.

The technological and ecological acceptability can be influenced by developing new, more effective energy technologies. The technologies used in the Arctic have to meet some requirement. Firstly, they should meet the extreme climatic conditions. Secondly, they should not cause natural environment damage.

Daria Gritsenko Post-doc researcher, PhD Aleksanteri Institute, University of Helsinki, Finland

"IPE of Energy and Natural Resources: Arctic Energy"

The resource wealth of the Arctic is immense. According to the U.S. Geological Survey, an estimated 13% of the world's undiscovered oil and 30% of gas resources are located beyond the Arctic Circle. Mining companies operating in the Arctic are extracting a wide variety of minerals, including coal, copper, diamonds and gemstones, gold, iron ore, lead, nickel, palladium, uranium and zinc. In parallel with the receding icecaps that hold a promise of an easier access to the Arctic resources, the global economic landscape has been extending towards the High North. Many countries, including the non-Arctic states, are now considering the Arctic as a viable future source of enormous energy supplies and valuable mineral resources. The contemporary "Arctic hype" unfolding against the background of the warming climate highlights the intertwined politics and economics of the Arctic energy resources. This Chapter will examine the incorporation of the Arctic into the international political economy by focusing on three aspects within this "Arctic hype." The first aspect, continuity, can be captured through considering the history of Arctic exploration as a part of the human energy history. Second, the perception of the Arctic as a global resource base accentuates resource colonialism as a set of economic strategies underlying postindustrial capitalism. Finally, the third aspect opens up a controversy between the environmental narratives and material geography of distant extractive frontiers that characterizes the post-Paris sustainability discourse.

Elena Guk PhD candidate, Saint Petersburg State University, Russia elena.guk@gmail.com

"Outdoor Recreation in Norilsk: A Compromise between Mining, Well-Being and Remoteness"

In early 20th century, emerging Arctic industrial areas in Soviet Union caused creation of brand new cities, and Norilsk became one of them. Now it's the second most populated city above the Polar Circle, estimated as one of the most polluted settlements in the world. The city is de facto managed by Norilsk Nickel mining company, one of the most powerful players on non-ferrous metal global market.

The research has revealed that remoteness of the newly built area in combination with hazardous climate and industry triggered creation and development of local recreation practice. Since

1940s, dozens of camps and outdoor recreational centers had been built in the neighborhoods of Norilsk and on the lakes of Western Putorana Plateau, the UNESCO natural world heritage object located 100 km east of Norilsk industrial area. The fieldwork, done in 2013, has resulted in identifying different forms of outdoor recreational activities and facilities in the region, with same- time capacity of more than 4% of Norilsk region population; built recreational environment is still mainly operated by Norilsk Nickel. It was concluded that in changed economic and political conditions local outdoor recreation has showed its resilience: it's still on demand, remaining the essential part of everyday living and determinant of wellbeing of area inhabitants, not only due to its necessity for healthcare in pollution conditions but also because of lack and underdevelopment of other services, including public transportation (both interregional and local), and ways of free time spending.

The further discussion of the topic is aimed to possible ways of sustainable development of Norilsk in terms of recreational resources: how to balance quality of healthcare, free time of locals and quality of natural and built environment in the region with regional economic development and global power in the mining industry.

Minna-Carita Haantie Lecturer - Tourism education Sámi Education Institute minna-carita.haantie@sogsakk.fi

"Creating a working education model for community based travel among local indigenous communities in Finland and further in other indigenous communities"

Community based travel has been seen internationally as a sustainable way of benefiting local cultures such as indigenous peoples' communities. Recent studies refer to community based travel as it is not as useful for the communities as thought before. This is because the local communities are expected to give their time to tourists and take tourists as part as their daily life and tasks. Tourists should give some payment to local people for this effort but there is no model for pricing. In conclusion this can turn as a catastrophe for local communities because it is no more community based but is based actually on tourists' expectations and wishes how the so called "service" should be available and how much it can cost. Pricing for services is not modelled and local communities don't necessary know how to price their services.

When the model of community based travel works well for local communities, it can even save cultures and give local communities extra income and does not disturb the normal way of life of the community. In Inari municipality for example a community based desire to show and present its culture has partly been a saving aspect in keeping up an eastern / skolt sámi culture in a tiny village called Sevettijärvi few yeasr ago. In Sámi education center in Inari there has been a goal to develop a working education model for community based travel in Inari village where sámi population is quite large. This model could be transferred to Alaska and Nomi where also the education center has contacts. Also in Alaska there lives a large local indigenous population that could benefit more of tourism that is already rapidly developing in both areas. The education model in the future could be used in different places.

In Finland a person can be either an employee in a company or an entrepreneur when roughly considering practicing business. Community based travel is not considered internationally as entrepreneurship so it would be interesting and useful for local communities to find a working solution for the model and its education possibilities. Thus, resolving the problem between the model of entrepreneurship and the model of community based travel could involve local people more in tourism and its benefits.

In my presentation in Inari I am going to open the dilemma of community based travel in Finnish Lapland by shortly telling more about community based travel internationally and about its possibilities in Finland when considering entrepreneurship and show some more details of Sevettijärvi case.

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"Preconditions for resilience and sustainable development – 'Geopolitics shouldn't misused"

How come haven't the prognoses of a new 'Cold War' and emerging conflicts in the Arctic been, yet, materialized, and why is the achieved stability so resilient? At the 2010s the Arctic is peaceful and (geo)politically stable region, and is not overtly plagued by conflicts. An answer lies on the fact that the stable and friendly (post-Cold War) Arctic has been, and is, so valuable for the Arctic states and its peoples in general and particularly in globalization and the global economics. The phase, "Geopolitics is back!" is not only misleading and harmful, but also false and distorted. 'Geopolitics' has stayed in the region although the Cold War has ended like for example, Arctic resource geopolitics, climate change weakening of the states' ability to protect sovereignty, and a region-building. It is possible to argue that the Arctic is exceptional, even a new metaphor for an 'Exceptionalism', in the international system, and international politics and IR. Furthermore, although it might not sound media-sexy, this clearly shows the power of immaterial values and human capital in politics and governance, such as devolution, selfdetermination and the interplay between science and politics. A relevant question is if the key actors of the Arctic are ready for a paradigm shift in approach, and a cultural shift for to develop mind set for Arctic resilience? This presentation defines the post-Cold War Arctic geopolitics, and particularly how the high stability was achieved. Secondly, why to say that the stable Arctic region is exceptional in international politics / IR, and what kind role of 'Exceptionalism' can play in critical reading on IR and Geopolitics. Thirdly, it discusses on stability- and peace-building, and main preconditions for resilience and sustainability in the global Arctic. Finally, the presentation analyses an importance of immaterial values and human capital, and that of trans-disciplinarity, when to face the grand challenges (in the Arctic region).

Victoria Herrmann PhD Candidate, Scott Polar Research Institute, Cambridge University vsh212@gmail.com

"Frozen assets in a globalized arctic Creating a path for resilient innovation in the high north"

In the Arctic, natural resource production and pricing is often used as a proxy to measure community wellbeing. More recently, many of these ventures have been dubbed 'sustainable' to promote good press and economic investment. But often this type of sustainability does not help communities build adaptive capacities for long-term growth in a region seeing rapid connectivity, social, and climate changes. The labeling of sustainable development to petroleum projects, which inevitably rely on boom and bust cycles of a finite resource, are a testament to this. The presentation argues that a more globalized North and volatile oil markets have created a path to redefine development away from extractive industries and towards human-centered innovation.

The presentation will offer an analysis of that opportunity. It will argue that the prospect of stranded assets in fossil fuels, climate change policy, and the globalization of the Arctic offer a chance to invest in resilient development and build community capacity to deal with the transformations of the 21st Century. The presentation will contend that stranded oil assets provide an opportunity to move away from sustainable development of extractive industries towards resiliency through investments in other sources of value creation. It will examine the potential for a transformation from current development structures based on exporting raw materials to a more resilient development platform based on exporting knowledge. It will focus on economic clusters of technology and technical expertise innovation in remote renewable energy and microgrid systems. The presentation will use path dependence theory and the rich scholarship on Arctic sustainable and resilient development to understand both the theoretical dimension and paradigm shift of such a transformation.

Jussi Huotari Researcher, PhD candidate Aleksanteri Institute, University of Helsinki, Finland Jussi.a.huotari@helsinki.fi

"Greening the oil and gas business: the rise of the environmental in corporate strategies?"

This presentation explores the role of environment in the corporate strategies. Due to the central role of fossil fuels, particularly oil and gas, in a global energy mix have energy corporations rose among the most valuable companies in the World (see e.g. http://fortune.com/fortune500/). The emergence of the global environmental policy (GEP) since the 1960s has formulated as a counterbalance to the energy industry and its' sustainability. The threat of disruptive climate change has thrown the spotlight on the critical role that energy plays in shaping the future relationship between human society and natural environment. To respond to the critique of environmental NGOs and GEP in general, energy corporations, both state-owned and transnational corporations, have published environmental strategies as a part of their corporate social responsibility reports. This presentation provides an overview of the environmental strategies of Statoil, Gazprom, ENI, and NOVATEK. These companies were selected since they all have ongoing operations or licenses to operate in the Barents Sea.

Ludmila Ivanova Senior researcher, PhD (Econ.) Luzin Institute for Economic Studies Kola Science Centre, Russian Academy of Sciences, Russia

"Management of Mineral Resource Use in Regions of the Russian Federation"

Economic interests are part of not only national but also regional interests. Among natural resources of the Murmansk region mineral resources occupy the leading place. Subsoil use is carried out on the basis of licenses, which is regulated by the Federal legislation of the Russian Federation. Basing on the existing division of powers between the federal and the regional levels there are two regimes of subsoil use depending on the significance of mineral resources. At the same time there are problems related to subsoil management. Under the current situation regional and local authorities have practically no control over resources located on their territories (except for common minerals). However this right is also infringed by a number of restrictions. The notion of "common minerals" is not legally identified; there is no single list of them for all regions. Regional authorities do not receive information about the subsoil condition on their territories that deprives them of an important tool for current and long-term planning of socio-economic development. This is quite relevant for the Murmansk region as a resource-based region. It is necessary to make substantial amendments in regulatory acts for in particular empowering the regions to dispose small deposits of the major minerals, and obliging subsoil users to take part in solving social and other problems of the regions and to develop the infrastructure sector.

Markus Kröger PhD, University of Helsinki, Finland

The Power of Words: What Weight do Key Concepts such as "Resilience" carry?

Several new publications within political ecology have suggested that words such as adaptation, resilience and vulnerability would have a power by themselves to force certain types of actions (Taylor 2015; Watts 2015). The underlying understanding in institutional policy frame analysis is similar. For example, Beland Lindahl et al. (2015: 6), drawing on Perri 6 (2005), argue that frames have a power in themselves (as outcomes of framing processes) to "represent people's worlds in ways that call for particular styles of decision-making or action". This approach of frame analysis that has been used in policy studies (Perri 6, 2005), suggests that a narrative, discourse, concept or frame, can have a huge power, quite independently. A similar understanding is present also in other fields. Michael Watts (2015, 41, italics mine), for example, contends that "resiliency-adaptation is an apparatus of security that will determine the process of 'letting die'... an expression of the neoliberal thought collective – in which the idea of a spontaneous market order has become, ironically, a form of sustainable development." Taylor (2015, 10, italics mine) has a roughly similar understanding of the power of concepts (or frames here), arguing that "the concept of adaptation seemed peculiarly resistant to being inscribed with questions of power" and that, in its travels, "it has carried with it an encompassing analytical and political baggage that stems from its foundations in Cartesian rationalism." While both of these analyses of a key concept of sustainability are in line with the conceptualization of "frame" in the frame analysis of Perri 6 (2005) and Beland Lindahl et al. (2015), there are also some nuances. Taylor would seem to put more emphasis to the power of the machine behind the frame, while Watts would seem to underscore more strongly how frames do have independent power. In any case, these recent theoretical advances suggest that frames have to be taken seriously, and an attention on important new concepts is justified.

In this perspective, frames can be seen as forms of thought, these themselves having important ramifications up the whole pathway that they "suggest". In the perspective of these critical readings, "resilience" might not be the correct "form of thought" to address or surpass the dilemmas within the "sustainable development" concept. New concepts are needed to address the problems that the Arctic and the world face. The recognition of the power of words, studying what a concept has "eaten", is essential in steering away from potentially more problematic concepts.

However, there are also competing views that see the words per se not as important as how they are used: all new uses changing the meanings. Thus, critical actors have started to adopt for example the concept of "governance" – that has been criticized as being neoliberal and undemocratic in its 1970s etymological roots – so as to change the meaning of the word and to cover by it also issues of critical political economy. There are also many critical scholars, such as Miguel Altieri, who use concepts such as "resilience" to "capture" the powerful concept to describe how for example agroecological producers are more resilient than agribusinesses. These approaches to words emphasize that words can be corroded, and what matters more is how they are actively being framed, via applications, than what they frame.

Katri Kulmuni, Member of the Parliament, Finland katri.kulmuni@eduskunta.fi

"A small introduction to Tornio and Tornio River Valley - A border that never existed"

This short paper looks at the history of Tornio, a small border town in Western Lapland that forms a twin city with its Swedish neighbouring town Haparanda. The paper accounts for the towns trading past and the international culture that developed in the Tornio River Valley region. Tornio River Valley is an example of an area where the border never existed in reality until it was forcibly drawn there as a result

of power politics, dividing families, lands and languages, and how the communication still continued across the newly introduced border. Also, the paper discusses the recent structural economic and political changes that have called into question Tornio's nature as Lapland's most international and industrial town and looks at its future prospects.

Ayonghe Akonwi Nebasifu PhD candidate Faculty of Social Sciences, University of Lapland

"Rethinking the Co-existence of Industrial Mining and Protected Areas: Socio-economic Considerations for Sustainability. Case study: Hannukainen Mine in Northern Finland"

Sustainable development in globalization involves practices that make up the socio-economic and political systems of communities evolving in time and space. As technology, trade, and migration patterns change with intense competiveness between economies, the challenge remains for humans to meet the needs of present without compromising the ability of future generations. Industrial mining is one of the crucial areas in globalization. Historically, imbalances in the post-WWII era that led to increase in demand for metals to rebuilt economies. The collapse of Soviet Union in 1990s influenced reliance by North America and Western Europe on imports of metals from Third World countries, and the fall in metal prices during the 2008 economic crises with subsequent price increase in 2010.

One area of interest in the Barents region is the location of mines near protected areas which triggers concerns of endangering ecological landscapes and undermining human needs. In contrast, the argument that mining brings employment to the community poses the inquiry if mining and protected areas can co-exist sustainably in a globalized era. With a case study of Hannukainen mine near Pallas-Ylläs National Park in Finnish Lapland, this theoretical paper uses a discourse analysis to review the socio-economic problems of mining to the community and suggests its beneficial factors. It concludes with the reflection that establishing mutual understanding between stakeholders requires weighing of risk and beneficial factors to the community while ensuring flora and fauna population maintenance.

Teemu Oivo PhD candidate, Karelian Institute, University of Eastern Finland, teemu.oivo@uef.fi

"Flexible Images of Russianness' in Eastern Finland"

The late international developments have highlighted how political changes can quickly challenge the established identical positions of peoples. My dissertation research involves mediated realities of constructing the competing, and even conflictive ideas of 'self' and 'other' in both sides of the Finnish-Russian border. I am involved in a project about the discursive production of images of Russia, conducted comparably by research groups in the Baltic States, France, Finland, Poland, Central Asia and Moldova. Besides the mapping of images of Russia in general, the aim is to explore the conflicting narratives in order to create templates of conciliation for improving inter-ethnic understanding and tolerance. In Finland, the images of Russia have been studied relatively much, but in the regional studies, the focus has dominantly been in the field of business and economy, instead of social research, so my focus is in Eastern Finland.

After the fall of USSR, the interaction between Finns and Russians has grown significantly in Eastern Finland: New business opportunities and mobility between the opening borders, have required the region's peoples to consider critically their attitudes and long-term behavioral strategies for having desirable social and economic relations with Russians, arguably the main others for the Finnish national identity. Political developments in recent years have brought new rapid changes in local everyday relations, as the trade has fell and tensions in political discussions have grown. While my project group's work will include in-depth qualitative interviews with officials and local residents close to the Finnish-Russian border, my work will consist of analyzing the documents of regional administration and public discussion in local newspapers and region's internet forums. I will present the related research setting relating to border studies and public discussion with examples of my previous study about the Republic of Karelia.

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"Indigenous peoples' possibilities to influence on decision-making: case study of Finland"

The Sámi people are indigenous people's group living in the northern parts of Norway, Sweden, Finland and Russia. Their culture and traditional livelihoods have always been strongly connected to the nature and they have a long history in exploiting natural resources. With traditional knowledge they have managed to regulate their exploitation of these resources in a sustainable manner. However, in the 17th century the impact of other cultures started to increase rapidly in Sápmi region and the number of new actors has increased in the region ever since.

Increasing power of the states in the Sámi people's homeland region has led to some conflicts of interests between the states and Sámi people. While the states try to boost their economic growth the voices of minority groups stay often unheard. For example in Finland conversation over indigenous people's possibilities to take part in decision-making processes concerning the use of the resources of their homeland region has burst radically lately. Despite many protest voices among the Sámi people the situation has not visibly improved and this can be seen for example in the public conversations and media.

This paper will discuss how the Sámi people are engaged to the decision-making processes when building resilience at the state- and regional level in Sápmi. Especially environmental and political aspects are highlighted in this presentation, since the environment is seen as one of the most crucial elements of the Sámi culture. It is also one of the most vulnerable resources which the Sámi people still have managed to preserve relatively clean in this region.

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Norwegian-Russian oil and gas cooperation in the Northwest Arctic: is there life after sanctions?

The paper presents some results from PETRONORTH – PETROSAM-2 research project "The emergence of a new petroleum province in the High North – integrated or fragmented?" (2014-2017, lead institution – Arctic University of Norway). Within the project, the study on the cross-border

cooperation in the field of oil and gas between Norway and Russia has been conducted, with geographical focus on the Barents Sea and the Murmansk region.

It is widely recognized that oil and gas industry in the Arctic is one of the greatest challenges to the environment. At the same time it is viewed as one of the few industries with the financial resources, project experience and technology able to ensure environmentally, economically and socially sustainable development in the Arctic. Norway and Russia started the dialogue on energy development in the 1990es. The progress of cooperation was driven by the common interests in developing petroleum resources in the High North, in particular, in the Barents Sea, as well as by expectations to mutually benefit from transferring knowledge, technologies and experience and to receive positive effects both nationally and regionally. Petroleum cooperation was also seen as a mean to secure environmentally sustainable future of the Northwest Arctic due to the possibilities to develop jointly new technologies and infrastructure for preparedness, prevention and response that could lead to improved safety and environmental protection.

During the last 20 years, Norwegian-Russian petroleum cooperation was established between the oil and gas companies, in oil spill response, in education and research, in the frames of professional public associations, in petroleum service businesses and in some other spheres. In 2014-2015, when oil prices have dropped and sanctions have been imposed on Russia over Ukraine, the cooperation was greatly challenged. This paper will discuss the impact of political tension on Norwegian-Russian oil and gas cooperation in the Northwest Arctic. Based on the bottom-up approach and data received in the interviews with experts from organizations participating in petroleum cross-border cooperation in the Murmansk region, we will try to answer several questions. First, how the cooperation has been affected and which parts of it are more sensitive or more robust? Second, what are the major factors of robustness in cooperation? And third, what are the future prospects for cross-border cooperation between Norway and Russia in the field of oil and gas?

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Sustainable Development, Resilience or Resource Fairness? A pan-Arctic approach for sustainability

In the twenty-first century, international attention on the Arctic is increasing. The Arctic holds vast proven and estimated natural resources, including large amounts of minerals and hydrocarbons. Governments exercising sovereignty over Arctic territories (which capitals are all south of the Arctic Circle) have indicated their intentions to extract these vast natural resources and promote the (sustainable) economic development of the region. In addition, many non-Arctic states such as China or India have indicated their interest in the Arctic. Yet, the region has seen a much stronger focus on the extraction of natural resources, while socioeconomic and socio-political issues (ad development) lagged behind.

As climate change makes its effects most visible in the Arctic, Arctic communities (both indigenous and non-indigenous) are rapidly adapting to a changing environment while facing a dilemma between the preservation of the environment and their traditional ways of life, fair and sustainable socioeconomic development, or a rapid industrialization and exploitation of natural resources driven by (volatile) market prices.

It is in this shifting context where the concept of resource fairness, or the approach to socioeconomic development that takes into account the legitimate interests of all involved actors, comes into place. Although resilience may be needed to adapt to this changing environment (at the political, socioeconomic and environmental levels), resource fairness is needed to identify possibilities for actual sustainable development as well as the needs, claims and interests of Arctic communities.

Linked together, resilience and resource fairness can offer an effective approach to sociallydriven and long-lasting sustainable development in the Arctic; a socioeconomic development focusing beyond the resource-driven policies of the governments of the eight Arctic sates.

Hilma Salonen Researcher, PhD candidate Aleksanteri Institute, University of Helsinki, Finland

"In the core of the planned article is the way in which Russian federal and regional strategies and other official documents utilise norms in order to legitimise investments on new technologies utilising renewable energy sources, especially biomass products."

Even though the use of renewable, local energy sources has received moral support from the state and municipalities, development of this market has been slow. Instead of listing reasons for this situation, however, this article looks into the reality where these types of problems can be fixed by programmes of state support: the official strategies. Based on notions of institutionalism and institutions as both restricting and enabling factors, the article investigates the kind of normative pillars on which the new industry may attempt to lean on in order to ensure social legitimacy. Despite of the fact that some of the goals mentioned in the strategies might never realise themselves, the way in which they are presented to the general public and the norms to which they are linked may reveal interesting details regarding Russia's larger development trends regarding sustainable development and resilience issues.

The data studied consists mainly of Russian federal strategies regarding energy and climate issues and the economic development of the Russian Arctic. The article concentrates especially on the Arkhangelsk oblast since this region has both extensive wood resources and seemingly genuine interest in developing the use of alternative and local energy sources.

At this point, intermediary findings indicate that depending on circumstances, several institutions may act either as a restraining or an enabling element. This contradiction defines greatly the plan implementation environment in the Russian North, but how is it present in the realm of official documents? Could this puzzle help to explain why in the Russian conditions, even a strong political incentive is not always enough when modernising the energy industry?

Alexander Sergunin Professor St. Petersburg State University sergunin60@mail.ru

Environmental policies of Russia's Arctic industrial centres: survival or resilience strategies?

The main research objective of this study is to examine and compare environmental strategies of several largest industrial cities in the Arctic Zone of the Russian Federation (AZRF). There are three specific purposes with this analysis: First, to evaluate the scope and focus of environmental programs that are implemented by the AZRF cities such as Murmansk, Monchegorsk, Apatity, Norilsk, Vorkuta, etc. Second, to find out whether these strategies are efficient or not? Third, to understand whether these policies are of short-term/single issue character or they represent forward-looking strategies that are conducive to the sustainable socio-economic and environmental development of the northern urban areas?

Particularly, my study will focus on the following priorities of industrial centres' environmental strategies: Creation and development of an efficient administrative/managerial system

Development of a proper legal basis, including power-sharing with the federal and regional governments

- The focus on prevention and reduction of pollution rather than on cleaning up the environmental mess
- Rehabilitation of damaged natural environmental system (damage assessment, targeting the priority areas, clean up programs, monitoring)
- Solid and liquid waste treatment
- Targeted programs to protect endangered species
- Development of monitoring system in various areas (prevention of natural and man-made disasters; air and water pollution; endangered species, etc.)
- Development of civil protection services in coordination with the federal structures
- Development of public-private partnerships in the environment protection sphere
- Encouraging environmental research (support for the local universities and research centers)
- Developing environmental education and culture
- Cooperation with NGOs and mass media
- International cooperation (Arctic Council, BEAC, International Polar Year, IPCC, UNDEP programs, country-to-country, region-to-region, town-to-town cooperation, etc.).

Atle Staalsen Journalist The Independent Barents Observer, Norway

"The Independent Barents Observer (IBO)"

The newspaper is new. But the spirit of the Independent Barents Observer is not. News team Thomas Nilsen, Trude Pettersen and Atle Staalesen started up and developed BarentsObserver.com until they all quit or were dismissed from the Norwegian Barents Secretariat in fall 2015.

The new media company was established on 7th October 2015 following a conflict over editorial independence with the Barents Secretariat owners; the three northernmost Norwegian counties of Finnmark, Troms and Nordland. In the course of that process, the Barents Secretariat owners turned down the journalists's bid for editorial independence for the BarentsObserver.com arguing that independent journalism could «harm the good cross-border relations in the region».

The Independent Barents Observer is today a journalists-own online newspaper operating in line with the acknowledged principles of independent media. It is based in Kirkenes, Norway, working with cross-border journalism in the Barents Region and the Arctic. www.thebarentsobserver.com

Florian Vidal PhD candidate Paris Descartes University, France florian.vidal@gmail.com

"Resilience: From the Roman Empire to the Arctic"

Through world history, societies have been confronted to complex issues that may lead to collapse. As some failed to adapt, resilience is a key comprehensive concept for human communities to develop abilities to deal with increasing complexities. Nowadays, the Arctic community could exemplify the building of a new model able to cope and evolve as contemporary societies face unmatched challenges.

• Resilience v. Collapse: An historical perspective

In the course of centuries, cases that human societies failed to survive when disruptions appeared and challenged these societies are numerous. Nevertheless, others succeeded in different ways to adapt and

evolve by implementing new rules such as Japan during the XVIth century (i.e.: forest management). But regardless failure or success, complex societies are susceptible to collapse in a way or another. The fall of the Roman Empire is a testament among others to the fact that advanced, sophisticated, complex and creative civilization can stand both fragile and impermanent.

• Contemporary civilization: Headed for "irreversible collapse"?

Modern world economy is currently eyeing a growing conflict between food and fuel. Indeed, depending on many of the same finite and diminishing resources, industrial civilization witnesses mounting instable commodity stocks on the market in recent years. Besides, as population grows, a technology makes it easier to exploit decreasing resources while the environment's diminishing returns are hidden from view.

• The Arctic community: Building resilience

In that perspective, it appears essential to understand what is at stake at the global stage in order to set up a model from the Arctic community. As a given community's economic and social structure, potential change is the key for the Arctic community. Its adaptive capacity and capability asks flexibility from individual household to the whole community. By building resilience, the Arctic community might find imitators among other communities.

Anssi Vuori PhD candidate Faculty of social sciences, University of Lapland, Finland

"The Emerging Political Space of the Internet: International Relations in the Virtual Reality"

My doctoral thesis research deals with the emergent political space of the Internet. The virtual space is becoming an important location for political activity and struggle and developments in the scope and denseness of the Internet, the network is developing into a deeply connected yet separate space of activity in itself. Internet is emerging as a highly active space of political, economic and social activity and its effect on everyday life is intensified. It is becoming clear that the cyberspace is becoming an important location for political struggle.

Internet is most often dealt as an auxiliary feature of other social phenomena and especially as an enhancing feature of the globalization process. As a rule Internet isn't dealt as autonomous entity under International Relations. This thesis is partly an attempt to rectify the situation by developing a critical perspective to the Internet as political space and the actors working in it. I propose developing an understanding of the dynamic cyberscape that takes account the particular nature of the Internet and digital technologies as a dynamic, intertextual and extremely fluid political environment. Many central concepts of political science also require re-assessment when considered in relation to the more dynamic and malleable reality of the Internet.

The planned approach of this research can be described as post-structural and critical. The goal of this research is to develop an interdisciplinary approach to the political space created by the Internet and accompanying digital technologies using methodologies and theories of political science, aesthetics, linguistics and geography. By using methods such as discourse analysis, study of the technologies of government, rhetorical analysis and geopolitics, the research attempts to develop a clear understanding of the dynamics of the virtual space and how this affects the activity within.

Gleb Yarovoy Associate professor Petrozavodsk State University, Russia

"Sustainable development of Russian Arctic regions in the context of regional policy"

The paper will highlight some general trends in regional dynamics of the Russian Arctic territories in the context of regional policy in Russia. First, it would overview the legal basis and the institutional dimension of regional policy, which lacks "good governance" in both mentioned aspects. Second, it would generalize the strategic importance of the Arctic for Russian economy, and emphasize the important but insufficient instruments of the sustainable development of the High North territories (e.g. the activities by the State Commission on the Arctic development, the Strategy of Russian Arctic Zone development etc.). Further on, it would speculate on how Russian Arctic regions look against the background of other Russian regions. This is quite a complicated task since e.g. there is no specific "Arctic" regional statistics in Russia. Finally, I would refer to different proposals on how to upgrade regional policy and regional development instruments aimed at the sustainable development of the Russian Arctic. The paper will conclude by the discussion on the main question: is sustainable development of the Arctic Zone of Russia is possible by the virtue of a few "breakthrough" megaprojects without carrying out a real perestroika of the whole system of (regional development) governance.

"Freedom of speech and freedom of media in the Russian Arctic: mission impossible?"

Russia keeps being a very traditional country in all possible senses. Russian population holds traditional political culture, which prohibits the majority of Russians from participation in any social and/or political activity and promote etatism and "blind believe" in "good Tsar and bad boyars". Mass media are one of the main tool for keeping and promoting the traditionalist traditions. TV plays the main role in that, that's why we have the only federal-level oppositional TV-channel, "Dozhd", "The Rain". Newspapers (including the web-versions) are on the second place. Here we have more options to choose, but the assortment is also limited to few nation-wide known newspapers such as "Novaya Gazeta", "Vedomosti" and some others.

On the regional level the situation significantly differs: from regions with non-existent "independent" media to a moderately good presence of "free" media on the market. The paper will analyze the situation in some Russian Arctic regions and show how the federal (and regional) authorities are trying to prevent the "independent" (regional) media from influencing the society.

Anna Yarovaya Journalist Scoop Russia Coordinator, Russia

"Investigative journalism as the last chance for Russian journalism (also in the Arctic)?"

Russian journalism is experiencing an obvious "genre crisis". The general feeling of the professional community is that pressure on the independent media, venality and self-censorship of journalists leads to "degeneration" of journalism. It is revealing that the number, not the quality of the journalists' materials is on the first place. There are exceptions, of course. However, the small number of "proficient" independent media is an exception that proves the rule.

Is the situation hopeless, or is there any positive solution? There are two possible answers to this question. The first is that as long as the political regime in Russia, whose main pillars are the power structures, oligarchs and mass media as the propaganda weapon, does not soften, the situation will not change. This answer is poor because of its bad fatality. Wait in vain for the "regime change" may be long, or endless; that's why this is not the option.

The other option is in the scope of this presentation. The other option is that independent journalism and independent journalists should be saved by all possible means. One of those means is support to investigative journalism as the most promising genre in terms of potential "independence", critical to any governing systems.

The presentation will highlight the process of investigative journalists' community creation in the North-West of Russia. It will also emphasize the role of the Nordic countries in this process, as well as point out the problems faced by both the organizers and participants of the "SCOOP Russia" project, one of the biggest investigative journalism projects.

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Adaptive realities of single-industry communities of Murmansk region in the changing Arctic

Murmansk region is one of the regions within the Arctic zone of the Russian Federation; and is one of the most heavily industrialized territories. Among other Arctic territories of Russia, region holds the first place by the number of single-industry cities (8: Polyarnie Zory, Kirovsk, Nikel, Zapolyarniy, Tumanniy, Monchegorsk, Revda, Kovdor). At present 23% of the region's population (over 150000 people) live and work in single-industry cities and set up the greatest industrial potential for further socioeconomic and sustainable development of this area. The most part of regions' single-industry cities has a mining profile. The resource role of the Arctic is strong and doubtless. Resource stocks are expansive due to the new exploration possibilities opened by the human-driven climate and environmental change. But resource markets and political situations dictate their own demands through all the entire historic period from Soviet times to nowadays. These demands place some new economic realities to the industries allocated in the region to which they should be adaptive and resilient.

The exceptional socioeconomic and environmental factors which contribute to facilitation or procrastination of sustainable development of single-industry cities are structural and paradigm changes in economy and functionality of enterprises after collapse of Soviet Union; the triple contradictions of interests: enterprise owner – regional government – local population and workers; downsizing and depopulation; domestic and foreign market conditions; pollution; the quality of life of local population; possible changes of resource potential, and other key factors.

The rapidly changing resource, political and military role of the Arctic and its economy nowadays brings in new challenges and benefits to the sustainable development of the region. An ineffective governmental strategy for social services, human capacity building, socially-oriented regional budget and world/domestic demand for particular resource are major milestones for sustainable development of the region and its mining communities.

Gerald Zojer Researcher, PhD-Candidate Northern Institute for Environmental and Minority Law Arctic Centre, University of Lapland Gerald.zojer@ulapland.fi

"The Arctic Council between global interests and regional development. A continuation of the prevailing economic order."

As the successor organization of the Arctic Environmental Protection Strategy, the Arctic Council is often considered as an institution to promote environmental protection in the Arctic. However, since the dominating discourse of this Arctic cooperation shifted in favor of sustainable development, economic aspects moved into the center of the Council's agenda. As the Council is a soft law cooperation, its main power is in policy shaping and coordination of Arctic developments. Thus, the policies of the Council can only be understood when also considering the national policies and interests of the Arctic states.

Given the colonial history of the Arctic, not only environmental concerns but also human development approaches towards the Arctic inhabitants need to be analyzed in order to understand this Arctic cooperation. In the focus of both, the national Arctic strategies as well as within the cooperation through the Arctic Council, the development of non-renewable resources, designated for southern and global markets, rather than a sustainable development based on renewable resources for local utilization are getting most of the states' attention. Consequently it is questionable if the prevailing strategies for the development of the Arctic, communicated by both, the Arctic states and the Arctic cooperation, are aimed for increasing human security in the region, or are rather aimed to satisfy the interests of the dominating groups in the political and economic centers in the South. The main question this paper aims to follow is if the Arctic cooperation – by virtue of the Arctic Council – can be seen as part of a hegemonic project in order to satisfy the interests of the dominating elites in the economic and political centers in the South, rather than to develop the Arctic in a local and ecologically democratic manner. This also raises the question if there are continuities from the colonial past of the Arctic region. The paper will elaborate on these questions by utilizing approaches from the politics of scale, neo-Gramscian and neo-Poulantzian traditions.

About Calotte Academy

by Lassi Heininen¹

The Calotte Academy (CA) is on the one hand, an annual traveling symposium in Europe's Arctic, North Calotte region and an international, independent, though not established, academic forum - with tens of scientific presentations, lively presentations and written reports - in the Arctic. It is designed first, to promote interdisciplinary discourse and second, to foster academic and policy-oriented dialogue among members of the research community, as well as a wide range of other northern stakeholders, such as policy- makers, civil servants, community leaders and planners, and members of academia. On the other hand, it is an international summer school for early-career scientists, particularly PhD candidates and post-docs with an aim to implement the interplay between senior and young researchers, and post-graduate students.

The CA is also an independent, though not established, academic forum with tens of scientific presentations, lively discussions, and written reports. We also do interdisciplinary border studies by having several crossings of national borders (Finnish-Norwegian, Norwegian-Russian, Russian-Finnish, and sometimes Finnish-Swedish and Norwegian-Swedish), as well as crossing borders between Finland and the Saami Area, Sapmi in Finland, Norway and Sweden).

The Academy has been arranged annually since 1991 with an aim to bring together academics and other experts, policy-shapers and other stakeholders as well as students and scholars with different academic backgrounds and in different stages of their academic careers. The Academy has a participatory approach with sessions in several destinations with local audiences and expertise. Furthermore, it aims to contribute to discussions and debates over regional development through inviting local and regional stakeholders to participate in the sessions with the intention of sharing research results and insights, creating networks and fostering dialogue between the local and national actors and the international scientific community.

At the Calotte Academy we use to combine a few things, such as research, theory and practice and action; different studies, inter-disciplinarity and different knowledges (trans-disciplinarity); research, supervision and studying, and teaching; presentation, participation, interactivity; brainstorming, planning, sharing ideas, having division of work; different scales from local to global; and final, synergy between international networks (e.g. Northern Research Forum, TN on Geopolitics and Security, Arctic Yearbook).

Following from this, in each session of the Academy the annual overarching theme is discussed holistically from many angles and disciplinary approaches, and from the perspectives of past(s), present(s) and future(s), as well as from global, Arctic and local context in the European Arctic. This principle has particularly been implemented at the four previous Calotte Academies: May 28 – June 4, 2012 in Kiruna and Abisko, Sweden, Tromsø, Norway and Inari, Finland under the theme "Water – globally and in North Calotte"; in May 16-23, 2013 in Rovaniemi and Inari, Finland, Tromsø, Norway and Kiruna, Sweden under the theme "Resource Geopolitics – Energy Security"; June 1-8, 2014 in Rovaniemi and Inari, Finland, Kirkenes, Norway, and Murmansk and Apatity, Russia under the theme "Resource Geopolitics – Sovereignty"; and in May 31-June 7, 2015 in Rovaniemi, Salla and Inari, Finland, in Kirkenes, Norway, and in Murmansk and Apatity, Russia under the overarching theme "Resources and Security in the Globalized Arctic" (See Final Reports of Calotte Academy 2012, 2013, 2014 and 2015 at www.arcticpolitics.com).

¹ This description is based on, and a case study in, Heininen's theoretical article (forthcoming) on the social relevance of science, or science diplomacy, and the interplay between science and politics in general and particularly in the Arctic.

Correspondingly, the CA has a few rules and principles – they are first and foremost, that there is always time for open discussion – usually this means about two times more time for open discussion than for presentation. Second, that each participant will, in addition of her / his presentation, write a report on one session for the final report of the Academy and actively participate in discussions. Final, each participant is asked to be flexible, as are the organizers, but keep the time frame and schedule in sessions and in travelling.

Thus, the Calotte Academy uses to implement the social relevance of science, or science diplomacy, by having the interplay between science and politics as one of the main aims. This has been there since the first Calotte Academy, which took place in May 1991 in Inari, Finland. Behind is that the Arctic Environmental Protection Strategy (AEPS) was signed at the first ministerial meeting between the eight Arctic states in June 1991 in Rovaniemi, Finland, and the Arctic Council was established in September 1996 in Ottawa, Canada. During its 25 years the Academy has built partnerships between researchers and community members, and done community-based research as well as developed research models for communities.

As an international platform for policy-oriented dialogue and dissemination of research with an emphasis on both expertise and dialogue, the Calotte Academy is a post-modern academic stage and workshop that fosters interdisciplinary, knowledge(s) and dialogue-building, and implements the interplay between science and politics. Since 2002 the Academy has served as a sub-forum for Open Assemblies of the Northern Research Forum. Since 2010 the CA has acted an annual doctoral summer school for PhD candidates and functioned as the main annual forum for the discussions and research planning of the Thematic Network (TN) on Geopolitics and Security. The TN is a joint international, academic network between the University of the Arctic and the Northern Research Forum (see, p. 38 in this report). The Network also publishes The Arctic Yearbook - the 4th volume devoted to the Arctic Council will be launched in November 2016 – via which a state of Arctic geopolitics and security will be documented, analyzed and contributed (see, p. 39 in this report). Here the Arctic Yearbook is a major forum for dissemination of the main findings and highlights of the Calotte Academy, as well as further discussion on the themes.

To conclude, the Calotte Academy is an interdisciplinary brainstorming meeting to bring researchers and other experts from different fields, regions and countries together for to discover innovations and new methods, and produce international research projects as well as plans and applications. This kind of a "school of dialogue" with serious efforts and flexibility aims to create an open academic discussion, and participatory by nature with an idea to share knowledge and experiences with communities. Behind is a need for science and the scientific community to take literally the social relevance of science, and that science is with values and more than labs, it is about people(s), societies and the environment. Briefly saying to 'take care', instead of having corrupted norms of double standards, or the current schizophrenic approach of neoliberalism supported by specific expertise and meritocracy, is possible to interpret as a new norm with values. In the turbulent times for Academia, as in many European countries, due to many pressures and cuts in funding this kind of academic forum and activity is a much needed democratic and equal space for a dialogue and brainstorming.

About Calotte Academy Fellowship

There has been an idea to institutionalize the cooperation and partnership with those senior scholars and other experts (either with PhD and professorship, or other kind of real expertise on Northern / Arctic studies), who have attended, given a presentation at, supervised the young researchers of, or other way contributed the Calotte Academy within the last years. Followed from this, the Calotte Academy Fellowship was launched at the opening session of the 2016 Academy in May 30 in Rovaniemi. Among

the first Calotte Academy Fellows are Prof. Matthias Finger, EPFL, Switzerland; Director Liisa Holmberg, SAKK, Finland / Sápmi; Prof. Steve Lamy, University of Southern California, USA; Prof. Heather Nicol, Trent University, Canada; Dr. Larisa Riabova, Luzin Institute of Economic Studies, Russia; and Prof. Alexander Sergunin, St. Petersburg State University, Russia.

The Calotte Academy Fellowship is an additional human resource for research, when planning research and raising funds for research, as well as for supervision of PhD candidates and advanced MA students. Calotte Academy Fellows have already contributed, and will contribute, the research done at / by Faculty of Social Sciences at University of Lapland, as well as PhD candidates of the faculty. It is a loose network of Arctic experts all over the Arctic Region, from Nordic Region, North America, Europe and Russia (at the first stage).

Calotte Academy Steering Group

The Calotte Academy project is led by Professor Lassi Heininen, Faculty of Social Sciences at University of Lapland (e-mail: lassi.heininen@ulapland.fi tel. +358-40-4844 215) and co-coordinated by researcher, PhD candidates Laura Olsen (e-mail: laura.olsen@ulapland.fr; tel. +358 40 484 4022) and Gerald Zojer (e-mail: gerald.zojer@ulapland.fi) at University of Lapland. The Steering Group of the Calotte Academy consists, in addition of Heininen, Olsen and Zojer, Director Marianne Neerland Soleim, Barents Institute at University of Tromsø (e-mail: marianne.n.soleim@uit.no); Senior Researcher Ludmila Ivanova, Luzin Institute for Economic Studies of RAS, Russia (ludmila ivanova@mail.ru) and researcher, PhD Aleksanteri Institute University Candidate Jussi Huotari, at of Helsinki (e-mail: jussi.a.huotari@helsinki.fi).

Organizers and Sponsors

The Calotte Academy 2016 was arranged in cooperation with the Faculty of Social Sciences at the University of Lapland, The Sámi Education Institute of Inari, Department of Sociology, Barents Institute at University of Tromsø, and Luzin Institute for Economic Studies and Karelian Science Center of Russian Academy of Sciences. It is a part of the activities of the UArctic and Northern Research Forum joint Thematic Network on Geopolitics and Security.

The Calotte Academy receives in 2016 financial support from University of Lapland, Barents Institute, Norwegian Barents Secretariat and International Arctic Science Commission.

About TN on Geopolitics and Security

The Thematic Network (TN) on Geopolitics and Security, established and approved in 2009, is a joint network by the University of the Arctic and the Northern Research Forum (NRF). The main aim is to combine the two focus areas – Studies on Geopolitics, and Security Studies -, and based on that to draw up a holistic picture on Arctic geopolitics and Northern security, as well as to identify and analyze major changes of them. Another aim is to promote 'interdisciplinarity', to implement the interplay between research and teaching as well as the discussion between young and senior scholars, and to promote the interplay between science and politics, and that between scientific and traditional knowledge(s).

Research interests and themes

In the context of the Thematic Network 'Geopolitics' include issues, such as "How geopolitics is present, and implemented today in the Arctic, in general and in national strategies and policies"; "Changes in the Arctic, and major forces / drivers behind them"; Indigenous point(s) of view of Geopolitics?"; "What is the importance and role of TNCs, and that of SOEs in the Arctic?; "The globalized Arctic in world politics and the global economy?". Correspondingly, studies on 'Security' include issues, such as "Who are subjects of (Arctic) security?"; "Military strategies and defense policies in, and impacts of regional crises on, security of the Arctic"; "Environmental and Human Security in the Arctic"; "Resource extraction, the global economy, national interests, climate change and global governance – a new Arctic (security) nexus or Arctic Paradox".

Main goals

For to implement the aims and long-term purposes, as well as to promote interdisciplinary discourse on the two focus areas, the TN on Geopolitics and Security (see TN's website: www.arcticpolitics.com): Firstly, publishes annually *The Arctic Yearbook* – the first volume was launched in November 2012 and the next one in October 2016 (see: www.arcticyearbook.com); Secondly, organizes the panel *Security in the Arctic* at the annual Arctic Circle Assembly (in Reykjavik, Iceland); co-organizes the annual international traveling symposium and doctoral school, *Calotte Academy* (Inari, Finland, Kirkenes, Norway, Apatity, Russia and Kiruna, Sweden); and organizes annually 2-3 its own workshops / brainstorming meetings back-to-back to international conferences; Thirdly, makes initiatives for, as well as coordinates, supports and runs, international research and book projects on IR, Geopolitics and Security studies, such as "*The Arctic – a region of strategies and policies. Avoiding a new Cold War*" funded by the Valdai Discussion Club (see: Final Report at www.valdaiclub.com); "*The Global Arctic*", an international expert network and project, in cooperation with the NRF, and "*The Handbook of the GlobalArctic*" book project.

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TN's website: www.arcticpolitics.com



About the Arctic Yearbook

The Arctic Yearbook is intended to be the preeminent repository of critical analysis on the Arctic region, with a mandate to inform observers about the state of Arctic geopolitics and security. It is an international and interdisciplinary peer-reviewed publication, published online at [www.arcticyearbook.com] to ensure wide distribution and accessibility to a variety of stakeholders and observers.

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Arctic Yearbook 2012: "Arctic Policies and Strategies" Arctic Yearbook 2013: "The Arctic of the Regions vs. the Globalized Arctic" Arctic Yearbook 2014: "Human Capital in the North" Arctic Yearbook 2015: "Governance and Governing" Arctic Yearbook 2016: "The Arctic Council: 20 Years of Regional Cooperation and Policyshaping"

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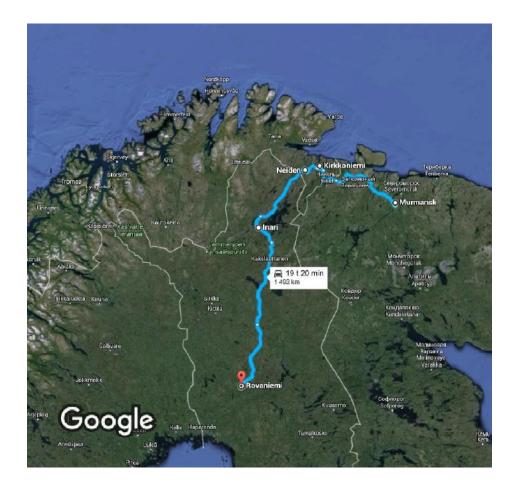
globalarctic

About the *GlobalArctic* Project

The *GlobalArctic* Project is an international framework of institutions with interest and expertise on the globalized Arctic from the Nordic region and from outside the region. It also builds on a long history of activities, among them Calotte Academy, Northern Research Forum, TN on Geopolitics and Security, and Arctic Yearbook. The originality of this proposal is its global dimension whereby 40 organizations worldwide are actively involved in the project.

The project considers the Arctic region in the 2010s to have become part and parcel of global political, economic, technological and environmental, as well as societal, change. Correspondingly, what happens in the Arctic has significant implications worldwide - the region is seen here as a potentially interesting laboratory / workshop of the Anthropocene. Following from this, the context of an emerging research project, which is described in the Matrix at the website, is twofold: The 1st stage, the '*Global > Arctic*', is to (re)define globalization and its multi-functional effects, as well as impacts of rapid climate change, as drivers of change in the Arctic. The second stage is the '*Arctic > Global*' identifies and explores the global implications and drivers of the globalized Arctic affecting the rest of the globe, as well as the role the Arctic plays in world politics and the global economy. Since the 'Anthropocene' is already at play in the Arctic it is needed to find ways out of the old structures. and implement resilience and build new more sustainable policies and structures. The "Building Arctic Resilience, AReC" proposal, by the *Global/Arctic* Project, aims at building these kinds of resilient Arctic institutions.

www.globalarctic.org



www.arcticpolitics.com