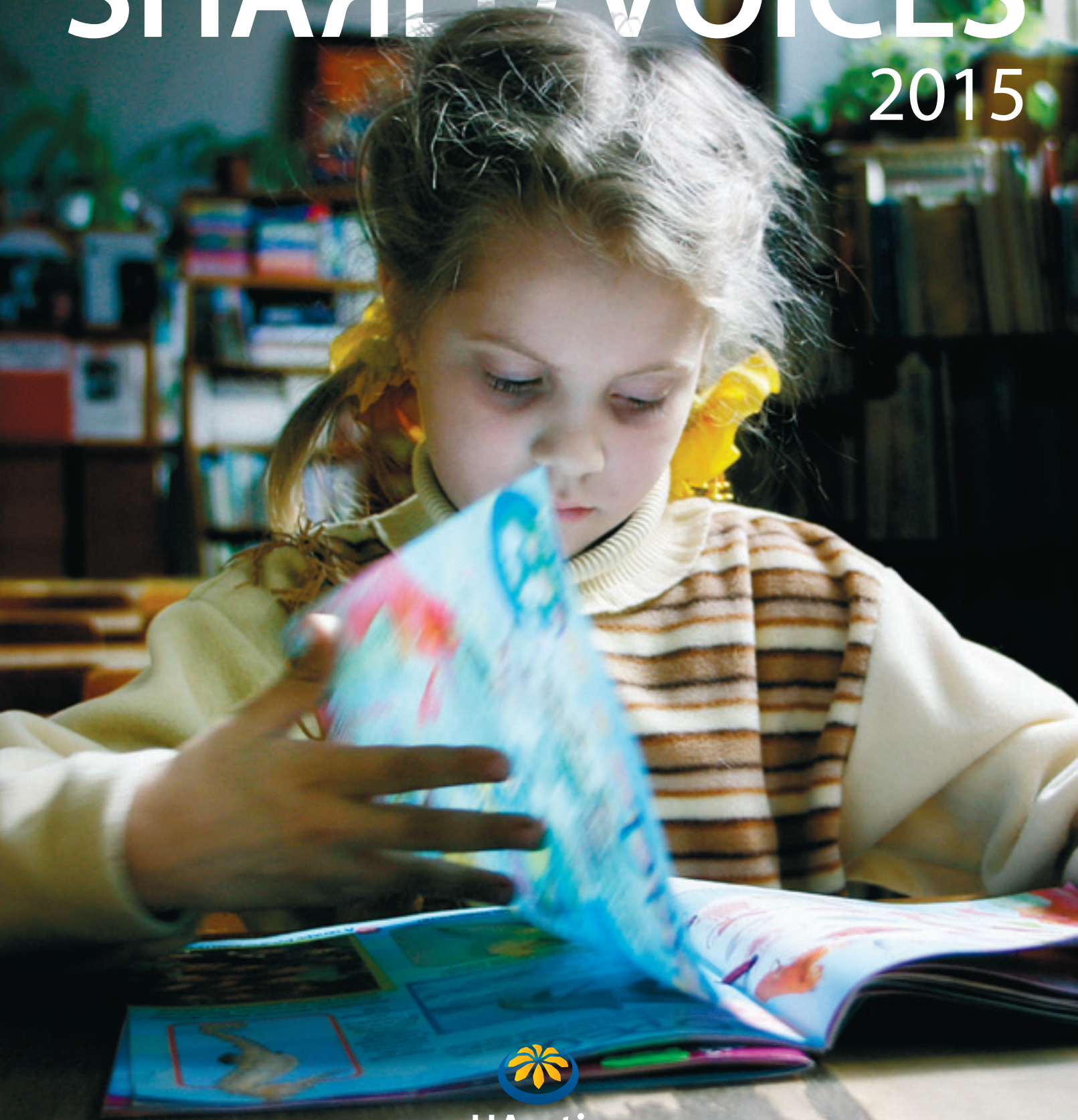


The UArctic Magazine

# SHARED VOICES

2015



UArctic

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Editorial Team  
**Outi Snellman, Marina Kalinina, Scott Forrest, Hannele Palviainen**

Editor in Chief  
**Outi Snellman**

Managing Editor  
**Hannele Palviainen**

Russian Language Editors  
**Olga Klisheva, Svetlana Guseva**

Graphic Design & Layout  
**Puisto Design & Advertising, www.puistonpenkki.fi**

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**Jaakko Kilpiäinen**

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The UArctic Magazine Shared Voices 2015

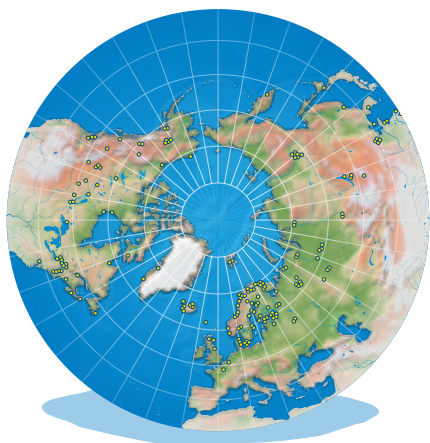
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University of Lapland  
Box 122, 96101 Rovaniemi, Finland  
secretariat@uarctic.org  
Tel. +358-16-341 341  
[www.uarctic.org](http://www.uarctic.org)

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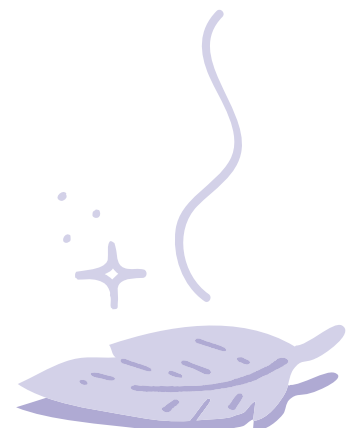
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## UARCTIC ANNUAL REPORT FOR 2014

in the Centerfold



“What everybody can be absolutely certain of is the Soviet Union's profound and certain interest in preventing the North of the planet, its Polar and sub-Polar regions and all Northern countries from ever again becoming an arena of war, and in forming there a genuine zone of peace and fruitful cooperation.”

Mikhail Gorbachev “Murmansk Initiative Speech” (Oct 1, 1987)

## Letter from the President

By **LARS KULLERUD**, President, UArctic



**T**he foundations of the current framework of international cooperation in the Arctic – perhaps most clearly manifested in the Arctic Council and other circumpolar organizations like the University of the Arctic (UArctic) – can be traced to a speech by then Soviet President Mikhail Gorbachev in Murmansk in 1987. In his speech, Gorbachev called for the Arctic to be established as an international ‘zone of peace’ and called on the Arctic states and other regional actors to cooperate on issues of scientific research and environmental protection. This call was taken up through the Rovaniemi Process in 1991 that established the Arctic

Environmental Protection Strategy, which in turn resulted in the creation of the Arctic Council in 1996. The International Arctic Science Committee was created in 1990 as part of the same process. UArctic, founded in 2001, and the Arctic Economic Council, founded in 2014, were both established on the initiative of the Arctic Council to complement its functions.

Those of us engaged in international cooperation in the Arctic have now enjoyed 25 years of active collaboration with our Russian colleagues and friends – a situation we now consider completely normal, but that was extremely rare during the Cold War. The region and the world as a whole have benefited

from this cooperation as evidenced in the drive behind the Stockholm Convention on Persistent Organic Pollutants (POPs), the focus on the role of the Arctic in global climate change, the unique position of indigenous peoples in the Arctic Council, regional demilitarization, coastal state cooperation through the UN Convention on the Law of the Sea, and joint ambitions for the safe and fair transportation and resource utilization.

The Arctic states have both the resources and instruments for

cooperation, and their peoples have the will. The wise stewardship of the North will benefit not just the Arctic but the whole world, and we can also be an important inspiration to others globally. This is particularly the case now, at a time when humankind needs to find a new way forward for future generations and the healthy stewardship of this unique planet.

Even as geopolitical insecurity elsewhere in the world creates tensions that influence the Arctic, we have continued with 'business as usual' – not

because we are ignorant of threats to cooperation, but precisely because of them. Our best way to ensure mutual understanding and focus on common interests is to maintain cooperation and keep an open dialogue. Through UArctic we have strived to create a common Arctic region and circumpolar identity among researchers, students and leaders. We will work with business and regional and national governments to ensure that the generation leading the Arctic in 2030 does not have to start over, but can continue on a platform of mutual understanding and partnership.

**“WE MUST  
CONTINUE  
TO MAKE THE  
ARCTIC A ZONE  
OF PEACE”**



Photo Rune Rydén

## Letter from the Vice-President Interregional Cooperation

By **MARINA KALININA**, UArctic Vice-President Interregional Cooperation,  
Vice-Rector of International Cooperation, Northern (Arctic) Federal University



**A**s the University of the Arctic is gathering in Russia for its 2015 Council meeting, we found it relevant to introduce the Arctic focus of Russia from the perspective of interregional cooperation and in the academic world. The vision of UArctic “An Empowered North – With Shared Voices” becomes especially important in the globalized world. Joint efforts are the key condition for future Arctic development whether it is cooperation between different stakeholders on national and international levels or between various fields of Arctic research. To highlight the importance of cooperation, the organizational structure of UArctic was enhanced with the position of Vice-President Interregional Cooperation to shape the circumpolar perspective in education and research with inputs from UArctic members in Russia, northern Europe and North America. Strengthening UArctic and promoting the collective views of Russian members, and broadening their voice within the organization, will be an essential task.

## “JOINT EFFORTS ARE THE KEY CONDITION FOR FUTURE ARCTIC DEVELOPMENT”

The focus on Russia is determined in no small measure by the vast presence of Russian educational and research institutions within UArctic. Russia is represented in the network by over 40 institutions, among them four federal universities and three research centres of the Russian Academy of Sciences. Their locations cover 22 cities in 15 regions of the Russian Federation. These numbers affirm the high interest in education and research in the North and in including the international dimension in member institutions' strategies.

Russian universities tend to benefit from international cooperation, striving to find new opportunities in common educational sphere through sharing resources and knowledge. These opportunities range from the promotion of institutions, branding, marketing and student recruitment tools to the production of joint courses and programs and joint scientific publications. Indeed, the success of the UArctic network as an organization is truly reflected by the success of each UArctic member, achieved through long-term cooperation and partnerships.

### ISAK TURI

I'm a student at the University of Tromsø where I study political science. I'm from a reindeer herding family, and originally from Kautokeino, Norway.

I've had the joy of working with other people from the North. I want to mention especially the EALLIN project (see page 14) of the Sustainable Development Working Group of the Arctic Council. In that project I worked with other reindeer herders from the Nordic countries and Russia. We exchanged experiences and saw opportunities and challenges common for the reindeer herding youth, and worked towards finding ways to build the capacity needed to strengthen our societies.

That experience reinforced my belief that cooperation will remain important, and the Circumpolar North has nothing to lose by cooperating across the national boundaries. Hopefully the future brings even more cooperation. We saw that education will be one of the most important motors for capacity-building; that it is vital to create institutions that promote education and knowledge in order to have societies that are sustainable in the North.

I also participated in a workshop with the UArctic Student Ambassadors, at the same time with the Arctic Frontiers conference in late January 2015. I am optimistic towards the future with institutions like UArctic. It enables more cooperation between the countries with an interest in the Arctic. I met people with good ideas for resolving issues ranging anywhere from energy policy to the survival of polar bears. With lessons learnt from each other, we will surely be able to deal with issues such as climate change and its effects on the world.

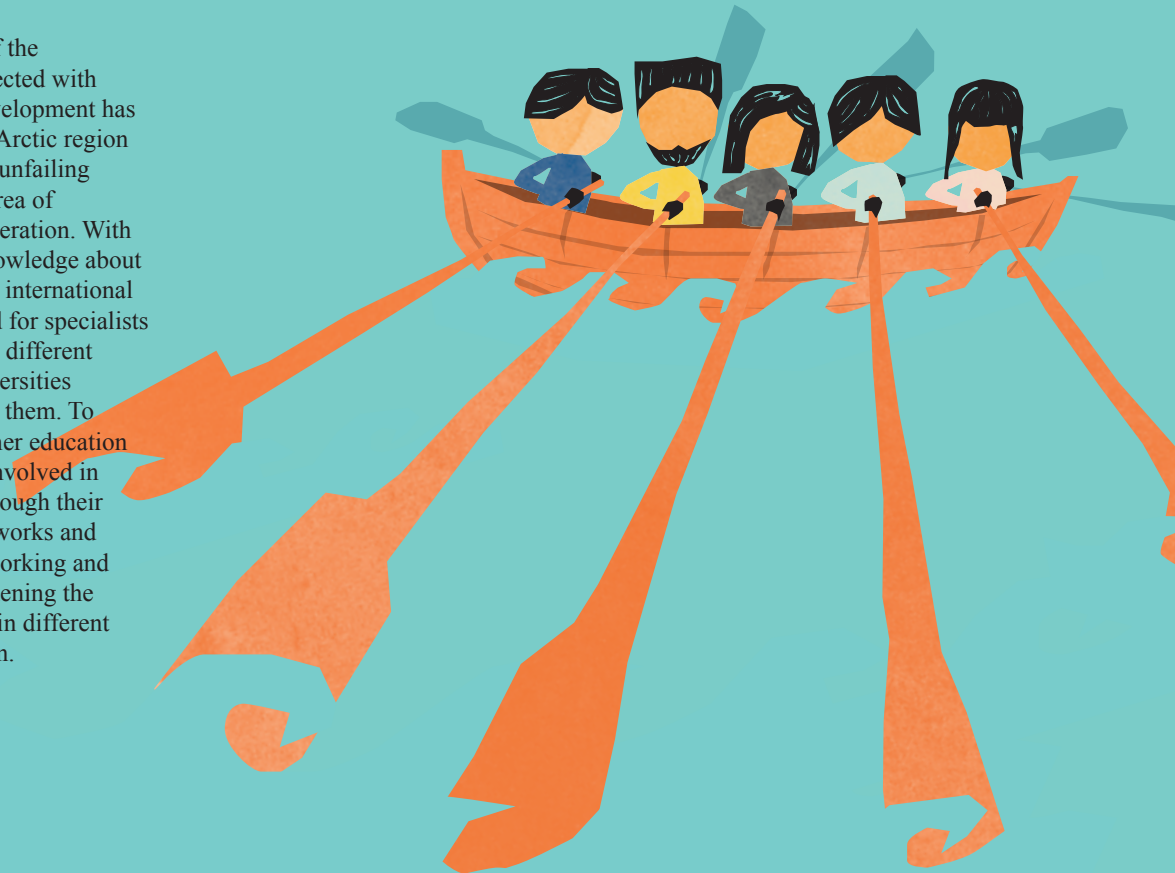
I believe that if you're in a position to leave for another country to work or study, you should go for it. There are so many different things to see and different people to meet. Seeing what other people do for a living, somewhere completely different from your own home, widens your horizons. Just talking to other people is good as well, but the real deal will have to be experienced, not learned from a book. For example, I can't imagine me being able to understand what Russia is like by reading – given the opportunity I'd rather go there to see it all myself.



# REGIONAL COOPERATION IN THE NORTH

By **MARINA KALININA**, UArctic Vice-President Interregional Cooperation, Vice-Rector of International Cooperation, Northern (Arctic) Federal University

**T**he complexity of the challenges connected with future Arctic development has transformed the Arctic region into a subject of unflinching interest and an area of multilateral international cooperation. With the increased interest, new knowledge about the Arctic is required from the international research community. The need for specialists capable of finding solutions in different fields is growing, and the universities have to be equipped to deliver them. To respond to this challenge, higher education institutions are getting more involved in decision-making processes through their participation in university networks and engagement in international working and expert groups, and by strengthening the voice of northern universities in different models of regional cooperation.





*“With the increased interest, new knowledge about the Arctic is required from the international research community.”*

Existing political frameworks and institutional mechanisms for international cooperation in the North are represented by the Arctic Council, the Barents Euro-Arctic Council (BEAC), and the Northern Dimension (ND). These initiatives identify priority areas in which more knowledge production for the sustainable development of the North is required. Thus, knowledge and competence exchange becomes a fundamental approach in building up international cooperation in the Arctic region.

The Arctic Council remains the most important dialogue arena to address issues of the changing Arctic. The Arctic Council states, observer states and permanent participants create a good platform for the research community with participation from universities in Russia, Scandinavia, North America and Asia. The Arctic Council Task Force on scientific cooperation aims at enhancing international research collaboration, as well as sharing data and results. Broadening connections between national research agencies will also promote joint Arctic research policy and support.

The Barents Euro-Arctic Council, created in 1993, is a perfect example of transborder cooperation on a people-to-people and institution-to-institution level. The BEAC Joint Working Group on Education and Research, in which higher educational institutions of Northwest Russia, northern Norway, Sweden and Finland successfully cooperate, has elaborated proposals for the Kirkenes Declaration 2.0 – the framework political document for regional cooperation in northern Europe. The proposal identifies the core areas in which joint actions are still needed to facilitate knowledge production in the North, such as mobility support, recruiting to public and private sectors, more transparency of national educational systems, traditional indigenous knowledge development, creation of joint research infrastructure, and research-based education.

The European Union Northern Dimension and its fundraising mechanisms create many opportunities for cooperation between universities in the Baltic Sea region and the Barents Euro-Arctic Region. The Northern Dimension Institute, under the joint coordination of Aalto University, Saint-Petersburg University of Economics and Northern (Arctic) Federal University, was encouraged by the ND Steering Committee to facilitate collaboration and partnerships in environment, transport and logistics, culture, public health and social well-being. The crucial instruments for this collaboration are the Kolarctic ENPI CBC (European Neighbourhood and Partnership Instrument, Cross-Border Cooperation) program, the Arctic Co-operation Programme of the Nordic Council of Ministers, and Horizon 2020.

The international organizations in the North do not just create political frameworks but also focus on global research challenges, including environmental protection and climate change, extractive industries, transportation and logistics, safety and security, energy efficiency, sustainable social and economic development, and humans in the Arctic. However excellent the political frames are, strong institutional mechanisms are required to deal with concrete tasks and goals. One of those is undoubtedly the University of the Arctic, the biggest university consortium in the North, with a mission to empower the people of the Circumpolar North by providing unique educational and research opportunities through collaboration within a powerful network of members. The model of decentralized governing and member-based contribution creates a solid basis for institutional capacity building and global initiatives.

The role of international cooperation for northern universities can hardly be overestimated, and their contribution to the strong and sustainable Arctic region will be constantly growing.

# PRIORITIES OF ARCTIC RESEARCH IN RUSSIA

By **ARTUR NIKOLAEVICH CHILINGAROV**, First Vice-President, Russian Geographical Society

**S**ocio-economic changes in Russia over the past two decades have strongly affected the Russian Arctic. Migration from the North, the increasing problem of providing northerners with housing in the central and southern parts of the country, and the steady growth of air travel rates have had a negative impact on the region's wealth. At the same time, these challenges have opened up new prospects for the socio-economic development of the Russian Arctic.

The necessity of coping with the large-scale political and economic changes in Russia at the end of the 20<sup>th</sup> century have also played a significant role in the formation of these prospects. Geography and overall conditions of Arctic exploration in the Soviet period have passed into history and turned into a starting point for a new era of Arctic research. Among the new areas of research are two main challenges which are connected with the renewed strategy of the development of the Arctic and the need for governmental support to implement this

strategy. These challenges are the Northern Sea Route and the sustainability of Arctic exploration and development.

The Northern Sea Route is the core element of the Russian Arctic development strategies, and one of the most important government initiatives in the Arctic region is directed to support it. The structure includes an icebreaker fleet, navigation and hydrographic systems, hydrometeorological monitoring, rescue ships, distant radio relay and space communications, and

aeronautical services. The Russian state ensures the effective operations and development of the transport system, and provides support to businesses dealing with transportation of goods and passengers. The future of the Russian Arctic is closely connected with and determined by the Northern Sea Route, and its development is also closely related to the exploration of natural resources in the Russian North.

The research conducted in the Arctic in various fields of natural sciences has accumulated a significant amount of data and information – to a certain degree even ahead of their possibilities to be used. First of all, this refers to the exploration of natural resources (including energy sources). In addition, the geographical research includes monitoring of hydrographic data for Arctic shipping support, and the theoretical and practical information about oceanographic, hydrographic and glaciological aspects of natural sciences is of particular interest. Russian scientists have achieved a high level of knowledge in applied sciences collected through many decades, and its maintenance and development has to remain the main priority at the moment.

Interdisciplinary research in the Arctic and interaction between natural and socio-economic sciences have now come to the fore. It is necessary to strengthen the role of different projects and programs as well as their value, and to collaborate between different areas of expertise to ensure the effective development of the Arctic region and a comprehensive strategy.

We should take into account that areas such as ecology, economics and law have a close connection with the region's geographical aspects. This has practical importance in creating the basis for the socio-economic development of the region and for evaluating new technologies which include not only the material production technologies but also processes for management, policy and decision-making.

The most important tasks for Arctic development include supporting indigenous peoples; the protection of ecosystems, flora and fauna; oil and gas production development and meeting environmental standards; and the development of energy-saving solutions and local businesses on the basis of self-sufficiency. Arctic challenges must be solved with the use of state regulation and the support of prioritized directions based on the results of Arctic research.

***“Interdisciplinary research in the Arctic and interaction between natural and socio-economic sciences have now come to the fore.”***



UArctic in Russia:

# BUILDING AN ENGAGED MEMBERSHIP

Communication and information exchange with Russian members is the most important activity of the UArctic Research Office. By establishing connection with institutions, we have a unique opportunity to learn more about their structures, educational programs and research profiles, and to deepen our knowledge of various Russian regions and the diversity of their natural resources, traditions and culture. Despite some difficulties with interacting with several regions, such as differences in time zones, we get a lot of positive energy by working with news and promotional material coming in from various cities of Russia, and seeing the increasing number and impact of institutions who are taking advantage of their UArctic membership. I would like to thank them all for their engagement and contribution to the development of our network and let some of our Russian members share their experiences.



By **OLGA KLISHEVA**, UArctic Research Office Manager, Northern (Arctic) Federal University

## Nikita Kuzin

International Mobility Coordinator,  
Ukhta State Technical University

**U**khta State Technical University has been a UArctic member for more than ten years.

The university has established close cooperation with UArctic partner organizations and is also a member of two Thematic Networks. Our students participate in UArctic educational programs, the Circumpolar Studies program the most popular of them.

Knowledge and professional skills developed over months of study in foreign institutions make our graduates attractive for Russian employers. USTU has taken part in different UArctic activities, including the Global Access workshop organized for Russian UArctic member institutions in Arkhangelsk in October 2014. Participation in this event helped our university discover new principles of student recruitment which is currently one of the most important and successful areas of our International Office.

## Elena Nikitina

Acting Director,  
Nenets Agrarian Economic  
Technical School

**T**hanks to cooperation within the UArctic network, students of Nenets Agrarian Economic Technical School have the opportunity to study outside the region and the country. NAETS' professors, students and administrative staff participate regularly in international projects. One of them is the Norwegian-Russian project "Peacepainting", in the context of which we prepared and presented in Norway our performance "The New Year Sun" based on Nenets tales. Of course, knowledge of foreign languages, especially English, is crucial: our students could not communicate internationally without it. Therefore, we created the English Club "WSSE" in which students of all courses and ages study enthusiastically not only the language but also the culture and traditions of other countries.

## Alexander Gordievskiy

Specialist of the International  
Cooperation Center,  
Tyumen State Oil and Gas University

**T**yumen State Oil and Gas University entered the UArctic network just a year ago. Our institution participates actively in UArctic activities and presents its profile on the UArctic website with information about programs, courses and summer schools as well as key research areas. In January 2015 TSOGU also joined the north2north program and sent the first application. In the near future we plan to activate our work in the UArctic Thematic Networks and establish close cooperation with Russian and international colleagues on a wide range of topics, from Arctic geology to social work and management. Tyumen State Oil and Gas University is one of the largest scientific and educational centers that can offer many cooperation ideas to partners in Russia and abroad.

# EALLIN: CREATING THE 'GOOD LIFE' FOR YOUNG REINDEER HERDERS

By **MIKHAIL POGODAEV**, Chair, Association of World Reindeer Herders  
and **PHILIP BURGESS**, International Centre for Reindeer Husbandry

**R**eindeer have always been and still are the foundation of reindeer herding peoples' lives. Reindeer provide people with shelter, food, clothing and security, and they are the foundation of peoples' cultures, languages, worldviews and economies. Obviously, the reindeer herding youth are the future of reindeer peoples everywhere, but they face an uncertain future: pastures are being lost wherever they are, and the full range of consequences and impacts of climate change is unclear. The conditions under which they practice herding today will likely be very different by the time they are middle-aged.



Photo Riccardo Pravettoni

***“For us, the reindeer is everything. If we lose the reindeer we lose our language, our culture, our traditions and the knowledge to move in the nature.”***

*Participant, EALLIN Jokkmokk 2013*

What kind of herding will the coming generations be able to practice? EALLIN means ‘life’ in the Sami language, and young herders want to emphasize that ‘life is good’ and they want to make it better, as there are many factors that are making life ‘not so good’. Trying to understand these kinds of questions was the goal of the Arctic Council EALLIN project, undertaken by the Association of World Reindeer Herders in cooperation with the International Centre for Reindeer Husbandry and other actors. The goal of the project was to bring the voice of the reindeer herding youth to the Arctic Council: the good, the not so good, and most importantly, what young herders want to see changed in order to bring their livelihoods into a future which the following generations will want to choose.

Through this project, over 160 young herders from different reindeer herding peoples had the opportunity to meet each other in twelve community-based workshops held in Norway, Sweden, Russia, China and Mongolia. Young herders were also engaged in a process of knowledge co-production with scientists and experts, and the hope is that the information derived from these workshops could lead to new research questions and projects in which monitoring change could continue and be further developed in a process between herders and scientists.

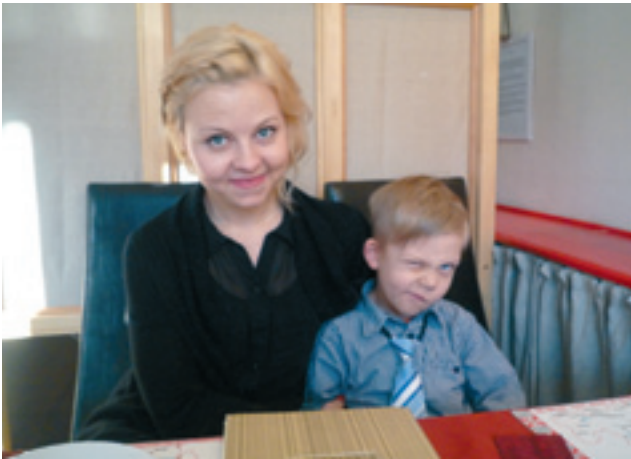
EALLIN revealed that young herders have a lot to say not only about the things that matter to them, but also about what should be done to make their lives better. There is a need for new tools to meet the present and future challenges in reindeer husbandry, and the exchange and co-production of knowledge are necessary for a better understanding of the rapid change in the Arctic and developing better adaptation strategies. Steps towards building capacity were seen to be the key if the youth are to thrive in traditional livelihoods such as herding.

In general, national education systems are not designed to cater for the unique demands of traditional nomadic livelihoods and to provide those disciplines that reindeer herders actually need. Distance education and online tools can offer possible solutions for herders’ education. The UArctic EALÁT Institute intends to deliver educational opportunities for reindeer herders and could be a tool to implement solutions for other reindeer herding regions as well, giving herders the possibility to continue in reindeer husbandry. EALÁT needs financial and scientific support to create systematic courses for reindeer herding youth on national and international level, as well as assistance from universities to develop tailored training programs.

Other key findings revolved around mental health, physical health and safety, access to technology, indigenous languages, traditional knowledge, education models adapted to nomadic peoples, predators, hunting, loss of pastures, support for young families, governance and ownership models.

The EALLIN Executive Summary was launched in collaboration with UArctic and the Prince Albert II of Monaco Foundation at a side event at the Arctic Frontiers conference earlier in 2015. The full and final EALLIN report was delivered at the Arctic Council Ministerial in Iqaluit, Canada in April 2015. More information at [www.eallin.org](http://www.eallin.org).





### INKA MAKKONEN

Last year I had a wonderful experience of doing my exchange studies in Russia with my five-year-old son Nuutti. I had been studying Russian for a year when a friend encouraged me to apply to Northern (Arctic) Federal University in Arkhangelsk to do the non-degree program "Diverse Arctic". There are some really good specialists in this area at NArFU, and it seemed like a good opportunity to improve my Russian language skills, so I was eager to go.

As I am from eastern Finland, I spent my childhood next to the Russian border and had visited Russia a couple of times, so going there wasn't a completely new experience. The only problem was organizing daycare for my son. The coordinator from the University of Lapland contacted the International Office of NArFU asking for help, and luckily they found a nanny for him.

My first impression was that people were really helpful, open, and taking care of me and Nuutti. For example, once we were waiting for a bus in the city center. It was freezing, and the bus did not show up for a long time. When it finally came, it was completely full. We couldn't wait for the next bus, so trying to get inside I just pushed Nuutti forward. Suddenly some old ladies yelled, "Little boy is here!", and Nuutti was immediately taken to the safe side of the bus. People were really interested in us and asked why I had decided to go there with a kid. I proudly answered that it was a really good decision.

Sometimes living in Arkhangelsk was challenging because only few people spoke English, but things got easier as my Russian improved. I suppose it was even more difficult for Nuutti – the only words that he knew to talk to the nanny were *da* (yes), *niet* (no) and *moloko* (milk). Nevertheless, to be a parent in Russia is quite similar to what it is like in Finland. In Russia it's normal to have only one day off per week, but we spent our free time very intensively: going to museums, shopping centers and the skating hall, eating Russian food, meeting other students from all over the world. Nuutti often played with his nanny's grandson and children on the playground. International students liked him very much as well.

A little piece of advice for those who are going to Russia: remember that everything is possible. If someone tells you that something is impossible, just ask another person or, even better, ask the director – it might even take you to the roof of the skyscraper! All in all we had a good time in Arkhangelsk. This is a city where you can do a lot of different things, depending on your interests. In addition, I really felt the warmth towards children and families in this city.

To encourage parents who are considering an exchange with children, I would say: just go! It's a really good opportunity to experience different cultures together with your child. I also believe it's a good way them to start learning new languages. For example, now Nuutti understands not only Russian but some basic English too. Of course, the adaptation takes some time, but children are usually really quick in it. You can always come back home if things don't work out, but it's definitely worth trying!



The book "International Arctic Petroleum Cooperation: Barents Sea Scenarios" by Anatoli Bourmistrov, Frode Mellemvik, Alexei Bambulyak, Ove Gudmestad, Indra Overland, Anatoly Zolotukhin is available for order at Routledge, 2015 – 320 pages, Series: Routledge Studies in Environmental Policy, [www.routledge.com/books/details/9781138783263/](http://www.routledge.com/books/details/9781138783263/)

The Arctic region contains large amounts of natural resources considered necessary to sustain global economic growth. It is unsurprising that it is increasingly susceptible to political, economic, environmental and even military challenges. In this situation, will Arctic states cooperate in the development of Arctic petroleum resources? This is what they declare, but the barriers to the cooperative development of these resources are intensifying, and the future is unclear. Here we report shortly about the results of a book project addressing a core question: what factors would need to fall into place for the cooperative development of Arctic petroleum resources?



# International Arctic Petroleum Cooperation: Barents Sea Scenarios

By **ANATOLI BOURMISTROV**, Lead of the UArctic Thematic Network  
on Energy in New Time, Professor, University of Nordland

The book is a result of a joint effort of the core group of Norwegian and Russian researchers directly involved in the Energy in New Time Thematic Network and researchers outside the network. It looks in detail at the preconditions and outlook for international cooperation on the development of Arctic petroleum resources, focusing especially on Norwegian–Russian cooperation in the Barents Sea towards 2025. While oil and gas resources are valuable, they are also expensive to extract, especially in a harsh climate frontier environment like the Arctic. Regional economies of scale can thus be decisive for project costs. Without Norwegian–Russian cooperation across the Barents Sea border, many such opportunities for economies of scale may be lost, and the development of the resources below the seabed will be less likely. The lower the price of oil and gas, the more acute this point becomes. Accordingly, cooperation may be both a possible outcome and a chosen strategy.

Applying a cross-disciplinary approach including geopolitical, institutional, technological, corporate and environmental perspectives, a team of Norwegian and Russian researchers offer the reader three scenarios as possible ways of thinking about the future of Norwegian–Russian petroleum cooperation in the Barents Sea towards 2025, taking the Murmansk Treaty signed by Norway and Russia in 2010 as the point of departure. The first scenario, *After You*, describes a situation in which unconventional oil and gas reduce the prices of oil and gas in global energy markets, and Norway and Russia are therefore hesitant to make the first move in making petroleum-related investments in the region. In contrast, in the scenario *Parallel Play* oil and gas prices are relatively high but there is a freeze in political relations leading to the non-cooperative development of the Barents Sea. Finally, the scenario *Let's Dance* envisages a possible future where a breakthrough has been made in non-carbon energy sources. In spite of relatively good cooperation between Norway and Russia, only a few big gas projects are developed in the Barents Sea.

Through these scenarios, the book improves understanding of the challenges and opportunities for Arctic petroleum resource development and promotes further consideration of the possible outcomes of future cooperation. In this sense, the book should be of interest to students, scholars and policy makers working in the areas of Arctic studies, oil and gas studies, energy security, global environmental governance, environmental politics and environmental technology.

# Nordic Cooperation: Relevant for Everyone

By **NICOLAI STAMPE QVISTGAARD**, Senior Adviser, Nordic Council

**N**ordic cooperation is currently undergoing a comprehensive restructuring through reform work, which aims to strengthen and improve the effectiveness of the Nordic Council. A new President is elected for the Nordic Council each year, and in 2015 Höskuldur Þórhallsson from Iceland was chosen for the position.

“Nordic cooperation must be made even more visible than it is today. Most importantly, the political work must come first and made relevant to the Nordic and Arctic citizens so that everyone is included. Whether you come from a Scandinavian metropolis or a tiny island or a remote Arctic region, the cooperation is also related to you and your family. We work to make living conditions better and to make mobility easier across borders if, for example, you want to work or get an education in another country or start a family there,” says Höskuldur Þórhallsson.

Ever since 1952, when the Nordic Council was established, the members of the Council have worked to improve the living conditions for the Nordic and Arctic citizens. The five member states, Denmark, Finland, Iceland, Norway and Sweden, and the three autonomous areas of the Faroe Islands, Greenland and Åland all have members in the Council – members who are also part of each national parliament. The 87 Council members gather several times a year to discuss and share knowledge and experiences, and to make recommendations to the Nordic Council of Ministers.

New strategies and solutions are being developed in the fields of culture, education, welfare, civil rights, environment, nature and trade. At the annual Session, these recommendations and suggestions will be discussed and hopefully approved in order to be implemented in further political work in the individual countries. It is no secret that Nordic cooperation is respected; many countries and regions in the world have their eyes on the Nordic countries and the

*“Whether you come from a Scandinavian metropolis or a tiny island or a remote Arctic region, the cooperation is also related to you and your family.”*

Arctic and consider the cooperation to be something very admirable. Nordic cooperation is unique, and it shows that in spite of different political views and national diversity, we have a common cultural heritage and will work to strengthen democracy, freedom and equality for all. However, we can be even more effective and stronger.

“I will do my best to see that the reform work is going in the right direction. It is extremely important. People don’t fully realize what Nordic cooperation is all about, but at the same time, more and more people want even stronger cooperation so that the living conditions in the Nordic countries and in the

Arctic become even better. And that is exactly what the Nordic Council and its members are working towards – as we have always done,” says Höskuldur Þórhallsson.

“Even now you can see that Nordic cooperation has become more dynamic with strong opinions. We are not afraid to look beyond our own backyard and try to have an effect when there are international conflicts and negotiations going on. The fact is that we have influence and we use it, and this is the path we must continue on: maintaining our international cooperation, and keeping Nordic cooperation as a role model for the rest of the world.”

Photo Norden.org



Höskuldur Þórhallsson is the elected president of the Nordic Council and member of the Icelandic parliament, Althingi.

# US ARCTIC COUNCIL CHAIRMANSHIP: OUTLINING GOALS AND PRIORITIES



**T**he United States is honoured to be chairing the Arctic Council for the second time since the forum's founding in 1996. In my role as US Special Representative for the Arctic, I lead US Arctic diplomacy efforts for the State Department and serve as Secretary of State John Kerry's coordinator for the US Arctic Council chairmanship. I have an extraordinary team of Arctic professionals to help me advocate for a variety of issues.

Our chairmanship theme, *One Arctic: Shared Opportunities, Challenges, and Responsibilities*, reflects the US commitment to a well-managed Arctic, a region highlighted by exceptional international cooperation. In partnership with the other Arctic States and Permanent Participants, the United States is proud to initiate wide-ranging work to protect the marine environment, conserve Arctic biodiversity, improve conditions in Arctic communities, and address impacts of the rapidly changing Arctic climate.

The United States is an Arctic nation because of Alaska, so the needs of Alaska and input from Alaskans were important in defining our goals for our Arctic Council chairmanship. The Arctic Council is a consensus body and the US chairmanship priorities require agreement by all eight member states to move forward. During our 2015-2017 chairmanship, we aim to focus on three primary initiatives.

## IMPROVING ECONOMIC AND LIVING CONDITIONS

Today, a rapidly warming Arctic is one of a range of factors threatening traditional ways of life that have endured for generations. Arctic communities face numerous challenges to the health and well-being of their citizens, along with concerns over food and water security, to name just some of the issues. Under the US chairmanship, we are prioritizing work in the Arctic Council on renewable energy and water security as well as telecommunications infrastructure by pursuing innovative technologies to address the significant challenges faced by remote Arctic communities. The US State Department is also helping to foster international scientific collaboration on key Arctic issues including water, energy, health and infrastructure through a new initiative under the Fulbright Program that will involve scholars from all Arctic Council nations.

***“One Arctic: Shared Opportunities, Challenges, and Responsibilities reflects the US commitment to a well-managed Arctic, a region highlighted by exceptional international cooperation.”***

## ARCTIC OCEAN SAFETY, SECURITY AND STEWARDSHIP

The acceleration of maritime activity in the Arctic increases risk in an already harsh and challenging environment. U.S. chairmanship priorities include building upon existing preparedness and response programs; enhancing the ability of Arctic states to execute their search and rescue responsibilities; and emphasizing safe, secure, and environmentally sound shipping as a matter of high priority. To ensure that future maritime development avoids negative impacts, particularly in areas of ecological and cultural significance, the Arctic Council is also continuing its work towards a network of marine protected areas and enhanced international cooperation in the Arctic Ocean. Ocean acidification is one of the most urgent issues facing the world’s ocean today, and the Arctic Council is responding by supporting research to improve the capability to monitor and track acidification in the Arctic Ocean.

Photo US Department of State



By Admiral **ROBERT J. PAPP, JR.**,  
US Special Representative for the  
Arctic, US Department of State

## ADDRESSING THE IMPACTS OF CLIMATE CHANGE

It is imperative that we address the impacts of climate change in the Arctic now before it is too late. Glaciers and land-based ice sheets in the Arctic are decreasing, Arctic coastlines are eroding, and permafrost is thawing across the region, threatening infrastructure and utility systems. We know that changes in the Arctic are not isolated to the region but can impact the rest of the world; likewise, what happens in the rest of the world can impact the Arctic. The impacts of climate change affect the Arctic and the many people, wildlife and plants that depend on the region for survival.

The United States recognizes that we need to reduce black carbon emissions (soot) and methane emissions, which disproportionately impact the Arctic, if we care about the future of the Arctic and its people. The Arctic Council is addressing the impacts of climate change by facilitating cooperation on action to reduce black carbon and methane emissions.

The Arctic Council activities will also seek to enhance the ability of communities and ecosystems to adapt to changes by providing access to resilience tools such as sea ice prediction and advanced Arctic storm models. Finally, to better understand and effectively address climatic impacts, the Council will advance foundational Arctic climate science by promoting the development of climate change indicators and high-resolution mapping.

We are all challenged today to ensure we are ready to meet our responsibilities in the emerging frontier of the Arctic. While various parts of the Arctic may differ from one another, we’re all still part of *One Arctic*. The United States looks forward to ensuring a successful US Arctic Council chairmanship including the accomplishment of goals and priorities that will benefit the people of the North and the Arctic itself.



# *Student and Researcher Mobility in the European Arctic*

By **RISTO E.J. PENTTILÄ**, CEO, Finland Chamber of Commerce and **EERO HOKKANEN**, Arctic Advisor to the CEO, Finland Chamber of Commerce

**T**here are more cities, more universities and more transport connections in the northernmost parts of Norway, Sweden and Finland than anywhere else in the Arctic region. Yet student mobility between these countries is at a surprisingly low level. What should be done? There are small steps and big leaps to be taken.

A recent report on sustainable Arctic growth presented four recommendations to the governments of Norway, Sweden and Finland. It is probably no surprise that one was the creation of “one pool of talent and labour” for the Scandinavian Arctic. The other three recommendations were the creation of one regulatory framework, one long-term transport and infrastructure plan, and the realization of one voice in Arctic matters.

Most people probably think that “one pool of talent and labour” already exists in these three Nordic countries. After all, the agreement on a common Nordic labor market was signed over sixty years ago in 1954. Sadly, this is not the case. Over the years numerous obstacles to the free movement of people, services and products have been created in the Nordics. Some of these obstacles have been unintentional, some of them outright protectionist. An example of the former is the implementation of EU regulation: since each country implements EU directives in slightly different ways, the final result is not “one regulatory system” but (in this case) three slightly different systems. An example of the latter are vocational and academic qualifications. One would think that a Finnish electrician could simply apply for a job in Norway, but a great number of professions, such as that of an electrician, are protected by national legislation. The result is that a Nordic labor market works well in theory but not in practice.





Risto E. J. Penttilä was the Finnish member of a working group set up by the Prime Ministers of Finland, Norway and Sweden to identify concrete ways of boosting sustainable growth in the North through tripartite cooperation. Eero Hokkanen was Secretary of the working group. The final report of the Working Group called "Growth from the North" was delivered to the Prime Ministers in January 2015 in Tromsø, Norway, and can be read in full on the Finnish Government's website: [valtioneuvosto.fi/en/article/-/asset\\_publisher/-kasvua-pohjoisesta-raportti-julkaistu-tromssassa](http://valtioneuvosto.fi/en/article/-/asset_publisher/-kasvua-pohjoisesta-raportti-julkaistu-tromssassa)



Creating one pool of talent and labour should not be an impossible task for the Nordic countries. We share a common set of basic values on which we have built a successful Nordic welfare model, and about 60 years ago we were at the cutting edge of regional economic cooperation with the introduction of a common labour market and the Nordic Passport Union. Yet border obstacles between the Nordic countries and uncoordinated education and qualification standards in various professions still hinder regional economic development in the High North.

It is clear that we have lost the momentum that we once had in regional economic cooperation, and this loss hits us hard at a time when the economic focus is moving northwards in many fields important to our national well-being. Fishing, the petroleum industry, tourism, mining and the development of Arctic technologies all depend on the predictable regulation of their business environments and qualified workforce located reasonably nearby.

What can Finland, Norway and Sweden do together in the field of education to regain their status as trailblazers in regional economic cooperation and to achieve sustainable growth from the North?

Firstly, their governments can harmonize the education and qualification standards in all regulated professions. A system for mutual recognition of professional and vocational qualifications was established in principle decades ago, but its full implementation is unfortunately still lacking. If we truly believe in the concept of a common Nordic labour market, our public authorities should trust that the neighbour's education system produces professionals as good as their own, and our politicians can stop eloquent speeches at the Nordic Council.

Secondly, the universities can make better use of existing Nordic and Arctic exchange networks such as Nordplus, north2north, Nordic Five Tech and Nordtek. Although the majority of universities in Finland,

Norway and Sweden are part of at least one Nordic or Arctic exchange network, the number of students moving between them is distinctively low. For example, in 2013 only 25 students from Norwegian universities and 61 students from Swedish universities studied in Finland. In comparison, in the same year 1,423 students from Germany, 115 from Slovakia and 332 from the Netherlands chose to study in Finland. Many study programs, especially in technical universities and business schools, should include one semester in another Nordic or Arctic university.

Thirdly, different public-private arrangements should be tried and tested to establish joint Master's, PhD and research programs as well as part-time joint professorships in the areas of important drivers of growth in the North. Benchmarking innovation programs and supporting closer cooperation between academia and the private sector are integral parts of finding new growth.

If we are serious about promoting sustainable growth in the Arctic, we should be serious about promoting the mobility of students, teachers and researchers who are interested in the challenges and opportunities that the northernmost part of the world offers. And even more importantly, we should be serious about creating a single regulatory framework for labour, products and services. The Sami people have lived in a borderless North for centuries – it is time for the rest of us to follow in their footsteps.

And finally, while harmonizing professional qualification standards and boosting student and researcher mobility might be easiest among the Nordics, we should continue striving towards similar goals on a wider, circumpolar level as well to secure sustainable growth in the Arctic. If Nordic economic cooperation (remember Nordek) gave way to bigger plans once, it can certainly do it again.

Arctic Economic Area, anyone?



## 24 Student Profile

### MIKKEL BUE LYKKEGAARD

In the autumn of 2014, I was working as an intern with the UArctic Thematic Networks Office at the University of Oulu in Oulu, Finland. The experience has had a great impact on my life, not only as a student and soon-to-be engineer but also as a person in general. Most importantly, I got to get closer to my Finnish friend, who is now my girlfriend. That alone made it worthwhile.

I also expanded my professional network greatly, and I now see Finland as a possible platform for my future career as an Arctic environmental engineer. More specifically, I have come to hope to somehow examine the impact of the mining industry on the Arctic environment. Upon my return to the Technical University of Denmark (DTU), which is my home institution, I approached my studies with renewed energy and determination, now having a clearer vision of where I want to go.

I have been to Finland thrice since the internship, and the country is still growing on me. I love the nature, with all the forests and lakes and the slices of actual wilderness, which is something that is virtually absent in my home country, Denmark. I enjoy the courage and mischievousness of Finnish art and music. Most of all, I feel at home in the wonderfully contradictory mixture of stern honesty and dark humour which I feel that the Finnish culture embodies. Finland feels like a place where I could develop both personally and professionally, and since my stay in Oulu, it has entered my realm of possible futures.

I am continuously in touch with my former colleagues from the UArctic Thematic Networks Office and the rest of the staff at the Thule Institute, and I have been involved in several projects through that channel since I finished my internship, one of which is ongoing as I am writing this. I have found kinship and inspiration in the UArctic organization and in the Arctic scientific community as a whole, and I feel like the internship was only the beginning of a greater adventure. I am still not sure exactly where it is going to take me, but I am almost certain that it is going to be somewhere cold and wild.



# FOR THE NORTH

An Arctic and Northern Science and Art University

# FOR THE WORLD



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A photograph of two people in winter gear climbing a snowy mountain peak. They are holding a long metal pole. The background shows a clear blue sky and snow-covered mountains.

**PURSU** *the*  
**EXTRAORDINARY**

**UAF** UNIVERSITY OF ALASKA FAIRBANKS  
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The University of Alaska Fairbanks is accredited by the Northwest Commission on Colleges and Universities.  
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# UArctic Annual Report for 2014

The University of the Arctic (UArctic) is a cooperative network of universities, colleges, research institutes and other organizations concerned with education and research in and about the North. UArctic builds and strengthens collective resources and collaborative infrastructure that enables member institutions to better serve their constituents and their regions. Through cooperation in education, research and outreach we enhance human capacity in the North, promote viable communities and sustainable economies, and forge global partnerships.



## UArctic: An Engaged Member Network

**U**Arctic's vision is "An Empowered North – With Shared Voices," underlining that all northerners must have a say in their own future and that of the region as a whole. Our mission to "Empower the people of the Circumpolar North by providing unique educational and research opportunities through collaboration within a powerful network of members" reinforces that aim.

In 2014, we continued to strengthen our role as a network organization, developing tools and activities that help our members to better collaborate. The cooperative activities include issue-based networking through Thematic Networks and Institutes, supporting student and staff exchange across all areas of the network, developing and promoting northern-relevant education programs, and strengthening our members' role in Arctic research.

UArctic renewed its organizational structure in 2014. UArctic is now led by a President and five Vice-Presidents (Academic, Research, Organization, Indigenous, Interregional Cooperation) who manage their relevant areas of responsibility and activities. The Board of Governors oversees UArctic, while the Council remains the key representative body for our members to participate in and shape the organization.



See back cover for full list of members



Map / © University of the Arctic 2015, Veli-Pekka Laitinen, Puisto Design & Advertising and Hugo Ahlertius, Nordpil












































































































UArctic's website renewal was completed in 2014. The new site is now much more accessible and offers greater functionality and flexibility to support networking and cooperation among the UArctic membership. Individual profile pages highlight the particular expertise and focus areas of our members, as well as links to their education offerings, recent news, student experiences, and much more. The renewed Study Catalogue features an easily searchable index of northern-related courses and study programs. The UArctic Field School Calendar, developed together with APECS and UNIS, highlights upcoming field and short-courses in the Circumpolar North.

Launched in 2014, UArctic's Student Ambassador Program provides an excellent opportunity for students from UArctic member institutions to join a select group of student leaders who engage in representing UArctic at events and functions, meet to discuss important Arctic issues, and communicate with fellow and prospective students.

The appointment of UArctic Vice-President Interregional Cooperation has seen much stronger engagement with the Russian members of the network than ever before. The re-launch of the Russian-language version of the UArctic website and ongoing development and translation has further strengthened information sharing between UArctic and Russian members.

The north2north+ feasibility study, a two-year project in 2014-2015, examines options for a comprehensive structural mobility program to serve the circumpolar region. The future north2north would address needs for academic mobility including shorter-term exchanges for staff and graduate students, and partnerships with industry and enterprise, as well as serving the region's indigenous peoples. In parallel to these developments, Denmark, Greenland and the Faroe Islands have become full participants in the north2north program after a very successful 'MobilityDK' pilot.

# Thematic Networks & Institutes

	Year established	Bachelor courses	Master's courses field schools summer schools	PhD courses field schools summer schools	Joint graduate programs with enrollment	Joint graduate programs under development	Research projects	Publications / scientific articles (peer reviewed)	Intl. conferences, workshops	Other outreach (events, online)	Mobility activities	Art exhibitions
												
Arctic Engineering	2008	-		-	-	-	-	-		-	-	-
Arctic Extractive Industries	2012	-	-		-	-						-
Arctic Fisheries and Aquaculture	2010	-	-	-	-	-	-	-		-	-	-
Arctic Geology	2012	-		-	-	-		-		-	-	-
Arctic Law	2011	-	-	-	-	-	-				-	-
Arctic Sustainable Arts & Design	2011	-	-	-		-	-				-	
Commercialization of Science and Technology for the North	2014	-	-	-	-	-	-	-	-		-	-
Communicating Arctic Research	2012	-		-	-	-		-		-	-	-
Digital Media and Media Arts	2008	-	-	-	-	-	-	-	-		-	-
Distance Education and e-Learning	2008	-	-	-	-	-		-		-	-	-
Energy in New Time	2008	-				-					-	-
Environmental Impact Assessment of Industry Contaminate Areas	2010	-	-	-	-	-		-				-
Environmental Training and Education for Sustainable Development of the Arctic	2011	-	-	-	-	-	-	-			-	-
Geopolitics and Security	2009	-	-		-	-	-			-	-	-
Health and Well-being in the Arctic	2005	-									-	-
Indigenous Arts and Crafts	2007	-	-	-	-	-	-	-	-	-	-	
Local and Regional Development in the North	2006	-	-	-	-	-	-				-	-
Managing Small and Medium Sized Enterprises in the North	2011			-	-	-						-
Natural Hazards	2013	-	-	-	-	-	-	-		-	-	-
Northern Food Security	2009	-	-	-		-			-			-
Northern Governance	2007	-		-						-	-	-
Northern Tourism	2008	-	-	-	-		-		-	-	-	-
Permafrost	2013			-	-	-	-	-			-	-
Polar Ice, Climate and Land Dynamics	2012	-	-	-	-	-	-	-	-	-	-	-
Social Work	2006	-		-		-			-		-	-
The Verdde	2005		-	-	-	-	-	-	-			-
UArctic EALÁT Institute	2009	-		-	-	-				-	-	-
UArctic Institute for Arctic Policy	2008	-	-	-	-	-	-	-			-	-
UArctic Institute: The Northern Research Forum	2012	-	-	-	-	-	-	-		-	-	-
World Images of Indigenous Peoples of the North	2006	-	-	-	-	-	-	-	-		-	-

Thematic Networks pending approval from Council in 2015: UArctic World Ensemble, Arctic Telecommunications and Networking, Model Arctic Council (MAC), Northern Nursing Education, Medicine and Psychology in Occupational Health, Teacher Education for Social Justice and Diversity

## UArctic Facts

**Founded in 2001**  
as an initiative of the Arctic Council

**181 Members**  
Higher education institutions and other organizations, from the Arctic and non-Arctic regions

**33 Thematic Networks**  
and **3 Institutes**

**Over 250 program** and **500 course listings** in the online Study Catalogue

**Contact** UArctic International Secretariat  
secretariat@uarctic.org

## 2014 Meeting Summary

**Board meeting** in Umeå, Sweden (Umeå University, April 2014)

**Thematic Network leaders meeting** in Helsinki, Finland (April 2014), in conjunction with Arctic Science Summit Week

**Council meeting** in Prince George, BC, Canada (University of Northern British Columbia, May 2014), in conjunction with the International Congress of Arctic Social Scientists

**Rectors' Forum** in Akureyri, Iceland (University of Akureyri, May 2014)

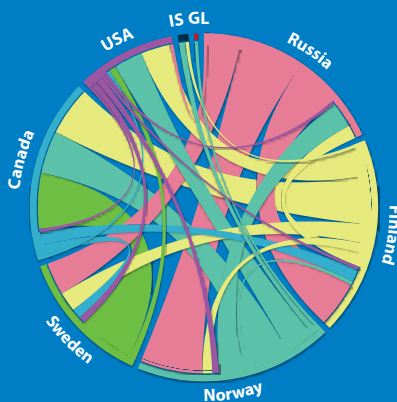
**Board meeting** in St. John's, Newfoundland, Canada (Memorial University of Newfoundland, November 2014)

**European Association for International Education (EAIE) conference** in Prague, Czech Republic (September 2014). Hosted UArctic member stand for participating member partners and organized the session "Arctic spotlight: innovative models for collaborative education and research"

**Workshop for Russian members of UArctic** on developing and promoting international education programs in Northern (Arctic) Federal University, Arkhangelsk, Russia (October 2014)

## north2north 2014 Student Mobility

	Out	In
Russia	44	13
Finland	38	20
Norway	34	24
Sweden	19	21
Canada	8	46
USA	7	22
Iceland	0	3
Greenland	0	1
<b>Total</b>	<b>150</b>	<b>150</b>



The width of the country bars correspond to the number of students.

## MobilityDK Student/Teacher/ Researcher Mobility

Pilot mobility program 'MobilityDK' operated in 2013-2014, with most exchanges taking place in 2014, and is being integrated into north2north from 2015 onwards.

	Out	In
Denmark	5	5
Greenland	12	3
Faroe Islands	1	2
<b>Total</b>	<b>18</b>	<b>10</b>



The Korea Maritime Institute (KMI) is a government-affiliated research organization under the umbrella of the National Research Council for Economics, Humanities and Social Science (NRCS) located in Busan, Republic of Korea. Since its establishment in 1984, KMI has been a major think tank in the development of national ocean and fisheries policies including shipping and logistics, port development, coastal and ocean environment management, maritime safety and security, and fisheries affairs. KMI became a non-Arctic member of UArctic in 2014.

NETWORKING WITH NON-ARCTIC ORGANIZATIONS:

# NEW PARTNERSHIPS FOR NEW FRIENDSHIPS

By JUSTIN (JONG DEOG) KIM, Head of Polar Policy Research Center, Korea Maritime Institute

In 2013 the Kiruna Ministerial Meeting approved six new nations as observers in the Arctic Council. Of the six countries, five are located in Asia. For the first time in the history of the Arctic Council, countries outside of Europe and North America have become partners. Such a move illustrates how Arctic issues are now a global interest. It can also be assessed as an attempt to tackle the new challenges faced by the Arctic region through a more widespread cooperation.

On the other hand, the increased number of observers and participation from Asian countries carry another opportunity. Although the Asian observer states have varied interest in the Arctic, I think it is yet difficult to state that these countries have a profound understanding of the Arctic region. Moreover, even the Arctic states have differing views on the new observer states. It is one of the vital assignments that such a gap between the regions be narrowed.

Several of the Asian observer states in the Arctic Council have been conducting scientific research activities for quite a long period at the other pole – the Antarctic. These countries have been operating

scientific stations, possess infrastructure such as icebreakers, and have the potential to contribute scientifically to the challenges faced in the Arctic. From shipping and operations to monitoring and observation technology, these countries already possess cutting-edge environmentally friendly technology which is currently needed in the Arctic region. How these capacities are utilized for a sustainable Arctic can shape the future of the region differently.

Korea is currently in the policy developing phase to solve actual problems through cooperation and to build trust in a shared vision for the Arctic region. As one of the efforts, the Korea Maritime Institute together with UArctic is launching a new type of mobility program, the Arctic Academy, that will reinforce exchange among students in the Arctic and non-Arctic regions. It will be a stepping stone for young generations of the two regions to understand and share their visions of the Arctic. The socio-economic and cultural diversity of the Arctic combined with the capacity of Korea will result in new levels of cooperation in the next generation that can lead to new friendships beyond the partnerships in the future.

By **MICHAEL BROWN**, Fulbright Scholar,  
University of Washington/Arctic Centre,  
University of Lapland

# FULBRIGHT ARCTIC

## *A Welcome Initiative*

**T**raditionally the United States has attracted criticism as being something of an Arctic laggard; that it treated its Alaskan territories as more of a backwater than an opportunity, and had little interest in the many cooperative trends in Arctic politics. Arctic issues seldom seemed to filter back to distant Washington. However, it is clear that in the lead-up to America's chairmanship of the Arctic Council, the federal government has been paying more attention, and the new priorities and initiatives seem much more progressive than before. Stewardship is the new term for America's role in the Arctic, and this means more international cooperation, more room for indigenous inclusion, more focus on local communities and well-being, and so on.

It would be easy to dismiss it as mere rhetoric and hype for the chairmanship, but there are some signs that this increased interest in the Arctic is becoming institutionalized, starting with President Obama's new executive order for a steering committee on interagency coordination on the Arctic to solve the cross-cutting and competitive issues that agencies had before. It is a slow start but a promising one. It would be nice to see a real Arctic-focused budget and some more concrete and extensive infrastructure proposals, but American policy makers are clearly becoming aware of Arctic issues, and changes are being made. Like all issues it has the risk of riding down the other side of the popularity curve, but with some concerted and sustained effort it may become a more important issues area with some teeth to it and more policy coherence.

One promising signal is that the Fulbright program, of which I am a current participant, recently released its Fulbright Arctic Initiative with funding to bring Arctic researchers together. Four American scholars and one scholar from each of the other Arctic states will go on exchanges lasting into summer 2016, and meet to exchange their findings and policy recommendations on themes ranging from water and energy to infrastructure and health. This is an important step. First, it provides an excellent opportunity for American scholars to build on their Arctic expertise abroad. In my experience, American scholars tend to focus on Alaska, but as the Arctic is a region facing similar challenges in different countries and cultures, it is important to exchange information on approaches and ideas. Second, it shows other Arctic states that the United States is getting more serious in its involvement in Arctic issues. Our participation has been lacking relative to other states, and for a global superpower it is a waste and does not help to build trust with our Arctic neighbours.



*"The initiative provides an excellent opportunity for American scholars to build on their Arctic expertise abroad."*

It is hard to tell if all this will last or turn out in a positive way. Cooperation and stewardship have as much the makings of buzzwords as actual goals, but the Fulbright Initiative is a step in fulfilling those responsibilities by exposing researchers to each other and to other institutions, and by further raising awareness of Arctic issues in the United States.

## MICHAEL BROWN

My experience in Rovaniemi, Finland for the past seven or so months has been quite illuminating both on a personal and academic level. Personally speaking, living here and adapting to the differences (it's quite apart from sunny California or even rainy Seattle) has been empowering in many ways. Essentially, you are faced with two choices as a student here: you can stay in the exchange network bubble and spend your time in apartments, shunning the weather and the dark, or you can get out, establish yourself a network, get to know Finland and its people (as this place is as Finnish of an experience as you can have), enjoy the chance to be outdoors, and take advantage of as many opportunities as you can. I have found this second option to be much more rewarding. It would have been very easy to stay at the local student residence all the time and try to relive my earlier college experiences, but I consciously decided not to.

The result is strong professional and personal contacts here, and some strong grown roots. It may seem an out-of-the-way place, but I feel as if I could return here and have opportunities, and that is something that I am strongly considering now. I've come to really enjoy the lifestyle that you can enjoy in Rovaniemi, with its easy pace and welcoming people. No doubt, even though I grew up in the asphalt ocean of southern California and have lived in Seattle's concrete jungle for a while, I will experience some culture shock returning to being around that many people and that urban ignorance of what lies outside and around.

On an academic and professional level I think I can treat my year at the Arctic Centre of the University of Lapland as something of a free primer on academia beyond being a student. Of course, I took some classes and through those was introduced to some fine experts on the local area and the wider Arctic, but I also got excellent help in learning the process to getting an article published (ongoing, it's not a nice process necessarily) and an insight into an academic career. I will hold an ongoing interest in Arctic issues and have a personal insight into the perspective of some of the tenants of the Arctic for the rest of my career – of that I also have no doubt.

For the future, I have to return home in the short term to work and see my family, but I am still interested in continuing my education with a Master's degree in comparative law at the University of Lapland.

Finland has left an impression on me and I want to come back, should the situation allow.





### INGRID-SOFIE TINDVIK

At my home university in Norway, Nesna University College, I have studied sports and personal training. In my first year I went on an exchange to Bali, and this probably laid the foundation for my interest in studying abroad even more. In 2013 I went to Brazil for a semester, and after that, through the north2north program to the University of Alaska Anchorage.

I was unsure what I wanted to do to get the last credits for my degree. One day I was waiting to see one of the counselors and noticed a shelf with several brochures. A wolf on one of them immediately caught my attention, so I picked it up and brought it to my counselor. Luckily she was going on a field trip to Alaska, and was more than willing to help me get there too. After several emails to UAA, talks with the staff, and a lot of help from my counselor, the north2north program and UAA, I got admitted and was suddenly sitting on a plane on my way to Alaska.

When I arrived in Anchorage my first thought was how similar the nature was to Norway. But with a closer look and experience I discovered that everything in Alaska is bigger (whooping surprise there) and wilder. If we were to put the two countries in a family perspective, Alaska would be the big rugged brother and Norway its little sister. The people of Anchorage also have a laid-back attitude, and going straight from a weekend of hiking in the mountains to a fancy restaurant in the same clothes is no big deal. Another striking difference is how outgoing everyone is: waiting at a bus stop I can get into a conversation with a complete stranger, exchange stories and never see that person again.

I am so grateful I got to experience a semester in Alaska. Even though I can vaguely remember some difficulties getting everything ready, it's all forgotten now and overrun by positive experiences. The highlights of my stay were hiking and kayaking, and spending three weekends out in the wilderness. Standing on top of Fort McGilvray in Resurrection Bay looking at the sunset over the mountains is a sight I will never forget. I never had any real problems, but even though I think my English is rather good I sometimes felt like I didn't completely keep up with everything (especially the lingo) in my lectures. But my professors and my classmates were more than willing to help me.

I think all my exchange semesters have helped me understand more how the world really works, and how different but at the same time similar we are even though we come from different parts of the world. But the more I study and the more I travel, the more questions I come home with, and my thirst for exploring is bigger than ever.

If you get a chance to go abroad to study, do it! I know it can be scary to leave a comfortable home, family and friends, but this is our time to get out and explore, learn new things, and get to know new people. Time will come when we have steady jobs, payments, kids and a hundred reasons not to go wherever we want. Our studies give us a perfect opportunity to go abroad and explore!


*“The similar patterns of development and change of the Arctic materialized exceptionally in the course of the lectures, student sessions and excursions.”*

# Extractive Industries *PhD Course in Southeast Siberia*

**U** Arctic's Thematic Network on Extractive Industries arranged a PhD field course in November 2014 in cooperation with North-Eastern Federal University (NEFU). Our group consisted of nine PhD students and six teachers, as well as an incredible group of local organizers. The course was organized at the Technical Institute NEFU in Neryungri which is a fascinating, young industry town in southeastern Siberia. The town was founded in 1975 along with the construction of two coal mines. The population of the town peaked shortly after the mines became operational, and now the town has a steady population of 50,000 inhabitants.

The field course consisted of lectures, seminar sessions and field trips to various local sites. The lectures and student presentations covered a wide range of topics on extractive industries in the Arctic, which was well matched with the excursions of the course. We visited two local mining sites: an open pit mine owned by Yakutugol and a subterranean mine owned by Kolmar. Both mines are located on the outskirts of Neryungri. These excursions gave a thorough view on the industrial development of the region as the whole town was built around coal mining. It was fascinating to see and feel how the coal mine was intertwined in the past and present of the town. We also got a completely different perspective to the regional development of the area with an excursion to the nearby village of Iengra, located an hour's drive away from Neryungri. The village is populated by the Evenki reindeer herders who still continue their nomadic migrations. We visited the local community centre and got acquainted with the history of the village as well as the way of life of the community. Our last field trip was to a local hot spring an hour's drive north of the town. The hot springs provided a nice warm Arctic bath as the outside temperature was -35°C.

Although I have lived a long time only a few hundred kilometers away from the Russian border, this was my first trip to Russia – and what a place Neryungri and Yakutia was for that purpose! The Arctic came alive in a new way when I noticed ending up in a similar environment (and weather) after a ten-hour flight from Rovaniemi, Finland. The similar patterns of development and change of the Arctic materialized exceptionally in the course of the lectures, student sessions and excursions. The participants of the course came from all around the Arctic, and the same issues and topics could be found in each of the discussed research settings. A big thank you to all organizers and the Thematic Network on Extractive Industries for making this course possible!



**T**he Permafrost/Active Layer Monitoring Program is a research project that keeps track of and monitors ground temperature and the active layer depth at Arctic communities. This is one of the important missions for the education and outreach project of the Thematic Network on Permafrost. Information from this research helps us understand climate change and its effects on the natural environment and local ecosystems, and the data we record now will be the starting point for what we will learn in the future.

# School Projects in Siberia Examine Permafrost

By **KENJI YOSHIKAWA**, Lead of the UArctic Thematic Network on Permafrost, Professor, University of Alaska Fairbanks

We hope to collect data for many years in order to track how permafrost and the active layer change over time. For the past ten years, we have been developing permafrost boreholes, active layer watching (frost tubes) and ice cellar monitoring in communities in Russia, the US, Canada and other Arctic countries, in total in over 400 communities. To gather data, we set up monitoring sites near communities and schools throughout Siberia and in other countries with permafrost, and students and teachers in local schools participate by reading measurements at the monitoring sites and recording the data. They can compare data online with schools in other villages and towns, and discuss what they have learned. Classroom lessons on permafrost have been developed for students at all grade levels, and we also delivered the first data archive book “Permafrost in Our Time” (Yoshikawa 2013) to the communities and schools.

Since 2012, we have visited 87 Siberian schools, covering most of the eastern and some western Siberian regions including Sakha (Yakutia), Sakhalin, Kamchatka, Magadan, Chukotka and Yamal, and given lectures and met with over 7,000 students and 300 teachers in Siberia. Through this project, students from remote areas can learn more about the permafrost. During the school year the students, under the guidance of their teacher, measure the depth of soil freezing in the frost tube on the schoolyard. They get to participate in permafrost scientific research, get hands-on scientific experience at the measuring sites, and see the connection between science and research, which expands their horizons and helps form their scientific worldview. One of our Permafrost Thematic Network leading universities, North-Eastern Federal University, has made tremendous efforts to make this project happen and to establish connection with remote indigenous communities and schools together with the Russian Academy of Sciences Permafrost Institute, Yakutsk and Russian Academy of Sciences Sergeev Institute of Environmental Geoscience.

*“Students get to participate in permafrost scientific research, get hands-on scientific experience at the measuring sites, and see the connection between science and research.”*

In some schools, we also found particular interest towards cryogenic phenomena: the study of icings in Kultuk, the mudflow dam erected after 1971 in Sludyanka, the searching of ice caves near Verkholensk, daily weather observations from 1981 onwards by a teacher of geography in Butakovo around the Baikal Lake region, to name a few. Teachers and students in Yakutsk Public School No. 14 worked to promote knowledge on permafrost, developing the project “Kingdom of Permafrost” which includes the history of permafrost study, observations and communication with scientists. Many high school students have also visited the underground laboratory at the Permafrost Institute. In addition, the first award of the international project “Frost Tube in Russian Schools” was received by students and their head teacher from Novy Urengoy at the Yamal Second Environmental Forum.

The data on the measurement of soil freezing and thawing in Siberian schools are available on the project website [www.uaf.edu/permafrost](http://www.uaf.edu/permafrost).

Our network of schools is also online at [permafrost.edublogs.org](http://permafrost.edublogs.org), created for communication between students and teachers from different towns and cities of Siberia.



By **JOHN EICHELBERGER**,  
 UArctic Vice-President Academic,  
 Lead of the UArctic Thematic  
 Network on Natural Hazards,  
 Dean, Graduate School,  
 University of Alaska Fairbanks  
 and **YEKATERINA KONTAR**,  
 Graduate Student, Research  
 Assistant, International Arctic  
 Research Center, University of  
 Alaska Fairbanks

# UARCTIC NATURAL HAZARD WORKSHOP

at Northern (Arctic) Federal University

In March 2014, approximately 40 graduate students and faculty in the fields of natural hazards, disaster communication and emergency management from Canada, Finland, Norway, Russia, Sweden and the United States came together for a UArctic Natural Hazards Workshop at the Northern (Arctic) Federal University in Arkhangelsk, Russia. The workshop participants shared their expertise in natural hazards that are prominent in the Arctic and subarctic regions (floods, wildfires, volcanic eruptions, earthquakes, tsunamis, permafrost and landslide hazards), as well as in disaster response and preparedness, hazard and crisis communication, and natural hazard policy. The workshop was the first major event of the UArctic's Natural Hazards Thematic Network which was established in 2013.

Collaboration within interdisciplinary and multinational teams was a theme of the week-long meeting. Participants assembled a set of presentations that will provide resources for future courses on natural hazards in the Arctic. The presentations outline physical principles behind hazards, highlight their socio-economic effects on northern communities, and discuss emergency management and disaster communication practices.

The workshop had two novel aspects. First, emphasis was placed on student leadership, with faculty acting in the role of knowledge and experience resources. Advanced students may have insights into what less advanced students want and need to understand, having just gone through this process themselves, whereas faculty

may have forgotten some of this or may not have adapted to current ways of learning. Additionally, the students attending the workshop will likely become leaders and decision-makers in areas of natural hazard management and policy, and there is no better way to learn a topic than to be faced with the challenge of teaching it.

A second novel aspect was the emphasis on the Arctic. Adaptation of risk reduction and crisis management techniques to high latitudes is seldom discussed, and the

difficulty is probably underappreciated. This may be especially true in the United States where 99.7% of the population lives at low- to mid-latitudes. For the US, Canadian and Russian Arctic and subarctic, there is a strong dependence on food and other supplies from the South. Long lifelines, some of which are seasonal, represent single points of failure with high vulnerabilities. While travel times are long, the window for effective response is made short in winter by extreme cold, and the response may have to be conducted in darkness. The presence





The town of Galena, Alaska during an ice-jam caused flood of the Yukon River in May 2013. Most of the residents had to be evacuated to Fairbanks. Such floods are common in the Arctic and threaten the very existence of rural communities.



Photos: Ed Plumb, US National Weather Service

of ice and snow modifies some natural hazard processes and requires adaptation of response techniques as well.

Numerical modeling of wildfires, direct management of breakup of ice, and intravenous administration of fluids in extreme cold are some of the less common approaches to natural hazard challenges that were portrayed. The presentations have not yet been formatted into course modules, but are available for viewing by contacting Katya Kontar ([ykontar@alaska.edu](mailto:ykontar@alaska.edu)).

## HANNA ERIKSSON

My name is Hanna, and I was born and raised in northern Sweden. I started to study psychology at Mid Sweden University in Östersund last autumn to become a clinical psychologist.

I've always been an explorer and a traveler, and I thought that an exchange would provide me with an opportunity to see a new part of the world, meet new people and get experiences I couldn't get in my town in Sweden. So to go and study psychology in Canada was a dream come true.

I'd heard a lot of good things about Canada and wasn't disappointed upon arrival. The people were so open, friendly and helpful, and I felt very welcome. I did my semester at Vancouver Island University in Nanaimo, in the far west of Canada. Vancouver Island has forests, mountains, beaches and many other beautiful places. I love nature and the diversity of places, so even if I find the nature back in Sweden more than perfect, I was happy to explore a new kind of environment, different-looking mountains and forests.


The studying was intense: it was a lot to do, and a whole new system to get used to. In Sweden we often take one course at a time, but at VIU you have all your courses running parallel throughout the whole semester. But the courses were super interesting, and the teachers were great, so I enjoyed it anyway. On the weekends I tried to get out and explore the beautiful island. We hiked on the mountains, went wave surfing, climbing, skiing and exploring. A lot of fun!

I loved my semester in Canada in many ways, and I am so happy that I went there. But in a weird way it also made me appreciate my home even more. To see signs saying "private property" in Canada made me so thankful for the freedom we have in the Scandinavian wilderness, where you can walk wherever you want and you are all sharing the nature – it's no one's property.

I would love to go back to Canada one day. The country is so big, the mountains massive and so cool, and there are so many places I would like to go to: explore more of the Rockies, maybe visit the far North where so few people live, and just hang out with more Canadians, such great people. I think I will take a lot with me from Canada. To be a psychologist you have to be able to meet different kinds of people in different situations, from different cultures and with different backgrounds, so just meeting people from all around the world has helped me with that.

I can encourage everyone who wants to go abroad to just do it. You have nothing to lose, just a lot to gain!





*The Launch of a Network for an*  
***Innovative***  
***North***

By **KEN COATES**, Lead of the UArctic Thematic Network on Commercialization of Science and Technology for the North, Director, ICNGD, University of Saskatchewan and **EMMY NEULS**, International Project Officer, ICNGD, University of Saskatchewan

**T**he UArctic Thematic Network on Commercialization of Science and Technology for the North officially held their first network meeting at the Arctic Frontiers conference in January 2015. The meeting brought together 25 representatives from the Nordic countries and North America to identify the main barriers and challenges related to the commercialization of science and technology for the North.

In efforts to meet the northern challenges and opportunities of the 21<sup>st</sup> century, UArctic's Thematic Network on Commercialization of Science and Technology for the North was established

to identify opportunities for commercially viable scientific and technological innovations that will support northern families, communities and societies. Working collectively through the network, the members hope to better equip the Circumpolar North during the most sustained, intense and remarkable period of scientific and technological change ever experienced. Together, the North – with its sizable market, business environment and human capacity – has the opportunity to create its own future.

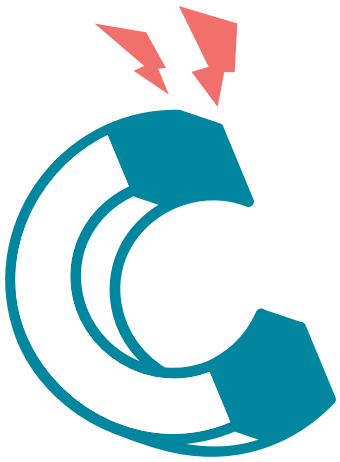
The network was approved at the UArctic Council meeting in Prince George in May 2014, and it is chaired by Dr Ken Coates, Canada Research Chair in Regional Innovation, and Director at the International

Centre for Northern Governance and Development (ICNGD) at University of Saskatchewan. The network currently has about ten active UArctic member institutions and several non-academic participants, and is looking for more partners to join.

The first network meeting identified areas of research and key deliverables within the next year. The next stage is to showcase the network's activities at a Circumpolar Innovation Workshop in Whitehorse, November 26-28, 2015. The workshop will initiate an ongoing discussion on how to improve the North's approach to innovation and capacity building across sectors and throughout the Circumpolar North. The event hosted by the Thematic Network,



***“Together, the North – with its sizable market, business environment and human capacity – has the opportunity to create its own future.”***

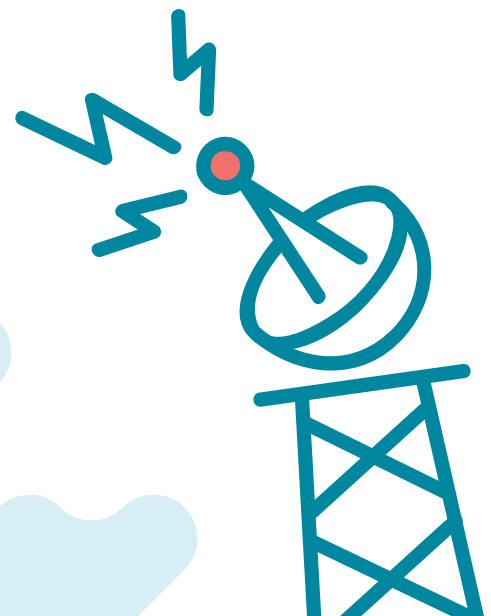


ICNGD and Yukon College will showcase the innovative research projects and businesses located in the Canadian North.

Arctic Frontiers 2015 also functioned as a venue to launch ICNGD’s Totally Open Online Course (TOOC) on Circumpolar Innovation. This is a free online course that introduces students to the commercialization of technology-based products and services shaping the Circumpolar North. The course also showcases innovative research projects and products being developed by members of the network. The course content is open sourced, and all members of UArctic can download and integrate the content to be credited courses within their institutions.

The Circumpolar Innovation course content, and a showcase of scientific and technological innovation lead by the network members and others will be available on the ICNGD website that was launched in advance of the 2015 Council Meeting of UArctic.

It can be found at  
[www.circumpolarinnovation.com](http://www.circumpolarinnovation.com)



# UARCTIC STUDENT AMBASSADORS

To find out more about our Student Ambassadors, see [education.uarctic.org/studentambassadors](http://education.uarctic.org/studentambassadors).

Get in touch with them through the UArctic Facebook page [www.facebook.com/uarctic](http://www.facebook.com/uarctic) or by email to [student.ambassadors@uarctic.org](mailto:student.ambassadors@uarctic.org).



By **OUTI SNELLMAN**, UArctic Vice-President Organization, Director of International Relations, University of Lapland

***“The knowledge I’ve gathered has helped me realize the amount of issues and problems of the Arctic and its people. They all need to be solved by us, the people living here, who understand these problems and care about our home.”***

*Alexander Terentjev, Syktyvkar State University (Komi, Russia)*

**T**he UArctic Student Ambassador Program was created in October 2014 by UArctic’s Board of Governors, as a select group of students drawn from our network of member higher education institutions. We now have 14 Student Ambassadors from diverse academic and cultural backgrounds across the Circumpolar North and beyond. They have been chosen because of their academic excellence, as well as their commitment to working internationally. In their role as Student Ambassadors, they work to promote UArctic in their home regions, represent UArctic internationally, and help connect UArctic and its student communities.

The first group of the UArctic Student Ambassadors met in a four-day training workshop at UiT – The Arctic University of Norway in Tromsø, in connection with the Arctic Frontiers conference in January 2015. The workshop included briefings on the UArctic network and its activities, and training sessions on communication and social media. The

workshop had a strong educational component, during which the students participate in lectures on contemporary Arctic issues from leading experts from across the UArctic network under the theme “Sustainable solutions for the Arctic.”

In Tromsø, the Student Ambassadors also had a chance to discuss Arctic issues with global leaders including Prince Albert II of Monaco, Prime Minister of Finland Alexander Stubb, US Special Representative to the Arctic Admiral Robert J. Papp Jr, Norway’s Minister of Foreign Affairs Børge Brende, Chair of the Standing Committee of Parliamentarians of the Arctic Region (MP, Parliament of Norway) Eirik Sivertsen, and US Special Advisor on Arctic Science and Policy Fran Ulmer.

Our Student Ambassadors will use the UArctic Facebook page to share their stories and experiences, and promote opportunities and study programs to their fellow students. They will also be present at the upcoming Rectors’ Forum in Umeå in August 2015 where they will have a leading role in the parallel Students’ Forum.

*“Being a part of the first group of Student Ambassadors for the University of the Arctic has been inspiring since day one. Tromsø is a beautiful host city for our diverse backgrounds, cultures and educational interests. I look forward to continuing our work together and creating a positive future for our Arctic.”*

*Caitlyn Baikie, Memorial University of Newfoundland (Labrador, Canada)*

Photo Olga Shavrina



**Student Ambassadors**  
**ALEXANDER SABUROV,**  
**ALEXANDER TERENTJEV**  
**and ILMIR VALIAKHMETOV**

The first meeting of the UArctic Student Ambassadors which took place in Tromsø, Norway in January 2015 gave us a clear understanding that we, representatives of different countries and different nationalities, share one Arctic. Challenges that our homes face are mostly the same and have mutual origins. Common problems that concern all of us are connected with environmental issues and implementation of modern technologies, sustainable social and economic development, preservation of indigenous peoples' regions and their traditional occupations, and the Arctic Ocean and its future. We acknowledge that the Arctic region is unique. It offers great economic opportunities connected with rich natural resources and transport routes such as the Northern Sea Route and the Northwest Passage. At the same time we need to preserve its ethnic and cultural diversity and its vulnerable ecosystems which are affected by climate change and pollution.

The key solutions to all these problems are cooperation and education. Historically the Arctic is a model region of international cooperation where challenges and conflicts are solved together in a peaceful way. We are supporting this tradition of partnership through representing our northern universities internationally and expressing ideas of students of the Arctic region. High-quality education is a powerful tool for us and future generations, and it will help develop the Arctic as a region of sustainable development, security and prosperity. As UArctic Student Ambassadors we have the opportunity to promote UArctic, the programs and the possibilities it offers, to develop student exchanges, and to increase the number of students involved in student mobility. And last but not least, our important goal as Ambassadors is to reach the hearts of everyone in our communities with the message that something should be changed and done to succeed in this mission.





# THE ARCTIC AS A REGION OF PEACE

By **TIMO KOIVUROVA**, Lead of the UArctic Thematic Network on Arctic Law, Research Professor,  
Director of the Northern Institute for Environmental and Minority Law, Arctic Centre, University of Lapland

**W**hen the Russians planted their flag underneath the North Pole in August 2007, many were convinced that the race was on between states for the safe and plentiful Arctic hydrocarbon resources. The storyline, especially popular in the media, was that with climate change melting these icy regions with plentiful resources, previously inaccessible to natural resource development, the states were engaging in typical power politics to determine who will get there first. This storyline was initially accepted also by the expert circles but only for a couple of years.

The Arctic Ocean coastal states came together in Greenland in May 2008 and issued the so-called Ilulissat Declaration, in which they argued, for example, that “... the law of the sea provides for important rights and obligations concerning the delineation of the outer limits of the continental shelf... We remain committed to this legal framework and to the orderly settlement of any possible overlapping claims.” It has thus been the law of the sea motivating the Arctic Ocean coastal states to examine the extent of their continental shelves, not any geopolitical interest to recover Arctic hydrocarbons.

Can we then expect more difficulties now that we are facing the confrontation between Russia and the Western powers due to the Ukraine conflict? Can these international tensions influence the conflict potential related to the overlapping continental shelf claims to the Arctic Ocean? And how would the generally worsening relations between Russia and the Western powers influence the Arctic Council cooperation?

Conflict in the Arctic cannot be ruled out. Relations are worsening between states that are also major players in the Arctic, and this time around the confrontation is real, not imagined. Yet, tensions over overlapping continental shelf claims in the Arctic Ocean seem very unlikely for many reasons.

When Denmark made a huge continental shelf claim over the Lomonosov Ridge, the same that Russia will also likely claim, it explained to the world community via making submission to the Commission on the Limits of Continental Shelf (CLCS) that it is ready to negotiate over those areas where its claim overlaps with those of others. It even included an agreement with Russia to its submission to the CLCS – an agreement that had been made after the Russian Crimean annexation – whereby the two states agreed on how to proceed in an orderly manner with continental shelf delimitation.

It has been a surprise to many why the Arctic Council cooperation continues unabated, even with Russia and the United States facing each other in the Council. It seems that all the cooperative efforts, both governmental and non-governmental, that have been ongoing after the Cold War in the region have created a space in which cooperative processes can continue even in the midst of large-scale tensions, like the one created by the Ukraine conflict.



## ZACHARY ANSTEY

My major at my home university, Memorial University of Newfoundland, is psychology. I decided to pursue an exchange to gain a broader perspective not only in my area of study but also to become a more globally engaged citizen. More specifically, partaking in a north2north exchange in Sweden, which is known for its high quality health care system, allowed me to combine my interests in health and the North from the perspective of another circumpolar country. I chose to study at Stockholm University and Karolinska Institutet for their course offerings, high-quality education and reputation, and opportunities available outside the classroom. During my exchange I have taken courses in Swedish language and nutrition and health at Karolinska Institutet, and I'm currently doing a research traineeship in molecular biosciences.

When I first arrived, what I noticed was the natural beauty of Sweden and the very high level of English that Swedes possess. Like Canada, Sweden has amazing nature, green spaces, environmental awareness and a love for winter sports. However, Swedes tend to drink a lot more coffee, and the coffee is much stronger than in Canada. They even have a special word for coffee breaks, *fika*, so needless to say they take their coffee culture very seriously!

To date my exchange experience has been nothing short of life changing. The highlight has been meeting people from all over the world and being exposed to so many different cultures and ways of thinking. As always, being independent in a different country and a new environment requires some getting used to, but the fact that there were so many people in the same situation made it pretty easy to get over the initial jitters. Oh and the darkness! The darkness during the winter months was certainly an adjustment.

The leadership skills, networking, collaboration, knowledge, personal growth and cultural awareness gained through this north2north exchange will definitely be indispensable in my studies and future career. For example, I've learned about the need for increased access to healthcare and preventative medicine in the Arctic, especially in the areas of mental health, diabetes, hypertension and obesity. As I will be starting studies in medicine in the fall, the knowledge gained through participation in this program and the opportunities for educational exchanges and collaborations with other circumpolar countries and UArctic member institutions will be invaluable. While each circumpolar country and region has their own uniqueness, strengthening the commonalities that bring us together will lead to a healthier and more prosperous Arctic for everyone.

I would very much like to return to Sweden some day, whether it be for a clinical elective, research or simply for a vacation. For anybody considering an exchange, I would simply tell them to seize the opportunity with both hands, to get outside their comfort zone and to take advantage of every opportunity. There are so many programs available within the north2north network that you can tailor to your interests and goals. I encourage you to take advantage of it – you won't regret it!

# Discovering Arctic Field Schools

By **ELISE STRØMSENG**, Director of UArctic Field School Office, Studies Adviser, University Centre in Svalbard (UNIS)

**F**ield schools are of great interest to students from all over the world. It does not matter whether it is summer or winter – students are eager to take part in relevant field schools as long as they have the time and possibility to do so. The online UArctic Field School Calendar is an easy way to announce Arctic field schools, and a good source for students to easily find field schools and courses.

In 2014 the Field School Calendar got a makeover through the launch of the new UArctic website. The renewed Calendar has become a more updated

and professional tool for announcing and searching for Arctic field schools, courses, and summer and winter schools. The work has been conducted by the UArctic International Secretariat in close cooperation with the UArctic Field School Office located at the University Centre in Svalbard (UNIS). The Field School Calendar is still maintained in partnership with the Association of Polar Early Career Scientists (APECS).

Partner institutions and other field school organizers in Arctic topics are encouraged to send information on their field, summer and winter schools to [fieldschool@uarctic.org](mailto:fieldschool@uarctic.org). This will ensure publicity and

announcement of the field school on the UArctic web pages. All field schools are also searchable through the online UArctic Study Catalogue, and in addition, student experiences from field schools are collected and published on the UArctic website.

The UArctic Field School Office will continue to collect information on upcoming field, summer and winter schools. There are also fresh thoughts of offering seminars, workshops and internship/trainee possibilities for field school organizers, so that institutions with field work and field schools in the Arctic can learn from each other and gain synergetic effects.

UArctic Field School Calendar  
[education.uarctic.org/field-school](http://education.uarctic.org/field-school)



# Вестник Исследовательского офиса Университета Арктики

выпуск № 3, июнь 2015

## Университет Арктики встречается в России

В связи с предстоящей встречей Совета Университета Арктики в России в этом выпуске журнала Shared Voices основное внимание уделяется арктической зоне РФ, российским членам Университета Арктики, а также вопросам межрегионального сотрудничества. Девиз Университета Арктики «Сильный Север - общими усилиями» приобретает особое значение в условиях глобализации. Общие усилия являются залогом будущего развития Арктики. Это касается как сотрудничества на национальном и международном уровнях, так и взаимодействия между различными направлениями арктических исследований. Для координации совместных действий в организационной структуре Университета Арктики появилась должность вице-президента по межрегиональному сотрудничеству. Формирование общей стратегии развития в сфере образования и науки, учитывающей точки зрения членов Университета Арктики из России, Северной Европы и Северной Америки, является приоритетом деятельности вице-президента. Усиление роли российских членов в Университете Арктики – одна из важнейших задач, стоящих перед консорциумом.

Внимание к России определяется в немалой степени тем, что наша страна представлена в Университете Арктики максимальным количеством участников: в его состав входят более 40 образовательных и научных организаций. Среди них четыре федеральных университета и три научно-исследовательских центра Российской академии наук. Географическое расположение колледжей и высших учебных заведений охватывает 22 города в 15-ти регионах Российской Федерации. Эти данные свидетельствуют о высокой заинтересованности российских университетов и научных центров в сотрудничестве с зарубежными партнерами и о включении международного направления в стратегии развития этих организаций.

Российские университеты открывают новые горизонты международной кооперации и общего образовательного пространства на Севере, активно используя свои ресурсы и знания. Возможности партнерства в рамках Университета Арктики огромны, они варьируются от продвижения университетов на глобальном рынке образовательных услуг до маркетинга совместных образовательных продуктов, реализации научных проектов и совместных публикаций.

Вклад каждого члена Университета Арктики, вне зависимости от его географического положения и опыта, является залогом нашего общего успеха и главной ценностью сетевого сотрудничества на Севере.

### **МАРИНА РУДОЛЬФОВНА КАЛИНИНА,**

*Вице-президент Университета Арктики по межрегиональному сотрудничеству*



**UArctic**  
uarctic.org

Исследовательский офис Университета Арктики, Архангельск, набережная Северной Двины, 17

тел. +7 8182 41 28 25, [research.office@uarctic.org](mailto:research.office@uarctic.org)

UArctic International Secretariat, Box 122, University of Lapland, 96101 Rovaniemi, Finland, [secretariat@uarctic.org](mailto:secretariat@uarctic.org)

## Университет Арктики: сплоченная партнерская сеть

**У**ниверситет Арктики - это сеть университетов, колледжей, научно-исследовательских институтов и других организаций, вносящих вклад в развитие образования и науки о Севере и на Севере. Университет Арктики создает и укрепляет базу для совместной работы организаций-членов по развитию северных регионов и их инфраструктуры. Благодаря сотрудничеству в области образования и науки, мы наращиваем человеческий потенциал, принимаем участие в формировании сильных сообществ, способствуем устойчивому экономическому развитию и созданию глобальных партнерств.

Цель Университета Арктики «Сильный Север – общими усилиями» означает, что все северяне должны иметь право голоса в построении своего будущего и будущего региона. Наша миссия «Вдохновлять людей циркумполярного Севера, предоставляя им уникальную возможность образования и исследований на платформе мощной партнерской сети» подтверждает эту цель.

В 2014 году мы продолжили укреплять свою роль в качестве сетевой организации, выстраивая различные механизмы наиболее эффективного сотрудничества наших членов. Среди основных направлений нашей работы - развитие тематических сетей и институтов, поддержка студенческой и преподавательской мобильности, разработка и продвижение образовательных программ о Севере, включая циркумполярные исследования, а также повышение роли наших членов в области научных исследований Арктики.

В организационной структуре Университета Арктики произошли важные изменения, были введены

новые должности вице-президентов. На сегодняшний день Университет Арктики возглавляет президент и пять вице-президентов (вопросы организации, академическое развитие, научные исследования, межрегиональное сотрудничество, коренные народы), у каждого из которых есть свои сферы ответственности. Правление Университета Арктики по-прежнему является высшим руководящим органом, а Совет - ключевым представительным органом, в заседаниях которого участвуют все члены Университета Арктики.

Сайт Университета Арктики полностью обновился в 2014 году. Эта инициатива была поддержана норвежским Министерством иностранных дел и нашими членами. Новый сайт стал более удобным, функциональным и информативным. На страницах с профилями организаций обозначены основные направления их деятельности, а также даны ссылки на предлагаемые образовательные программы, последние новости, отзывы студентов и многое другое. Каталог образовательных программ также был обновлен: у пользователей появилась возможность удобного поиска курсов и учебных программ по северной тематике. Университет Арктики постоянно пополняет календарь летних школ, разработанный совместно с Ассоциацией молодых полярных исследователей (APECS) и Университетским центром Свальбарда (UNIS). Этот раздел сайта анонсирует предстоящие полевые школы и краткосрочные курсы, организуемые членами Университета Арктики.

Созданная в 2014 году программа «Студенты-послы Университета Арктики» (UArctic Student Ambassadors) дает студентам прекрасную возможность присоединиться к группе студенческих лидеров, которые представляют Университет Арктики на различных мероприятиях. Послы собираются для обсуждения важных арктических вопросов и поддерживают связь с настоящими и будущими студентами.

Назначение Марины Рудольфовны Калининой (САФУ) вице-президентом Университета Арктики по межрегиональному

сотрудничеству усилило взаимодействие между зарубежными и российскими членами. В октябре 2014 года проходил семинар, направленный на активизацию деятельности российских участников в программах и мероприятиях Университета Арктики. Участники семинара в Архангельске получили знания в области международного маркетинга и разработки совместных образовательных программ. Запуск русскоязычной версии сайта, постоянное обновление и перевод новостей сотрудниками офисов Университета Арктики в САФУ и СВФУ укрепили сотрудничество и обмен информацией между российскими и зарубежными членами Университета Арктики.

Для совершенствования циркумполярной мобильности в 2014 году был запущен проект анализа возможностей преобразования north2north во всеобъемлющую программу мобильности. Будущая программа north2north+ сможет удовлетворить потребности в академической мобильности, включая краткосрочные обмены административного персонала, студентов-выпускников, практику на промышленных предприятиях. Принять участие в новой программе смогут все страны циркумполярного региона. Также следует упомянуть, что Дания, Гренландия и Фарерские острова стали полноправными участниками программы north2north после успешного пилотного проекта «MobilityDK», реализованного при поддержке Датского агентства по науке, технологиям и инновациям.





## Университет Арктики в России: на пути к успешному партнерству

**ОЛЬГА КЛИШЕВА,**  
менеджер Исследовательского офиса  
Университета Арктики:

**О**бщение и обмен информацией с российскими участниками сети – важная составляющая работы нашего офиса. Налаживая связи с университетами, мы получаем уникальную возможность знакомства не только с их структурой, направлениями подготовки, исследовательской деятельностью, но и с различными регионами нашей страны, разнообразием её природных богатств, традиций и культуры. Несмотря на разные часовые пояса и связанные с этим сложности в организации взаимодействия со всеми регионами, мы получаем массу положительных эмоций при работе с фото- и видеоматериалами, а также с новостями, поступающими к нам из разных городов России. Не менее приятно чувствовать отдачу со стороны участников консорциума, все чаще и активнее использующих преимущества своего членства в Университете Арктики. Хочется поблагодарить всех наших респондентов за их вовлеченность и вклад в развитие сети, а также предоставить слово некоторым из них:

**НИКИТА КУЗИН,**  
координатор международных программ мобильности:

Ухтинский государственный технический университет вошел в состав Университета Арктики 10 лет назад. За это время налажено тесное сотрудничество с российскими и зарубежными партнерами, в том числе в рамках деятельности тематических сетей. За время сотрудничества студенты нашего университета прошли обучение по

различным программам Университета Арктики, наибольшей популярностью пользуется изучение циркумполярных наук. Отличные профессиональные знания и связи в международной среде, приобретённые за годы учебы, повышают заинтересованность работодателей в наших выпускниках. Наш университет принимает активное участие в мероприятиях Университета Арктики, одним из которых был семинар «Глобальный доступ к высшему образованию на Севере» в Архангельске. Для Ухтинского университета участие в семинаре сыграло важнейшую роль в формировании основных принципов рекрутинга иностранных студентов, который в данный момент является одним из главных и успешных направлений международного отдела УГТУ.

**АЛЕКСАНДР ГОРДИЕВСКИЙ,**  
главный специалист центра  
международного сотрудничества:

Тюменский Государственный Нефтегазовый Университет включился в работу Университета Арктики в 2014 году. Сегодня ТюмГНГУ активно презентует себя на сайте Университета Арктики. В нашем профиле представлена вся актуальная информация об образовательных программах, курсах и летних школах, перечислены ключевые научные направления. Работа в рамках Университета Арктики не ограничивается информационной составляющей: в январе 2015 ТюмГНГУ вошел в число участников программы north2north, была подана первая заявка от студента университета. В дальнейших планах активизация участия в тематических сетях Университета Арктики, тесное сотрудничество с российскими и зарубежными коллегами по широкому спектру направлений: от арктической геологии до социальной работы и менеджмента. Тюменский Государственный Нефтегазовый Университет является многопрофильным вузом и крупным научно-образовательным центром, которому есть что предложить партнерам.

**ЕЛЕНА НИКИТИНА,**  
директор техникума:

Ненецкий аграрно-экономический техникум уже 5 лет является членом Университета Арктики. Каждый семестр студенты техникума имеют возможность поехать в какой-либо город за пределами не только региона, но и страны в целом. С нашими партнерами по Университету Арктики мы разрабатываем совместные проекты, например, норвежско-российский проект "Reaserainting", в рамках которого мы поставили спектакль в Броннейсунде и Тронхейме (Норвегия) по мотивам ненецких сказок под общим названием "Солнце Нового Года". Естественно, без знаний иностранных языков, английского в особенности, ребята попросту не смогли бы вести беседу. Поэтому в нашем техникуме создан клуб английского языка "WSSE", в котором студенты всех курсов и возрастов с энтузиазмом изучают не только язык, но и культуру, традиции других стран.

## Опыт российских ученых на благо глобальной Арктики

*Среди членов Университета Арктики голос исследовательских центров слышен не так часто. Тем не менее, именно они генерируют знания, жизненно необходимые для качественного развития системы образования. Научные исследования – основа сотрудничества для Университета Арктики, его участники Кольский и Карельский центры Российской академии наук рассказывают о своей научной деятельности:*



**ВЛАДИМИР МАСЛОБОВЕВ,**  
заместитель председателя Кольского  
научного центра РАН:

Кольский научный центр РАН – комплексное научное учреждение, осуществляющее фундаментальные исследования высокоширотной области Земли и обеспечивающее научную основу для оценки ресурсного потенциала освоения и развития Арктики. Эти исследования расширяют базу знаний и данных, необходимых для выявления важнейших факторов, контролирующих состояние и динамику взаимодействия природных систем в полярных районах. С учетом специфики региона и географического положения усилия Кольского научного центра сосредоточены на разработке следующих научных направлений:

• **в области естественных наук**

Исследование свойств и параметров природных систем Евро-Арктического региона, определение их роли в глобальных геосферных процессах; оценка масштабов геохимической трансформации вещества в арктических геобиосферных системах, выявление трендов естественной эволюции и прогноза нарушений под воздействием антропогенных факторов.

• **в области технических наук**

Разработка научных основ неразрушающего природопользования, создание экологически безопасных технологий для рационального использования природного и техногенного сырья для поддержания качества среды обитания с учетом специфики Севера; совершенствование методов и систем контроля равновесия техносферы и природной среды. Создание и развитие региональных информационных систем и автоматизированных систем обучения. Разработка научных основ рациональной энергетической политики.

• **в области общественных наук**

Исследование социальной и этнической структуры общества, динамики миграционных процессов, формирования и распределения трудовых ресурсов,

уровня и качества жизни в Заполярье с учетом специфики традиционных методов хозяйствования коренного населения Севера; развитие научных основ управления экономикой Севера.

**ИГОРЬ ШЕВЧУК,** специалист по  
международному сотрудничеству  
Карельского научного центра РАН:

КарНЦ РАН объединяет около 400 ученых, работающих в 7 научно-исследовательских институтах. Направления исследований, ведущихся на базе Центра, тесно связаны с Арктикой:

- карельские биологи совместно с норвежскими коллегами выявили физиолого-биохимические механизмы адаптации репродуктивного цикла некоторых видов рыб в условиях Арктики и субарктики. Результаты этого научного проекта дополняют и расширяют представление о фундаментальной роли липидов и жирных кислот в репродуктивной функции у рыб, обитателей высоких широт. Исследуется влияние нефтяного загрязнения на окружающую среду, с использованием чувствительных физиолого-биологических показателей двустворчатых моллюсков, обитающих в морях Арктики и Субарктики. Биологи-паразитологи провели мониторинг и анализ экологических факторов, определяющих видовое разнообразие паразитов и уровень зараженности рыб. При этом был создан атлас паразитов лососевых рыб рек арктического побережья Баренцева и Белого морей.
- в области медицины человека изучается специфика структурной организации клеточных мембран эритроцитов и автоокисление гемоглобина человека в условиях Севера. В результате исследований будет выяснен молекулярный механизм биологического действия мелатонина на компоненты крови.
- Институт леса изучает особенности произрастания древостоев на

северном пределе их распространения. Почвоведы занимаются исследованиями функционирования почв в естественных экосистемах Арктики и Субарктики, а также при различном антропогенном воздействии.

- Институт водных проблем Севера исследует Белое море, Ладожское и Онежское озера, изменение климата, а также антропогенное воздействие на водоемы высоких широт. Сотрудники института разрабатывают рекомендации по управлению водными ресурсами Севера.
  - Институт экономики проводит исследования темпов экономического развития регионов арктической зоны. Экономисты также изучают системы расселения в северных регионах, проблемы урбанизации и устойчивого развития периферийных территорий.
  - гуманитарные проблемы Баренцева региона, изучение места человека в социокультурном пространстве Арктики занимают ученых Института языка, литературы и истории. Предметом их интереса являются культура и этнокультурная история Севера, связанные с саамами, норвежскими и российскими финнами, их культурными контактами.
- В перспективе КарНЦ РАН продолжит работу по этим и другим направлениям. Карельским ученым важно добиться синергии в исследованиях с передовой мировой наукой, чтобы результаты сотрудничества нашли практическое применение в глобальной Арктике.





**James (Jim) McDonald**  
1951-2015

Chair of the Council of UArctic

UArctic Council Representative of University of  
Northern British Columbia

*Ex officio* member of the UArctic Board of Governors;  
previously acted as Vice-Chair of the Council of  
UArctic, Chair of the UArctic Membership and  
Nominations Committee, and Chair of the UArctic  
Academic Quality Committee

# UArctic members

\*Pending approval by Council in 2015

## CANADA

- Arctic Athabaskan Council
- Arctic Institute of North America
- Association of Canadian Universities for Northern Studies
- Aurora College
- Brandon University
- Cape Breton University
- Cégep de Victoriaville\*
- Center for Northern Studies / Centre d'Études Nordiques
- Churchill Northern Studies Centre
- Gwich'in Council International
- Lakehead University
- Makivik Corporation
- Memorial University of Newfoundland
- Northern Teacher Education Program
- Northlands College
- Nunavut Arctic College
- Nunavut Sivuniksavut
- Qaujigiartiit Health Research Centre
- Royal Military College of Canada
- Royal Roads University
- Saint Mary's University
- TELUS World of Science - Edmonton
- Trent University\*
- Université du Québec à Montréal
- Université du Québec à Rimouski
- Université Laval
- University College of the North
- University of Alberta
- University of Manitoba
- University of Northern British Columbia
- University of Regina
- University of Saskatchewan
- University of Winnipeg
- Vancouver Island University
- Wilp Wilxo'oskwhl Nisga'a Institute
- Yukon College

## DENMARK/FAROE ISLANDS/GREENLAND

- Aalborg University
- Aarhus University
- Arctic Technology Centre - Technical University of Denmark
- Copenhagen Business School\*
- Department of Environmental and Business Economics - University of Southern Denmark
- Greenland Institute of Natural Resources\*
- Ilisimatusarfik / University of Greenland
- Nordisk Fond for Miljø og Udvikling
- Perorsaanermik Ilinniartarfik / College of Social Education
- Roskilde University
- University of Copenhagen\*
- University of the Faroe Islands

## FINLAND

- Diaconia University of Applied Science
- Finnish Institute of Occupational Health\*
- Finnish Meteorological Institute
- Lapland University of Applied Sciences
- Laurea University of Applied Sciences
- Oulu University of Applied Sciences
- Sámi Education Institute
- University of Eastern Finland
- University of Helsinki
- University of Lapland
- University of Oulu
- University of Tampere
- University of Turku

## ICELAND

- Arctic Portal
- Bifröst University
- Iceland Academy of Arts\*
- Reykjavik University
- Stefansson Arctic Institute
- University Centre of the Westfjords
- University of Akureyri
- University of Iceland

## NORWAY

- Arran Lulesami Center
- Center for International Climate and Environmental Research
- GÁLDU Resource Centre for the Rights of Indigenous Peoples
- GRID-Arendal
- Harstad University College
- International Centre for Reindeer Husbandry
- Narvik University College
- Nesna University College
- Nord-Trøndelag University College
- Norwegian Scientific Academy for Polar Research
- Norwegian University of Science and Technology
- Sámi University College
- UiT The Arctic University of Norway
- University Centre in Svalbard
- University of Agder\*
- University of Bergen
- University of Nordland
- University of Oslo
- University of Stavanger

## RUSSIAN FEDERATION

- Arctic College of the Peoples of the North\*
- Arctic Scientific Research Centre
- Arctic State Institute of Arts and Culture
- Baikal State University of Economics and Law (Filial)

- Barguzinsky State Nature Biosphere Reserve and Zabaikalsky National Park
- Buryat State Academy of Agriculture
- Buryat State University
- Centre for Support of Indigenous Peoples of the North / Russian Indigenous Training Centre
- European University at St Petersburg
- Far Eastern Federal University\*
- Far Eastern State Transportation University\*
- Herzen State Pedagogical University of Russia
- Institute of the Humanities and the Indigenous Peoples of the North - Siberian Branch RAS
- International Institute of Business Education
- Karelian Research Centre of the Russian Academy of Sciences
- Kola Science Centre RAS
- Komi Republican Academy of State Service and Administration
- Murmansk State Humanities University
- Murmansk State Technical University
- Naryan-Mar Social Humanitarian College
- National Research Tomsk State University\*
- Nenets Agrarian Economic Technical School
- Nizhnevartovsk State University\*
- Norilsk State Industrial Institute
- North-Eastern Federal University
- Northern (Arctic) Federal University
- Northern National College
- Northern State Medical University
- Petrozavodsk State University
- Pskov State University
- RAIPON
- Russian State Hydrometeorological University
- Saint Petersburg State University
- Sakha Republican Teachers' Professional Skills Advancement Institute
- Scientific Research Institute of National Schools of the Republic of Sakha (Yakutia)
- Siberian Federal University
- State Polar Academy
- Surgut State Pedagogical University
- Surgut State University
- Syktyvkar Forest Institute
- Syktyvkar State University
- Taymyr College
- Tyumen State Oil and Gas University
- Tyumen State University
- Ukhta State Technical University
- Ural Federal University
- VNIIOkeangeologia - The All-Russia Scientific Research Institute for Geology and Mineral Resources of the Ocean
- Yakutsk State Agricultural Academy
- Yamal Multidisciplinary College
- Yamal Polar Agroecological Technical School
- Yugra State University

## SWEDEN

- Abisko Scientific Research Station
- Luleå University of Technology
- Lund University
- Mid Sweden University
- Sámi Educational Centre
- Stockholm University
- Umeå University

## UNITED STATES

- Antioch University New England
- Arctic Research Consortium of the United States
- Association for Canadian Studies in the United States
- Center for Circumpolar Studies
- Climate Change Institute - University of Maine
- Cold Climate Housing Research Center
- Dartmouth College
- Florida SouthWestern State College\*
- Ilisagvik College
- Institute of the North
- Polar Libraries Colloquy
- Scandinavian Seminar Group
- University of Alaska Anchorage
- University of Alaska Fairbanks
- University of Washington

## NON-ARCTIC

- Austrian Polar Research Institute (Austria)\*
- Chinese Academy of Geological Sciences (China)\*
- Chinese Academy of Meteorological Sciences (China)
- Chinese Research Academy of Environmental Sciences (China)
- Dalian Maritime University (China)
- Durham University (UK)
- Educational Studies School - Mongolian National University of Education (Mongolia)
- Environmental Development Centre - Ministry of Environmental Protection (China)
- First Institute of Oceanography, State Oceanic Administration (China)
- Hokkaido University (Japan)
- International Polar Foundation (Belgium)
- Korea Maritime Institute (Korea)
- National Marine Environmental Forecasting Center (China)
- Ocean University of China (China)
- Polar Research Institute of China (China)
- Research Centre CEARC - University of Versailles Saint-Quentin-en-Yvelines (France)
- Second Institute of Oceanography, State Oceanic Administration (China)
- Third Institute of Oceanography, State Oceanic Administration (China)
- University of Aberdeen (UK)
- University of the Highlands and Islands (UK)