

## **Final category: 3. Socio-economic development in the region**

**20**

### **New Russian Arctic development: greenfield projects, poles of growth, and FIFO settlement model**

Alexander Pilyasov<sup>1</sup>, Nadezhda Zamyatina<sup>1</sup>, Lena Putilova<sup>2</sup>

<sup>1</sup>Lomonosov Moscow State University, Moscow, Russian Federation. <sup>2</sup>Institute of Regional Consulting, Moscow, Russian Federation

#### **Theme**

3. Socio-economic development in the region

#### **Abstract text**

In the focus of our session will be new realities of the contemporary cycle of the Russian Arctic resource development: resource corporations as new actors, new marine logistics, new Asian markets etc. Throughout the whole session will pass the comparison between the Soviet era Arctic resource development and comtemporary cycle. Major goals of the session will be 1) to show techno-economic potential of the new resource (platform) development of the Russian Arctic; 2) to reveal profound social contrasts in this process, unprecedented in comparison with the past Soviet period; 3) to show the potential of the active public policy in making this development more sustainable

#### **Session format**

1. Oral presentations only

#### **Open or Closed Session**

Open

## **The Discourse of the Arctic in the history of world science and in memorial practices of Soviet and post-Soviet Russia**

D.Sc.in History Andrei Shutov<sup>1,2</sup>, D.Sc.in Political Science Alexander Shirinyants<sup>1</sup>, D.Sc.in Political Science Andrey Polosin<sup>3</sup>

<sup>1</sup>Lomonosov Moscow State University, Moscow, Russian Federation. <sup>2</sup>Central Election Commission of Russia, Moscow, Russian Federation. <sup>3</sup>State Atomic Energy Corporation Rosatom, Moscow, Russian Federation

### **Theme**

3. Socio-economic development in the region

### **Abstract text**

For most of the 20th century, Russia was a pioneer in the development of the Arctic. Within the framework of the section, the history of Russian and world science will be presented, dedicated to the development of the Arctic - a unique territory for interesting research and new scientific discoveries and technological breakthroughs, further prospects for the development of this strategically important and mysterious region. The section will be devoted to reflecting the history of Arctic development in Soviet culture and in the culture of modern Russia, for example, monuments, literary and artistic works in which the pantheon of Arctic heroes was formed, as well as the practice of memories of key points of Arctic history in modern museums.

### **Session format**

1. Oral presentations only

### **Open or Closed Session**

Open

## **Improving the quality of human life in the Arctic**

Tatyana Safronova

Siberian Federal University, Krasnoyarsk, Russian Federation

### **Theme**

3. Socio-economic development in the region

### **Abstract text**

This session purpose is to find and discuss the new solutions for the societies living in the High North that might sufficiently improve the quality of human life in the region. The session might include oral reports and presentations dedicated to the infrastructure improvements, social development, new psychological approaches, technical solutions in communication and logistics for the distant areas, that will help to make the life in the High North more attractive.

### **Session format**

3. Panel discussion

### **Open or Closed Session**

Open

## Smart Societies in the High North: Opportunities and Challenges

Nadezda Nazarova<sup>1</sup>, Evgenii Aleksandrov<sup>1</sup>, Rob McMahon<sup>2</sup>

<sup>1</sup>Nord University, Bodø, Norway. <sup>2</sup>University of Alberta, Edmonton, Canada

### Theme

3. Socio-economic development in the region

### Abstract text

The session is organized under the umbrella of the Thematic Network on Smart Societies in the High North (SmartNorth). The Thematic Network intends to unite the efforts of academic personnel from universities and research institutions as well as representatives from public sector institutions and businesses in the High North who share interests in the concept of smart societies for envisioning, development, promotion and dissemination of knowledge related to smart societies in the High North.

A city or community can be considered ‘smart’ when investments in human and social capital and traditional and modern ICT-based infrastructure fuel sustainable economic growth, high quality of life, and wise management of natural resources through participatory government (e.g. Schaffers et al., 2012). In the context of smart societies in the High North, beside the common Arctic issues, the overarching aims are cooperation, coordination and interaction on issues of sustainable development and environmental protection in the Arctic. In other words, main dimensions of smart development – e.g. smart economy, smart mobility, smart governance, smart environment, smart living and smart people - should address how cities and communities apply information and communication technologies and services to tackle the priority issues.

The topics of interest for this session include but are not limited to: smart societies and social inclusion, digital literacy, smart city governance and citizens involvement, urban design of winter cities, etc. We encourage existing members as well as potential ones to submit an abstract for a fruitful discussion.

### Session format

1. Oral presentations only

### Open or Closed Session

Open

## **Final category: 3.1. Economic cooperation**

**30**

### **Arctic Engineering**

Ramil Guliev

Northern (Arctic) Federal University named after M.V. Lomonosov, Arkhangelsk, Russian Federation

#### **Theme**

3.1. Economic cooperation

#### **Abstract text**

«Arctic Engineering» session explores the following problems of study and develop economic cooperation of the Arctic:

**Energy industry** - energy consumption is increasing annually due to the increase in the world's population and the energy intensity of production. It is the main consumer of petroleum products and produces the largest amount of greenhouse gases, in particular carbon dioxide.

Therefore, the use of new, unconventional hydrocarbon reserves, such as gas hydrates and gas fields and alternative sources of energy, which are concentrated in the Arctic region, is a priority task in the new chapter in the development of world energy industry.

New energy projects require unique and innovative approaches in modeling, design and development. **The aim of the energy part of session is to focus on study the latest developments in the field of energy industry.**

**Construction** - at present, major projects for the modernization and reconstruction of the social, industrial, housing, transport, and other infrastructure of the Arctic require new construction regulations that take into account the extreme permafrost conditions.

Our aim is to find ways to minimize all kinds of burdens on the environment, both during the construction and operation of facilities. To achieve this goal, modern technical solutions that optimize all aspects of interaction with the environment need to be developed and applied, including the use of minimally manned, energy-saving, and eco-friendly technologies.

**The main focus of session is to combine the best practices of energy and construction industries for development sustainable economic cooperation in the Arctic.**

**Session format**

2. Oral and poster presentations

**Open or Closed Session**

Open

## **Cross-cutting session on research opportunities and economic development in the Arctic**

Elena Tishchenko<sup>1</sup>, Mikhail Tokarev<sup>2</sup>, Nikolay Shabalin<sup>3</sup>

<sup>1</sup>Faculty of Economics, Lomonosov Moscow State University, Moscow, Russian Federation. <sup>2</sup>Geological faculty, Lomonosov Moscow State University, Moscow, Russian Federation. <sup>3</sup>Biological faculty, Lomonosov Moscow State University, Moscow, Russian Federation

### **Theme**

#### **3.1. Economic cooperation**

### **Abstract text**

In this session we will present and discuss the series of case studies showcasing how economical development in the Arctic region can provide research opportunities through collaboration with the private sector, including data collection, infrastructure development, parallel observations and other. Some of the topics and case studies covered in the session will include the following:

1. Tourism industry providing opportunities for scientific research and education. Case study: "The Arctic Circle" dive centre and lodge in Nilma Bay, White Sea, Russia – overview of the educational and research programs on the platform of tourist station.
2. Offshore industries and research projects. Case study 1: Integrated geophysical data collection and interpretation by Lomonosov Moscow State University, Rosneft, and VNIIookeangeologia to identify stratigraphic drilling location. Case study 2 – Research expeditions of the Arctic Science Center of Rosneft, A.N. Severtsov Institute of Ecology and Evolution and Lomonosov Moscow State University Marine Research Center to study biological indicators of environmental change in the Russian Arctic.
3. Arctic Council as a mechanism enhancing scientific research and cooperation. Case study - Snowflake International Arctic Station, a new initiative by the Russian Chairmanship of the Arctic Council in 2021–2023

Contributions of successful collaboration examples are welcome.

### **Session format**

#### **2. Oral and poster presentations**

### **Open or Closed Session**

Open

## **Final category: 3.2. Development of infrastructures and sustainable shipping**

**14**

### **International cooperation for development of infrastructure, safe shipping and sustainable logistics for the Northern Sea Route**

Ivan Savelev<sup>1</sup>, Pavel Birukov<sup>2</sup>, Maxim Zadorin<sup>1</sup>, Tatiana Sorokina<sup>1</sup>, Jawahar Bharwat<sup>1</sup>, Andrey Todorov<sup>3</sup>, Aleksandr Sergunin<sup>4</sup>, Elena Osipova<sup>1</sup>, Elena Bogdanova<sup>1</sup>, Aleksandr Vylegzhannin<sup>5</sup>

<sup>1</sup>NARFU, Arkhangelsk, Russian Federation. <sup>2</sup>VGU, Voroneg, Russian Federation. <sup>3</sup>IMEMO Russian Academy of sciences, Moscow, Russian Federation. <sup>4</sup>SpbGU, Saint Petersburg, Russian Federation.

<sup>5</sup>MGIMO, Moscow, Russian Federation

#### **Theme**

3.2. Development of infrastructures and sustainable shipping

#### **Abstract text**

The purpose of the session to put forth several legal, economic, political recommendations for improving international cooperation to make the NSR a globally competitive transport corridor. This would include enhancing NSR infrastructure, effective coordination of Arctic logistic systems, thus making it sustainable for shipping and also ensuring navigation safety.

The opening of the Arctic sea routes due to the melting of ice ushers in many opportunities for enhancing international trade along the NSR, and this will enhance the economies of all countries that utilise it. Various researchers have highlighted that the NSR infrastructure needs improvement to achieve the Russian government goal of making it an internationally competitive transport corridor. The International Maritime Organization has introduced the Polar code for shipping and the training of seafarers. There is a need to examine the adequacy of measures undertaken to improve the infrastructure of NSR ports, associated infrastructure in the Arctic for safe navigation and communication, the current state of Search and Rescue (SAR) facilities and regulations to implement the Polar Code. Vast territories, sparsely populated areas, remoteness are the main challenges facing the logistics system of the Arctic. Delivery of various cargoes to settlements, fishing and mineral resources to processing places require legal regulation of the logistics system. The transport network of the region is tied primarily to the NSR. At the same time, the issues of interaction of different traffic flows are important. Issues of economics, law and politics in the organisation of logistic systems of the Arctic would also be discussed.

#### **Session format**

4. Round table discussion

**Open or Closed Session**

Open

## **Arctic Transportation Challenges at Sea and Beyond**

Kjell Stokvik<sup>1,2</sup>, Natalia Anikeeva<sup>3</sup>

<sup>1</sup>UArctic Thematic Network Arctic Transportation and Logistics (ATL), Kirkenes, Norway. <sup>2</sup>Nord University, Bodø, Norway. <sup>3</sup>Mumansk Stat Techical University, Murmansk, Russian Federation

### **Theme**

3.2. Development of infrastructures and sustainable shipping

### **Abstract text**

Issues of sustainable shipping in the Arctic are being widely discussed and included in the top agenda of the Arctic countries. It is connected with prospects of oil and gas exploration as well as with cargo transportation and Arctic tourism. Logistics development and supply chain management can't be now be considered regardless the challenges created by the pandemic situation. Aspiration of the Arctic actors to reach the low carbon or "green" logistics brings the issues of legislation and environmental protection to the wide discussion by stakeholders in US, Europe, Asia and in Russia. We will also highlight the impact of logistics development in the Arctic on local communities and indigenous population and social responsibility of the businesses operating in the area.

The session will be closed / by invitation only. The list of speakers will be active members of the Uarctic thematic network Arctic Transportation and Logistics (ATL) (confirmed), authorities (TBC) and business partners ( TBC)

### **Session format**

4. Round table discussion

### **Open or Closed Session**

Closed

## **Development of ecological monitoring of the Northern Sea Route**

Alexei Bambulyak<sup>1</sup>, Nikolay Shabalin<sup>2</sup>, Anna Gebruk<sup>2</sup>

<sup>1</sup>Akvaplan-niva AS, Tromsø, Norway. <sup>2</sup>Lomonosov Moscow State University Marine Research Center, Moscow, Russian Federation

### **Theme**

3.2. Development of infrastructures and sustainable shipping

### **Abstract text**

There is currently a global interest to the development of the Northern Sea Route (NSR) – the largest trans-Arctic shipping route between the Kara Sea and Chukchi Sea. The operator of the NSR, Russian State Atomic Energy Corporation «Rosatom» is committed to ensuring environmental and navigational safety of operations and compliance with national and international standards and regulations. As a part of this process, the Lomonosov Moscow State University Marine Research Center (LMSU MRC, Russia) together with Akvaplan-niva (Norway) has launched the pilot program of ecological monitoring along the NSR in 2020-2021 to assess the baseline state of marine ecosystems along the Northern Sea Route and develop further regular program of environmental monitoring together with the international expert group formed by representatives of national and international scientific organizations, NGOs and working groups. In this session describe the outcomes of the pilot monitoring studies and discuss the development and implementation of the ecological monitoring of the Northern Sea Route.

### **Session format**

1. Oral presentations only

### **Open or Closed Session**

Closed

## **Final category: 3.3. Arctic tourism**

**28**

### **Inventive Approach to Arctic Tourism: Connecting Art, Science, Nature, People, and Cultures**

Herminia Din<sup>1</sup>, Maria Huhmarniemi<sup>2</sup>, Tatiana Kravtsov<sup>2</sup>

<sup>1</sup>University of Alaska Anchorage, Anchorage, USA. <sup>2</sup>University of Lapland, Rovaniemi, Finland

#### **Theme**

3.3. Arctic tourism

#### **Abstract text**

Arctic environment and the speed with which it is changing dictates that we should be involved more in the processes of knowledge transfer, raising public awareness, and encouraging stewardship of the Arctic through an inventive approach. Most importantly, how to build a partnership with tour operators to develop a sustainable tourist program that focuses on citizen-engaged scientific observation, makes a place-based sustainable souvenir, builds understanding of native people and cultures, and creates a sense of place. Interdisciplinary solutions are needed with a strong emphasis on the part of participants' hands-on engagement. This panel will encourage discussions and ideas on how to develop such a program that brings visitors closer to the Arctic by making a deeper connection and a meaningful experience. It is meant to help participants to raise their awareness of the changing environment and develop social responsibility for their actions. An inventive Arctic Tourism can serve as a call to action to safeguard our Arctic.

Case Studies:

#### **Encounter-A-Tree Installation to Enhance Local Tourism Activities**

Directs the audience towards experiencing interaction with trees. The installation follows the view of Arctic art as an experience, revitalization of ecoculture as well as a political statement for environmental sustainability.

#### **Northern Forest Memories Imprinted into Clay**

Focuses on designing culturally sustainable creative tourism services. The workshop aims to strengthen human-nature relationships through a multisensory creative experience.

#### **Creating Place-based Sustainable Souvenirs**

Focuses on the design process on how to create a place-based sustainable souvenir that brings visitors closer to places and nature.

**Session format**

3. Panel discussion

**Open or Closed Session**

Open

## **Sustainable Arctic tourism in the context of global transformations (round table)**

Alexandra Nikanorova, Victor Kruzhalin

Faculty of Geography, Lomonosov Moscow State University, Moscow, Russian Federation

### **Theme**

3.3. Arctic tourism

### **Abstract text**

Arctic tourism is one of the priorities for the economic development of the northern territories of the Russian Federation. Issues related with the accessibility of the Arctic for tourists and the development of tourist infrastructure facilities (accommodation facilities, transport infrastructure facilities, objects of tourists' interest, etc.) are sharply raised, taking into account environmental restrictions, severe difficult natural conditions as well as modern trends and challenges.

The purpose of the round table is to discuss the approaches that should be laid down in the conceptual basis of a strategy for the development of Arctic tourism, as well as to outline ways to solve key problems taking into account the general principles of the sustainable development and the arctic ecosystems conservation.

Main topics for discussion:

- The importance of Arctic tourism for the socio-economic development of the Arctic zone of the Russian Federation and other Arctic territories.
- Infrastructure accessibility of the Arctic and challenges of tourist infrastructure facilities development with respect to the principles of sustainable development and ESG
- Development of modern tourist routes and tourist products, taking into account the conditions of transport accessibility and methods of delivery of tourists
- Safety and risks of the Arctic tourism development
- Education and training for sustainable Arctic tourism

### **Session format**

4. Round table discussion

### **Open or Closed Session**

Open

## **Frontiers of Arctic Nature Tourism: Transdisciplinary Approaches to Tourism and Conservation in Northern Remote Areas**

Julia Lajus<sup>1</sup>, Roger Norum<sup>2</sup>, Alexei Kraikovski<sup>1</sup>, Lidia Rakhmanova<sup>1</sup>

<sup>1</sup>Higher School of Economics, St.Petersburg, Russian Federation. <sup>2</sup>University of Oulu, Oulu, Finland

### **Theme**

3.3. Arctic tourism

### **Abstract text**

In some of the world's least developed and under-connected areas, tourism is often indicated as a key tool for sustainable economic development. Nature tourism has in recent years become a primary mode for creation and maintenance of protected areas across much of the Arctic. And yet, while conservationists and scholars have frequently criticized radical initiatives of tourism development for their negative outcomes on local communities and their environments, many policymakers and members of civil society continue to often uncritically embrace neoliberal development strategies which proffer tourism and nature conservation as a panacea for remote communities. To address this paradox, this panel will critically engage with the nexus of contemporary nature tourism and conservation practices in the Arctic, and the ways in which they are understood, implemented and at times resisted. The panel foregrounds transdisciplinary perspectives across a range of fields, addressing conceptual and methodological pathways for bringing studies of conservation practices and nature tourism together with critical research on human-environment relations in the Arctic.

The session is organized in the framework of the international project 'CONTOURS: Conservation, Tourism, Remoteness' funded by [ERA.NET.Rus.Plus](#) but it is open for other participants interested in this theme.

### **Session format**

1. Oral presentations only

### **Open or Closed Session**

Open

## **The potential of Social Media "Big Data" for Arctic Tourism Management**

Tracy Michaud

University of Southern Maine, Portland, USA

### **Theme**

3.3. Arctic tourism

### **Abstract text**

One can learn a lot about a destination from social media, but what can be learned from the Volunteered Geographic Information (VGI) attached to social media posts or on digital devices can be just as significant. VGI allows researchers to trace travel patterns of different groups of people in a place through time. This has proven especially helpful to tourism researchers during the COVID-19 pandemic as collecting VGI data is remote, immediate, tends to be free and found in large quantities ("Big Data"). This session focuses on the application and usefulness of Big Data for tourism management in the Arctic.

### **Session format**

1. Oral presentations only

### **Open or Closed Session**

Open

## **Final category: 3.4. Arctic Cultures**

**36**

### **Supporting our Elders to age in a Good Way: Diverse perspectives on successful and healthy aging from across the Arctic**

Anastasia Emelyanova<sup>1</sup>, Jordan Lewis<sup>2</sup>, Elena Golubeva<sup>3</sup>

<sup>1</sup>University of Oulu, Oulu, Finland. <sup>2</sup>University of Minnesota Medical School, Duluth, USA. <sup>3</sup>Northern Arctic Federal University, Arkhangelsk, Russian Federation

#### **Theme**

3.4. Arctic Cultures

#### **Abstract text**

The Arctic is undergoing rapid sociocultural changes, resulting in people developing innovative ways to age well. Culturally distinct Arctic groups have developed innovative strategies to age successfully within their environments, including arts-based programming, intergenerational activities with Elders and youth, preservation of Arctic cultures through hunting and gathering practices, and other practices supported by NGOs, municipalities, and local communities. This session will offer a panel of presentations featuring studies on successful and healthy aging by Indigenous and non-Indigenous scholars from across the Arctic to highlight culturally unique experiences of these groups. Presentations are welcome from any Arctic territory, in particular Alaska, Russian Arctic, and Nordic northernmost areas.

#### **Session format**

2. Oral and poster presentations

#### **Open or Closed Session**

Open

## **From Traditions to Arctic Arts and Cultures Today**

Timo Jokela, Maria Huhmarniemi

University of Lapland, Rovaniemi, Finland

### **Theme**

3.4. Arctic Cultures

### **Abstract text**

Today, many contemporary artists and designers from the Arctic use and transform traditions related to Arctic landscapes and heritage with the help of modern technologies and are showing their work in international art exhibitions and design expositions, while others work with sustainability politics through art. Contemporary art, performances and media productions tackle themes topical in the Arctic, such as climate crisis, loss of biodiversity and rich Indigenous and other heritage and ecocultural traditions. These themes have relevance in local communities, in villages and communities, as well as on Global decision making.

In the session we hope to discuss how arts can empower the people of the Arctic, enhance cultural pride and resilience and participate in environmental and cultural politics through art. Individuals and communities may grow resilience for facing rapid changes in the Arctic by transform their traditions into a contemporary culture

In order to better recognize and understand the current arts and culture in the Artic, as well as arts' local and global importance, we success the use of the concept of new genre Arctic art when referring contemporary socially and environmentally engaged arts that is integrated into ecoculture. Building on existing ecocultures in Arctic cultures, towns and villages, new genre Arctic arts is an alternative to top-down and nationally curated and coordinated art and cultural projects. We emphasizes that further multiciiliary research in new genre Arctic arts is needed also for the sustainability of arts education at the Arctic universities.

### **Session format**

1. Oral presentations only

### **Open or Closed Session**

Open

## **Arctic Makes III: Responsible governance through embodied experiences**

Svetlana Usenyuk-Kravchuk<sup>1</sup>, Timo Jokela<sup>2</sup>, Glen Coutts<sup>2</sup>

<sup>1</sup>National Research Tomsk State University, Tomsk, Russian Federation. <sup>2</sup>University of Lapland, Rovaniemi, Finland

### **Theme**

3.4. Arctic Cultures

### **Abstract text**

The third in the series of *Arctic Makes* exhibitions continues the educational and artistic activities of the Arctic Sustainable Arts & Design (ASAD) Thematic Network of UArctic. The first two exhibitions - in 2020 and 2021 - showcased the multiple facets of Arctic-evoked creativity and inventiveness in dealing with extremes and remoteness.

Responsible governance of the Arctic is a challenge that finds an important ally in art and design. Experiences of living, learning, and simply being in the Arctic, while embodied through materialities of art and design, can shed new light onto the meaning and content of such essential categories as human capital, environment protection, socio-economic development and political priorities and interests of Arctic states and observers. This field can helpfully convey their experiential visions on what it means to govern the Arctic in environmentally, culturally and socially responsible way(s).

For this exhibition, we invite artworks and design/architectural projects promoting active and responsible engagement with the ways of knowing and modes of acting represented in the wide variety of contexts and situations throughout the circumpolar regions.

The proposed exhibition is aimed at involving various visual media ranging from traditional art and futuristic design posters to mixed-media installations and performances. It is planned to unfold throughout this Congress in different venues in Moscow and/or online.

The detailed call for artistic proposals will be developed and released if the initial proposal is accepted.

### **Session format**

2. Oral and poster presentations

### **Open or Closed Session**

Open

## **Responsible Design for a Sustainable Arctic: Care versus Control**

Svetlana Usenyuk-Kravchuk<sup>1</sup>, Sofia Prokopova<sup>2</sup>

<sup>1</sup>Tomsk State University, Tomsk, Russian Federation. <sup>2</sup>Ural State University of Architecture and Art, Yekaterinburg, Russian Federation

### **Theme**

3.4. Arctic Cultures

### **Abstract text**

The issue of 'care versus control' comes out where there is a responsibility, and therefore control and power can lead to exclusions and further negative manifestations of oppression.

The recent past and present of the Arctic development considered through the lens of Control reveal: an architectural paradigm of 'normalisation', a one-directional way of developing and introducing technologies and broader material attributes of living, e.g. prefabricated housing and heavy northern modifications of vehicles; and a broad subjection of local communities lacking mechanisms to express their opinion and, in the material sense, to take control and responsibility for technologies placed on their land.

In this session, we propose to look at the Arctic through the lens of Care, revealing the alternative priorities such as creativity and self-sufficiency of local communities and coherent well-being of human and nonhuman actors.

By analysing the design and architectural projects and case studies, session speakers are invited to engage with such issues as: the value of the Arctic localities as spots of collective creativity; the meaning and rationality of local technologies and practices that shed light onto implicit aspects of non-biological adaptation to the severe environment; and the value of the Arctic examples as a window into the political role of design as a creativity-driven visionary.

### **Session format**

1. Oral presentations only

### **Open or Closed Session**

Open