

# BUSINESS PROGRAMME for the International Arctic Forum

April 11–13, 2022, Saint-Petersburg

Programme accurate as at March 10, 2022

## Economic Development

### The Russian Arctic Two Year Update

The world's largest special economic zone has been operating in the Arctic Zone of the Russian Federation (AZRF) for over a year and a half now and the business community's interest in obtaining the status of a resident in the AZRF is only increasing. Last year, the number of AZRF residents increased by more than 250 investors, which reflects the appeal of the wide range of tax and administrative benefits that have been offered to its residents. In 2021, the list of preferences for AZRF residents was supplemented with subsidies on loan interest rates and the relaxation of capital investment requirements for small and medium-sized enterprises. However, the climatic features of the Arctic regions and specific issues with the implementation of projects have exacerbated various problems for investors. Is the mechanism of tax preferences for AZRF residents sufficiently effective, or does it need to be further refined? Have entrepreneurs faced a greater administrative burden? What should the main focus be when expanding the list of tax and administrative preferences for AZRF residents? How can the list of administrative and tax preferences be improved to take advantage of the Arctic's main competitive advantages?

## Economic Development

### Raising Finance for Sustainable Development Initiatives in the Russian Arctic

One of the biggest issues associated with the socioeconomic development of the Arctic territories is how to attract sustainable financing for Arctic projects. Ministries, agencies, international organizations, the scientific and business communities, experts, and public organizations need to join efforts to formulate unified and transparent rules of the game and develop a mechanism to unlock and effectively develop the resource potential of the Arctic. What tools are available to stimulate investment activity in Russia's Arctic zone? What is hindering the development of the investment climate in the Arctic region?

## Economic Development

### Sharing Experiences and Best Practices by SMEs in the Arctic

For a long time, policies to develop northern territories have largely focused on support and development for major projects. In recent years, there has been a significant decline in the number of SMEs in the Far North for a number of reasons. Entrepreneurs have been working in a harsh natural and economic environment. Small businesses in the Arctic have highly distinctive features, and now there are more and more unique trends emerging. Entrepreneurs are worried about solving such problems as public administration, development institutions, manpower resources, isolation from transportation, high costs, the availability of funding, limited demand, and administrative barriers. Key measures are currently being taken to simplify the creation and management of business and obtain the status of an Arctic zone resident. All these efforts certainly help to solve existing issues. What are the main objectives for creating infrastructure to support business in the Arctic zone? What opportunities are there to reduce administrative constraints for business in the Far North and the Arctic? What major investment projects can serve as focal points to attract small business?

## Economic Development

### The Present and Future Development of the Arctic's Fishing Industry

The fishing industry in the Northern Fisheries Basin plays a key role in Russia's food security, ranking second after the Far Eastern Fisheries Basin. In 2021, over 540,000 tonnes of fish were caught there, which accounted for 15% of the total Russian catch. During the first stage of investment quotas, orders were placed for the construction of 28 fishing vessels and 10 crab fishing vessels, which will make it possible to replenish 80% of the fishing fleet of the Northern Fisheries Basin once they are completed. However, the risks of the orders not being fulfilled have increased significantly given the unfavourable geopolitical situation. At the same time, there are now greater risks of export markets being closed to Russian seafood and a significant reduction in foreign exchange earnings, as a consequence. What measures need to be taken for the industry to gain greater independence amidst pressure from sanctions? Is this an appropriate time to create a specialized Russian trading platform (a fish exchange)? What measures should be taken to transition to import substitution and start manufacturing equipment and components for fish processing and ship equipment? What new markets are available for Russian seafood in the current environment? Who could become alternative suppliers of equipment and components for the needs of the fisheries industry?

## Economic Development

### **Green Energy in the Arctic**

The Arctic Zone of the Russian Federation (AZRF) contains a quarter of the country's domestic oil reserves and more than 70% of its gas, which are worth USD 20 trillion, according to preliminary estimates. They could account for 20–30% of oil production by 2050. However, the vulnerability of the Arctic's natural ecosystem as well as its harsh weather and climatic conditions, remoteness, and poor infrastructural development pose a challenge to the existing working principles and require brand new organizational and technological solutions. Hydrogen and renewable energy could become some of the most important elements in terms adapting the Arctic's energy infrastructure to climate change. Oil and gas companies and other energy companies operating in the Russian Arctic are already incorporating the UN Sustainable Development Goals into their development strategies and highlighting a set of priority goals. Are the companies that are implementing projects in the AZRF prepared for the energy transition? What resources should be used to develop green energy and what factors are hindering the development of green projects in the AZRF? What projects in the AZRF are capable of changing the energy market over the next three to five years and becoming a component of the region's carbon neutrality programme? What drivers will help accelerate the development and use of technologies, including ones that aim to reduce harmful emissions from APG flaring, for projects in the Arctic? How can we create a unified Arctic green industry cluster? What effective practices and technology partnerships are available in the era of energy transition, and how can experience smoothly be exchanged with international green energy companies?

## Economic Development

### **Strategic Subsoil Use: Mining and Sustainable Development in the Arctic**

The Arctic is a space of discoveries and achievements, and the site of Russia's latest victories. The Arctic territory is where all the most pressing current issues are intertwined: geopolitical interests and climate change, the development of the domestic economy and the integration of global markets, and the development of advanced technologies and environmental protection. Geology and subsoil use play a key role in the advanced development of the Arctic expanses, given their responsibility for developing the strategic reserves of the mineral resource base. What prospects are there for developing mineral resource centres that have already been established in the Arctic, such as on the Kola Peninsula, Yamal, and Taimyr, and for the production of gas, phosphates, copper, nickel, platinum, and rare metals? What new mineral resource centres are currently taking shape in this region? What is the comparative cost of geological exploration in the Arctic and on the Arctic shelf, and is it justified to explore these areas? Are there any government support mechanisms for companies, and what else can be done to raise investment for Arctic greenfield projects? What measures could be taken to implement existing and create new international projects in the Russian Arctic? In terms of import substitution, have we developed new proprietary technologies for geological exploration on the Arctic shelf over the past five years? What is the forecast regarding the resource potential that is expected from public and private exploration in the Arctic? Can we expect new discoveries, including strategic mineral deposits?

## Economic Development

### **Spatial Data Infrastructure for the Arctic**

The digitalization of management processes and the socioeconomic development of the Arctic region, as well as the solution to numerous practical problems in various areas, involves the use of up-to-date spatial data. At the international level, the relevant UN committee determines the role of digital geospatial information. This is the most important information resource with proven value for socioeconomic development and environmental protection, which allows for the integration of government systems and services, as well as national development initiatives. Sectors in need of geospatial data and services include land and water management, agriculture and forestry, and transport infrastructure development, among others. The Russian government has included the creation of the National Spatial Data System (NSDS), which will become a key tool for spatial development, in its list of socioeconomic development initiatives for the period until 2030. Digital services will be created for citizens, businesses, and the authorities based on the NSDS. International cooperation and joint projects to increase the availability of spatial data to improve the quality of monitoring and decision-making are of particular importance for the Arctic region. Since 2009, the mapping services of Arctic Council member countries have been implementing the project 'Spatial Data Infrastructure of the Arctic Region'. As part of this project, a geoportal based on international standards was created to provide access to a single electronic cartographic basis for the Arctic region, as well as thematic data and services provided by the Arctic Council and other interested organizations. What experience has been gained from creating spatial data infrastructure and geospatial services, and how can we increase the benefits of using spatial data infrastructure to develop the Arctic region?

## Economic Development

### **Creative Economy in the North. Cultural and Historical Heritage as the Basis of a Modern Brand**

One effective method for shaping a local identity, increasing competitiveness, and creating a favourable image of the regions is to develop creative industries. Design, cinema, music, architecture, gastronomy, and new media are becoming points of economic growth. Creative industries based on a region's symbolic capital (historical and cultural traditions, ethno-cultural diversity, and heritage) are an important marker of territorial uniqueness. They shape a recognizable image of a region or a country as a whole and create the basis for international cooperation. Creative entrepreneurship helps to form an attractive investment climate, promotes positive dynamics in the social sector, and also opens up great opportunities for alternative employment, including for women, youth, and people with disabilities. What conditions and infrastructure are needed to develop creative industries in the northern territories? Can local culture and heritage contribute to the creation of unique competitive products and promote the lifestyle of northern peoples? How do creative industries change the wellbeing of a person living in the north? What role does the development of creative industries play in the competitiveness of northern territories?

## Improving Living Conditions in the Arctic

### **Priorities for Medical Care in the Arctic and Maintaining a Healthy Population**

The provision of quality medical care to residents of the Arctic in the way we are accustomed to is difficult due to the sparsely populated territory and the scattered nature of settlements. The main problem has become attracting healthcare personnel. It is crucial to find harmonious solutions that can either develop the existing principles of healthcare management or introduce new mechanisms, while ensuring a seamless transition period and new models for funding medicine. Should we continue using universal standards to provide medical care in the Arctic, or would it be better to develop special (Arctic) standards that take into account the unique features of this territory? If so, what should they be? How can we ensure the quality and availability of medical care in the Russian Arctic?

## Improving Living Conditions in the Arctic

### **Is Comfort at -50°C a Realistic Prospect?**

One of the things that makes the Russian Arctic unique is that it has large cities, whereas other countries in this region mainly have small or rotational forms of settlement. Furthermore, the Russian Arctic features a high degree of urbanization: almost 90% of its inhabitants are urban residents who have regular demand for comfort, convenience, safety, and a high quality of services. However, the region's unique and extreme natural and climatic conditions have a significant impact on construction and the development of an urban environment, which makes it difficult or even impossible to effectively implement infrastructure projects. In addition, the harsh climate has a negative impact on the psychological and emotional health and satisfaction of local residents. So can we live comfortably in the North or do we need to adhere to the paradigm of minimizing contact with the environment by creating closed engineering and architectural solutions (a dome)? How can we support Arctic cities on their difficult path towards urban development? How can we develop an integrated process to improve settlements that are in a state of decline? How can we achieve the same level of environmental quality in the Arctic as the national average? What specific tools are there for working with the environment of the North? How can we solve the problem whereby regulatory documents concerning construction and urban land improvement are not consistent with the needs of the North? Does a city need open public spaces in such a harsh climate? How have ideas about the best architectural and planning solutions for the Arctic changed, and what new forms are now being recognized in northern architecture?

## Improving Living Conditions in the Arctic

### **International Experiences and Best Practices for Urban Development in the Arctic**

Urbanization has occurred in the Arctic largely due to the industrial development of the region. In the Arctic settlement system, not only cities, but also small settlements serve as bases for the development of vast areas of resources, ensure the stability and adaptation of personnel, and perform important social functions. Due to the importance and uniqueness of their functions, many of them serve as bases for the development of the entire Arctic territory. Since many settlements in the Arctic have a close relationship with resource territories that are 'beholden' to them, industrial enterprises play an unprecedentedly prominent role in their development. Business and its corporate social responsibility programmes often become a tool to support key settlements in the Arctic and drivers of large-scale changes in them. The example of Norilsk's renovation shows that such changes can only take place with the joint efforts of both business and the government. Why should a business invest in the development of the territories where it operates? What tools and mechanisms can the experience of other countries offer? Do companies and the government need new cities? How can we take a systematic approach in this regard?

### Improving Living Conditions in the Arctic

#### **The Extraordinary Arctic Creating A New Magnet for Tourists**

Arctic tourism is a powerful magnet for attracting tourists and a significant source of income that is comparable to industry and transport in terms of its scale. The tourism industry could become an important and sustainable component in the socioeconomic development of all regions of the Russian Arctic, which will help lay the foundation for and create modern trends in the development of Arctic tourism, highlight the identity of the territories, and shape a portrait of a responsible tourist. Tourists from all over the world are attracted by the natural beauty of the Arctic. They are able to see this amazing and mysterious land with their own eyes and learn about the unique culture, way of life, and traditions of the indigenous peoples of the North. Cruise tourism is one of the most promising types of tourism in the Russian Arctic. Such gems as the Franz Josef Land Archipelago, Wrangel Island, and the Taymyr Peninsula attract travellers who are ready to pay a high price for such a trip. At the same time, there are regularly such issues as a shortage of ships, the safety of navigation, the readiness of coastal infrastructure, the openness of certain water sections for cruise ships, and making arrangements for the disembarkation of passengers.

### Improving Living Conditions in the Arctic

#### **Children of the Arctic: Knowledge of Ancestors – the Foundation of Innovation. Education and Traditional Cultural Values of the Children of the North**

History is cyclical. Global trends in environmental care, the concept of responsible consumption, healthy eating practices, and harmonious existence with nature are closely related to the historical way of life of peoples of the Arctic. But whereas in the past life 'in the tundra' was exotic, it is now taking on a new form as transport infrastructure and communication technologies develop. COVID-19 has shown that we can live and work anywhere with the Internet. Online training and even online medicine are available, and there are delivery services. So why not live in a place where the philosophy of harmony with nature still reigns supreme? Live in such a way that you can preserve the identity of the peoples of the Arctic in the era of globalization. Experts in this session will discuss an international project on the 'Children of the Arctic' information and educational portal as well as the new values that are taking shape around the established traditions of the peoples of the Arctic. Everything was conceived before we came: what can we learn from the indigenous inhabitants of the Arctic? New meanings: what specialists can reach their potential in the North? A look into the future: what would you like the North to look like in ten years? Is ethnotourism a new driver of the Arctic economy?

### Improving Living Conditions in the Arctic

#### **Using the Arctic's Humanitarian Heritage as a Resource for Global Dialogue: The Practice of Museum Projects**

The Arctic has always been a region of ideas, where human creativity and creative energy have been expressed for centuries. The roundtable is dedicated to the humanitarian development of the Arctic, an analysis of the role that museums play in preserving its cultural and historical heritage, as well as an understanding of current trends in international cooperation in the Arctic as part of museum, cultural, and educational projects. The humanization of the Arctic regions is becoming a new trend and a necessity of the 21st century. What kind of humanitarian resources does the Arctic have? What can society gain from developing humanitarian resources in the Arctic and for the Arctic? What successful practices and barriers exist for integrating the experience gained by museums of the circumpolar zone, and how does such integration contribute to individual cultural institutions, local communities, countries, and the global world today? How are museums involved in the dynamic changes that are taking place in the Arctic region and what is their role in these changes today?

### Improving Living Conditions in the Arctic

#### **The Arctic Hectare: People's Stories**

Russia's Hectare in the Arctic programme offers new land with great potential and unique opportunities to people not only living in the Arctic zone, but to all Russian citizens. The programme was introduced in August 2021 and has already established itself as an effective tool for the socioeconomic development and support of the northern territories. The programme's interim results have identified clear leaders among the regions in the Arctic zone. What is the Murmansk region's experience in developing household plots and individual housing construction on the new hectares? How has the life of Murmansk residents changed with the advent of the Hectare in the Arctic programme? How is the Republic of Karelia implementing tourism and recreation projects on land plots received under the programme? What is the international experience of Alaska and Norway in developing the northern territories?

### Improving Living Conditions in the Arctic

#### **Sport in the Arctic**

The government's goal is for 70 percent of the Russian population to become involved in sports by 2030. What progress has been made in achieving national goals in sports in the Arctic zone? What sports programmes are being implemented by leading companies in the regions where their enterprises operate? What measures are being taken to develop national sports that are part of the cultural code of the peoples of the North? Are these territories ready to host high-profile international competitions, and what role does sport play in enhancing the tourism attractiveness of the Arctic zone?

### Improving Living Conditions in the Arctic

#### **Preserving Indigenous Traditions**

Indigenous peoples live in more than 90 countries around the world. This includes 47 indigenous peoples in Russia and more than a third of them traditionally live in the Arctic. Indigenous peoples have made it their shared priority to preserve their original habitat, ties with their lands, culture, and their unique socioeconomic way of life. Achieving these goals depends on the effectiveness of international cooperation, the efforts of government structures, the social responsibility of business, as well as indigenous peoples' own activities. What are the priorities of Russia's chairmanship of the Arctic Council, state regulation practices, corporate business policies, projects to ensure the sustainable development and rights of indigenous peoples, as well as the indigenous peoples' own view of their priorities in the constantly changing modern world?

### Improving Living Conditions in the Arctic

#### **The State, Business, and NPOs: How Can We Improve the Quality of Life of People in the Northern Regions?**

Heavy migration of people from the Arctic regions has resulted in an increase in the number of uninhabited settlements, the worsening of demographic problems, and a shortage of personnel in socially significant professions. Companies in the Arctic can partially solve staffing problems by bringing in shift workers. However, experts believe that in order to solve the problem of the outflow of the population, it is essential to create comfortable living conditions and infrastructure, develop business, and make the region attractive to investors. Non-profit and public organizations, foundations, and CSR programmes make a significant contribution to improving people's quality of life and also enhance the appeal of the Arctic for young people by creating conditions for education and development, informing them about economic opportunities in the region, holding career guidance events, and also forming a talent pool in the regions. What difficulties do organizations face when making social investments in the regions? How can we build sustainable interaction between the government, NPOs, and companies to attract people to the Arctic region and retain them?

### Improving Living Conditions in the Arctic

#### **Energy of the Eurasian Women's Forum. Women's Role in Developing Arctic Territories**

Today, the Arctic is not only a territory of minerals, oil, and gas, but also a territory of indigenous culture, art, music, scientific and technological solutions, and projects in the development of human capital. The northern territory is traditionally associated with male characters, but there is a high level of gender equality in the Russian Arctic. The ratio of women to men is about 49% to 51%. In overcoming social stereotypes about gender roles, many women have tied their lives to the Arctic from the very outset of its active exploration and development. In the modern realities, women are also actively involved in preserving the unique ecosystem and identity of the Russian north, as well as in designing the future of the Arctic. What role do women play in developing the Arctic region? What projects are women implementing to develop and preserve the northern territories? What professions and career opportunities are there for women? How can we create favourable conditions to build an identity, taking into account the climatic and cultural features of the Indigenous Peoples of the North? What mechanisms should be implemented to promote inclusion, equality, and social cohesion as well as to ensure the identification of Arctic culture?

### Science and Education

#### **The Development of Cutting-Edge Technology and the Digital Transformation in the Arctic**

Today, everyone's lives can be improved by providing high-tech medical care, creating a comfortable living environment that takes into account the natural and climatic features of the territory in which they live, and encouraging industrial production and the attraction of new investors. The development of artificial intelligence technologies, space communication technologies, satellite services, smart urban management technologies, and modern telecommunications infrastructure are the main focuses in the

strategies for the digital transformation of the priority sectors of the economy of Russia's regions in the Arctic region, which help to achieve this.

#### Science and Education

### **Cutting-Edge Technology for Ensuring Comprehensive Safety and Security in the Arctic**

One of the main focuses of Russia's state policy in the Arctic is to ensure that the population and territories of Russia's Arctic zone are protected against natural and man-made emergencies. However, the pace at which emergency and rescue infrastructure is developing is not consistent with the growth rate of economic activity in the Arctic zone, which is a threat that creates risks for the development and national security of the region. Today, the manpower and resources that are used to respond to various emergencies are located directly in the Arctic zone, or in the subarctic regions. They have different departmental affiliations, and it is essential to unify them under one coordinating body. Severe climatic conditions and underdeveloped transport infrastructure significantly complicate the response of rescue services to various emergencies, accidents, and incidents. In the White, Barents, and Kara Seas, there are roughly 18,000 potentially dangerous underwater objects that pose a nuclear, radiation, and chemical hazard. Their existence adversely affects the environmental safety of the Arctic zone, as well as navigation along the Northern Sea Route, and requires constant monitoring of their condition and readiness to respond in the event of an emergency, including in difficult ice conditions. What equipment and technologies do rescuers have in the Arctic? How can we counter the severe weather and climatic conditions? How should we ensure the safety of navigation along the Northern Sea Route and in the energy sector? How should rescue operations be conducted at sea and on land in the Arctic zone? What are the main principles for establishing and managing an interdepartmental rescue group?

#### Science and Education

### **Fostering International Partnerships in High-Latitude Regions**

The Arctic ecosystem is currently undergoing a significant transformation due to climate change and manmade factors. High latitudes are still an understudied and hard-to-reach territory for science. However, it is crucial for environmental, economic, and social reasons to regularly obtain new knowledge about the nature of these ongoing changes and to also update scientific research about the Arctic. Conducting modern fundamental and applied research as part of international cooperation is the only thing that will make it possible to obtain the information needed for the effective and safe development of the polar region. But several questions need to be answered in order to determine the prospects for continuing to study the high-latitude Arctic. What focuses and methods of research activities are the top priority? What prospects can be opened for Russia and the world as a result of Arctic expeditions? What is the optimal way to build up international scientific cooperation? How can we effectively organize the work of drifting stations, and why are remote methods not sufficient?

#### Science and Education

### **Is a Career in the North an Adventure or Pragmatic Choice?**

The Arctic zone is a priority area for geostrategic development. However, there is much concern about who will carry out this development? Today, young people are being counted on as the most mobile and creative social group in matters concerning the development of territories. Yet, according to sociological studies, young people have four major concerns: personal fulfilment, employment, an understanding of the region's future, and living there. How is the Arctic responding to these challenges? How can we attract human capital to work in the regions of the Far North? Why is there an outflow of human resources in the social sector (health and education)? What measures will help attract to and retain workers in the Arctic?

#### Science and Education

### **New Transport Technology for the Arctic**

Overcoming long distances and using transport in the Arctic is always more difficult than 'on the mainland'. The harsh natural conditions mean there are stringent requirements for equipment used to transport people and goods in the region. Such equipment must be adapted to extreme weather conditions, water barriers, and snowdrifts and also meet environmental standards so as not to damage the natural surroundings. But even modern technology that has been adapted to the harsh off-road realities of the Arctic is not sufficient. Drivers need to be trained in the specifics of driving in the region. Skilful driving helps to traverse difficult routes and deliver goods more quickly, saves fuel, and optimizes logistics overall. What new transport technologies are currently being used in the Arctic? How should Arctic drivers be trained and why is this necessary? Who particularly needs to know how to drive in the Arctic? Who should develop the technology for training Arctic drivers?



## Science and Education

### **Groundbreaking Initiatives in the Arctic**

The Arctic economy and social sector cannot be developed without exciting, breakthrough scientific and technical projects in a wide range of disciplines. Prominent initiatives are needed to introduce high-tech developments made by universities, scientific organizations, and industrial companies to benefit people in the Arctic. We need ambitious goals and proper solutions. What are the stated goals and the quantitative and qualitative assessments of the breakthrough scientific and technological projects being implemented today? What prospects are there for cooperation between science and industry in new high-tech global initiatives? In what disciplines can successful Arctic developments serve as a driver to achieve leading positions on the Russian and global technology market, and not only in the Arctic?

## Science and Education

### **The Role of World-Class Scientific and Educational Centres in Implementing Arctic Projects**

In summer 2021, the Russian government selected and established a network of world-class scientific and educational centres that aim to ensure that Russia is among the world's top five countries in research and development in focus areas that are deemed to be priorities in scientific and technological development based on the integration of universities and research organizations and their cooperation with organizations working in the real sector of the economy. Arctic projects are part of the programme of activities of several scientific and educational centres. The high cost and risks of implementing Arctic projects require established world-class scientific and educational centres to strengthen interregional cooperation. Is the agenda of world-class scientific and educational centres consistent with the priorities of the strategy to develop the Russian Arctic until 2035 and the sustainable development goals? How can we close gaps in the implementation of Arctic projects based on the 'Business – Science – Education' model? What support measures exist for scientific and educational centres that are engaged in activities in the Russian Arctic? How can we encourage businesses to take part in Arctic scientific research? What are the prospects for scientific and educational centres to implement interregional Arctic projects?

## Science and Education

### **Prospects for Russian-Asian Scientific and Educational Cooperation in the Arctic**

The sustainable development of the Arctic region is not just a national, but a global goal that requires the establishment of productive international cooperation between both Arctic and non-Arctic countries that are interested in the region. Asian countries are increasingly showing particular interest in the opportunities available in the Arctic region. Today, universities around the world are among the key drivers of regional development, as they strive to contribute to the achievement of the Sustainable Development Goals (SDGs) that the UN adopted in September 2015. More than 50 Russian universities have educational and scientific ties with 18 organizations from Asian countries as part of the 'University of the Arctic' international network, most of which are universities in China. What problems and prospects exist for creating fundamentally new formats of interaction between the leading universities of Russia and Asian countries, taking into account the new geopolitical challenges and the rapidly changing agenda of international cooperation in the Arctic. Can scientific cooperation be intensified? What prospects are there for creating joint educational programmes and priority focus areas in scientific research to consolidate efforts towards achieving the sustainable development goals of the regions of the North and the Arctic?

## Logistics Development in the Arctic

### **The Northern Sea Route Transit Capabilities**

The launch of the first stage of international transit in 2025 will make it possible to create a regular container line between the countries of the Asia-Pacific and Europe and increase transit traffic along the Northern Sea Route (NSR) from the current 1.3 million tonnes to 30 million tonnes by 2030. With this goal in mind, in the next few years, ice-class container ships will be built, and two transport and logistics hubs will be created in the Murmansk Region and Primorsky Territory in an effort to integrate this route into the international trading system. What impact could this project have on the global economy and the economy of the Russian Arctic?

## Logistics Development in the Arctic

### **Ensuring Sustainable and Safe Shipping Operations along the Northern Sea Route**

The main priorities for developing the Northern Sea Route (NSR) should be the security and environmental safety of navigation. It is particularly crucial to preserve biodiversity and minimize the manmade impact on the environment, possibly with close cooperation between the state and business to adopt comprehensive measures to create an effective environmental monitoring system. Pilot environmental monitoring studies conducted by specialists from Moscow State University's Marine

Research Centre along with an international group of experts are the first stage of major efforts to ensure environmental safety on the NSR and will help to form an objective assessment of the sea conditions for the subsequent preparation of recommendations for all users of the NSR. Can we obtain the maximum economic benefit from the development of the NSR, while also ensuring its environmental safety?

#### Logistics Development in the Arctic

### The Development of Infrastructure for the Northern Sea Route

The development plans for the Northern Sea Route (NSR) in the period until 2030 involves creating a new global transport corridor that will connect Asia-Pacific countries with Europe and also ensure the efficient and safe transportation of goods. The NSR is not only 40% shorter than the route through the Suez Canal, but also allows ships to travel from Shanghai to Rotterdam in eight fewer days. High-class Arctic vessels are gaining more and more experience each year from navigating the Arctic waters. Experimental early and late season voyages by NOVATEK and Sovcomflot vessels along the NSR in winter without an icebreaking escort proved that year-round navigation will be possible in the near future. Whereas total cargo traffic via the NSR was only 4 million tonnes in 2014, it had spiked to 33 million tonnes by the end of 2020. Cargo traffic is projected to reach 80 million tonnes per year in 2024 and 150 million tonnes in 2030. In an effort to support the NSR, infrastructure will be built and modernized, including port facilities and icebreaking, cargo, and rescue fleets, a satellite constellation will be created to serve the interests of NSR users, and rescue and assistance systems for ships will be modernized throughout the transport corridor. What impact will this infrastructure development have on the Russian Arctic? What are the main issues that need to be addressed?

#### Logistics Development in the Arctic

### International Seminar on Shipbuilding and Ship Repair in the Arctic

It is only possible to increase the volume of international traffic and promote the competitiveness of the Northern Sea Route (NSR) on the global market, while also taking into account the need to ensure the environmental safety of transportation, by building new ice-class ships that have new green technologies and run on eco-friendly fuels. Given the future increase in the number of ships on the NSR route, shipbuilding and ship repair needs to be developed, and the system for training a highly skilled professional workforce needs to be updated. What prospects are there for international cooperation in building ice-class ships? What problems and prospects are there from developing a market for ship repair services in the Arctic? How would an increase in the number of high-class ships affect shipping in the Arctic?

#### Logistics Development in the Arctic

### Prospects for the Development of the Polar Aviation Sector

Aviation plays a key role in the Arctic's transport accessibility. Air transportation is often the only way to get to the remote corners of this part of the planet. Cargo and mail are delivered by air. The challenges we face today are placing new demands on aircraft operating in the Arctic. Many experts believe the region's future development will hinge on the successful implementation of unmanned aircraft projects. Arctic airports are major transport hubs and play a strategic role as alternate airfields for the global aviation industry on transcontinental, trans-Siberian, and trans-Arctic routes. The international community attaches great importance to the development of an airfield network in the countries of the Arctic region. Budgetary funds and private investments are being raised to modernize existing and build new airports in the region. What should a modern airport in a hard-to-reach settlement in the Arctic look like? What is the acceptable minimum for providing air navigation and meteorological equipment at Arctic airports?

#### Environmental and Climate-Related Issues in the Arctic

### Environmental, Social, and Corporate Governance (ESG) in the Arctic: The Present and Future

In recent years, the ESG agenda has become increasingly important in the global economy: leading industrial enterprises have announced that they are transforming based on the principles of sustainable development, investors have been paying increased attention to non-financial reporting, and banks are developing green financing programmes. ESG principles also dominate in the public space. They are receiving more attention from governments and the public and are becoming a competitive advantage, as external factors influence corporate management models. In the unique natural and social conditions of the Arctic, a fundamentally new approach to doing business is also taking shape that takes into account the sustainable development criteria. However, the jury is still out on the optimal focuses and specific aspects of global ESG transformation among those involved in activities in the Arctic and their willingness to bear the corresponding costs. How can we find and maintain a balance between economic efficiency and the interests of social and environmental development? How should we assess the responsibility of business in the Arctic from among the wide range of rating criteria and standards? How do the best global and Russian ESG practices work in the Far North? How are ESG principles being



integrated into regional development strategies? How can small and medium-sized businesses navigate the rules set out by the codes of large companies? How do sustainability indicators impact Arctic supply chains? How can we ensure the transparency of 'non-financial reporting', what role does it play in making investment decisions, and what role does green lending play in supporting Arctic enterprises? How should we support the ESG transformation in the Arctic in terms of technology?

#### Environmental and Climate-Related Issues in the Arctic

### Careful Approaches and New Technologies in Waste Management

The development of an integrated system to handle waste of all hazard classes and the construction of modern eco-friendly waste processing complexes are among the main goals for ensuring environmental protection and safety in the Russian Arctic. One of the target indicators reflecting the achievement of Russia's national goals for 2030 is the creation of a sustainable municipal solid waste management system that ensures 100% waste sorting and cuts in half the amount of waste sent to landfills. For this reason, the creation of an integrated waste management system in the Arctic zone should ensure that the national goal indicators are achieved. What results have been accomplished by the implementation of the national Ecology project in the Russian Arctic? How are waste management systems being introduced in the territories of the Russian Arctic?

#### Environmental and Climate-Related Issues in the Arctic

### Making Infrastructure Safe and Managing Risks as the Permafrost Thaws

For Russia, where permafrost occupies more than 60% of the country's territory, the problem of its thawing is particularly acute. The Arctic regions are strategically important territories for Russia, where large-scale projects are being implemented. Warming affects many processes: it alters landscapes, deforms river banks, waterlogs soils, and increases the frequency of floods and landslides. Manmade impacts and climate change result in the degradation of permafrost and processes that increase the risk of the deformation or destruction of the infrastructure of cities and industrial enterprises located in these territories. How can we ensure the safe operation of residential buildings, industrial facilities, and structures in the Arctic? What are the most effective ways to adapt to permafrost changes? What are some of the special aspects of construction and soil stabilization technologies?

#### Environmental and Climate-Related Issues in the Arctic

### Raising Radioactive and Dangerous Objects in the Seas of the Arctic Ocean

Russia has begun carrying out the initial phase of work to take practical actions to eliminate the most dangerous flooded objects that contain nuclear materials. The Arctic Council and the global community are closely following developments in the Arctic Ocean. What progress has Russia made in cleaning up the Arctic? What is the current situation with the objects that were flooded in the 1980s? What kind of environmental rehabilitation work are Russian organizations performing? What technical methods are used to handle flooded objects? How are international organizations involved in cleaning up the Arctic? What are the next steps that Russia needs to take to achieve the goal of rehabilitating the region?

#### Environmental and Climate-Related Issues in the Arctic

### Climate Change Trends and Risk Management

The global community believes that the risks driven by climate change are among the most significant risks threatening the world both now and in the coming decades in terms of their likelihood of materializing and the anticipated scope of damage. Climate change, in addition to the natural disasters that have been seen more frequently, affects demographic and social processes, migration, health, lifestyle, and employment. How do climate risks affect the sustainable development of the Arctic? How do different sectors of the economy assess climate risks? What approaches to climate risk management are being taken in the Arctic regions?

#### Environmental and Climate-Related Issues in the Arctic

### Arctic Nations Contribute to Preserving Biodiversity

The Arctic zone features extreme natural and climatic conditions, high sensitivity of ecological systems to external influences, and significant climatic changes that have become much more pronounced in the last decade than they have in other climatic zones, which entails new risks for biological diversity. Commercial activities and climate change in the Arctic zone create global risks that could have adverse environmental consequences for the environment and environmental safety in the Arctic and the preservation of Arctic ecosystems as well as Arctic flora and fauna. While striving to reduce the negative impact on the Arctic environment, eliminate the negative consequences of commercial and other human activities, study and assess the impact of such consequences, and reduce the risk of harm to Arctic biodiversity, states are nevertheless increasing the pace of commercial development in the Arctic.

According to ecologists, when vulnerable Arctic territories and water areas are developed, an area that is several times larger should be allocated as a protected area (including specially protected natural areas) to maintain environmental safety in the Arctic. Is it possible to harmonize the processes of commercial development and the conservation of the sensitive biological diversity of the Arctic? Are states ready to allocate large territories and water areas to create specially protected natural areas in the Arctic? Can governments, business, and society hold a dialogue to address issues concerning the conservation of biological diversity in the Arctic? Who should be responsible for eliminating the damage that has accumulated in the Arctic? How are modern technologies being used to preserve, study, and monitor Arctic biodiversity? What are some promising areas for cooperation between Arctic states to preserve the region's biological diversity? What role do public institutions play in conserving biological diversity and developing the Arctic?

Business Dialogue

### **Prospects for Russian-Asian Cooperation in the Arctic**

Countries that are situated far from the polar latitudes are paying increasing attention to the unique economic potential of the Arctic, the ramifications of global climate change in the region, the need to use eco-friendly technologies, and improvements to the social conditions of people living in the North. These new opportunities and challenges create prospects for intensifying international cooperation in the Arctic. Improving the quality and accessibility of educational and medical services in the region, preserving the traditional economic activity and cultural heritage of the indigenous population, environmental monitoring and adapting to warming around the world, the responsible use of resources, ensuring stable and safe international maritime traffic, and creating tourism opportunities are just a few of the potential areas for cooperation between Russia and Asian states. What opportunities do Asian countries see in the Arctic? How can they contribute to the sustainable development of the region? How can we effectively organize international cooperation?

International Cooperation in the Arctic

### **The 3rd Northern Forum Governors' Summit**

The Northern Forum is adopting a new strategy (Northern Forum 2030) and striving to realize its potential to fully represent regions and business partners in discussions concerning the policy in the Arctic and beyond. What approach should be taken to put the new strategy into practice at all levels? How can the new Northern Forum make better use of its observer status in the Arctic Council? What approach should the Northern Forum take to cooperation with the other main participants in the international Arctic region and the northern agenda? How can tangible, visible actions be taken to support external and internal recognition? What actions can demonstrate the advantages of membership in the Northern Forum to regional leaders and businessmen?