The Northern Sea Route as a Field of Deferred Russia-South Korea Cooperation

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DOI: 10.31278/1810-6374-2026-24-3-208-223

Abstract
This article analyzes the prospects for cooperation between Russia and South Korea in developing the Northern Sea Route (NSR) under sanctions. Russia views the NSR as a key element of its long-term geo-economic strategy, one that contributes to the development of logistics, resource exports, and the Arctic. South Korea—with significant capabilities in shipbuilding, maritime logistics, and other relevant spheres—has displayed interest in the NSR, but is currently constrained by its alliance obligations to the West, including the West's anti-Russian sanctions regime. This article examines Seoul's

official policy towards the Arctic and the NSR, as well as South Korean experts' and corporations' views on the NSR as a future strategic option. The authors suggest 'deferred cooperation' between Russia and South Korea: development of technological, infrastructural, and expert-level cooperation, but without direct investment. The article especially focuses on pilot projects and institutional preparations for greater future cooperation. The authors maintain that, even under the current sanctions regime, the sides can and should build a foundation for fully fledged cooperation on the NSR in a more favorable future international environment.

Keywords: Northern Sea Route, Arctic, Russia, South Korea, sanctions, geo-economics, maritime logistics, deferred cooperation, international cooperation.

In recent years, the Northern Sea Route (NSR) has firmly established itself as one of Russia's key long-term projects: not only a transport artery, but part of a broader Arctic policy that integrates logistics, resource exports, energy infrastructure, and the spatial development of northern territories (Presidential Decree, 2020). In this sense, the NSR is a long-term geo-economic project.

The NSR's development is proceeding under severe external constraints, primarily sanctions, which have significantly limited opportunities for international cooperation, and increased Russia's dependence on a limited number of partners. This increases the need for diversified external relations that can supply strategic options in the future.

In this context, the intersection of South Korean and Russian interests in the Arctic and the NSR is of special relevance. South Korea holds strong positions in maritime logistics, shipbuilding, and complex infrastructure projects. But Seoul's cooperation with Russia has in recent years been restrained by commitment to Western sanctions.

However, reducing South Korea's position on the NSR to the lack of practical cooperation would be an oversimplification. Since June 2025, South Korea's new government has displayed interest in rapprochement with Russia, North Korea, and China (while maintaining the alliance

with the U.S.). Notably, development of the NSR has been included in the new government's key objectives (National Policy Tasks, 2025, p. 118).

South Korean experts and businesses are also discussing the NSR as a promising opportunity to transform global logistics and ensure South Korea's long-term national interests. Such discussions do not displace government policy, but can serve as a basis for planning longer-term cooperation.

This article discusses how Russia-South Korea cooperation in the Arctic can be conceptualized amid the current political and economic restrictions. Particular attention is paid to the approaches of the South Korean government, experts, and businesses. We describe possible medium- and long-term 'deferred cooperation' between Russia and South Korea regarding the NSR, which for now would involve the development of various options and the enactment of measures to lower future transaction costs.

THE NORTHERN SEA ROUTE IN RUSSIA'S GEO-ECONOMIC STRATEGY

Official Russian documents and policy increasingly describe the NSR not as a backup transportation route, but as an independent infrastructure axis. It is part of a broader strategic project, the Trans-Arctic Transport Corridor (TATC), intended to become a year-round logistics artery and the shortest sea route between Europe and Asia. The TATC also includes major rivers, railways, and roads in the Arctic (Kraev, 2026).

Economically, the NSR transports energy and other resources from Russia's Arctic, and is thus necessary for the realization of major resource-extraction projects in the region. It will complement existing global logistics corridors. And it is linked to the development of Russia's technological and energy autonomy, including the construction and modernization of Russia's own icebreakers and port infrastructure.

However, the NSR's high capital intensity and its technological complexity, as well as the need for investment that is long-term and reliable, narrow Russia's choice of partners. Sanctions have further reduced Russia's access to Western technologies, financing, and insurance. Russia's critically-important Arctic agenda thus needs a diversification of external partners—not for immediate project

implementation, but for medium- and long-term cooperation. South Korea could be useful here, even while maintaining its own interests.

SOUTH KOREA'S ARCTIC POLICY

Main Contours

South Korea's polar research policy took shape later than that of other Arctic states. However, in recent decades, Seoul has transitioned from an observer to a full-fledged participant in international activities in the polar regions. Notably, South Korea's Arctic policy combines research, economic, and diplomatic objectives, and (lacking direct access to the region) relies on international cooperation and the country's technological advantages.

South Korea's polar policy dates to the late 1980s, when research infrastructure and dedicated scientific institutions were created. Since the late 1990s, economic factors have intensified interest in the Arctic: South Korea's export-oriented economy is almost entirely dependent on maritime transportation, hence the importance of new transport routes (primarily the NSR). Since Arctic phenomena influence Korea's climate, South Korea also has an interest in climate research there.

A key feature of South Korea's approach is its treatment of the Arctic and Antarctic as interconnected areas of research and economic activity. South Korea focuses on areas of competitive advantage: shipbuilding, maritime logistics, polar technologies, and scientific research. By creating an icebreaker fleet and research stations, and participating in international scientific programs, South Korea has gained a firm foothold in the system of global polar cooperation (Kiriyanov, 2023).

With Seoul's acquisition of observer status in the Arctic Council in 2013, its policy became more institutionalized. Its plans have shifted from purely scientific (international cooperation and research) to also economic (transportation, resources, and technology).

In 2022, the *Law on Stimulating Activities in Polar Regions* enshrined the government's responsibility for advancing polar research, infrastructure construction, human resources, and international cooperation.

The Arctic Strategy Until 2050 was also adopted, declaring the goal of becoming a leading power in sustainable Arctic governance through participation in international climate change programs, involvement in the region's sustainable economic development, expanded Arctic diplomacy, and development of the national research and technological base.

Finally, *The Medium-Term Plan for 2023–2027* repeated those objectives, acknowledged the growing competition in the polar regions, and the need to strengthen South Korea's position by developing the icebreaker fleet, satellite monitoring, environmentally-friendly shipping technologies, and international cooperation (Kiriyanov, 2023).

South Korea's Arctic policy is generally pragmatic and multifaceted: scientific activity legitimizes its presence, diplomacy compensates for the lack of territorial access, and technology and logistics underlie long-term economic interests.

The NSR in the Lee Jae-myung Government's Strategy

The NSR is named a priority in all of South Korea's polar laws, programs, and plans.

In 2017, at the 3rd Eastern Economic Forum in Vladivostok, South Korean President Moon Jae-in proposed 'Nine Bridges of Cooperation,' including several Arctic-related areas: the NSR, shipbuilding, port development, and gas supplies (Seo, 2021, p. 184).

The new South Korean government, led by Lee Jae-myung, which came to power in June 2025, has elevated the NSR's importance, making its development a priority—not within a regional or scientific agenda, but within South Korea's maritime and logistics strategy.

This policy is enshrined in National Policy Task No. 56: "Creating a K-Sea Power, Leading the Era of the Northern Sea Route." Essentially, it links the South Korean maritime industry's future to the development of new Arctic transport routes and the creation of infrastructure supporting South Korea's participation in the redistribution of global logistics flows.

The South Korean government is ready to start practical implementation of this project, with pilot voyages along the NSR, followed by the route's transformation into a commercially viable

corridor. To this end, the government intends to financially support national shipping companies in the construction of icebreakers and the development of technologies for transport in icy conditions (National Policy Tasks, 2025, p. 118).

The port of Busan is planned to become a key logistics hub for servicing Arctic cargo flows. There are also plans to build port facilities for containers, LNG, and oil, and to modernize port infrastructure with environmentally friendly and smart technologies. More generally, South Korea plans to increase its transport fleet's capacity and environmental friendliness, which should enhance its competitiveness on new routes. South Korea's strategy also emphasizes the need to intensify international cooperation through participation in global maritime forums and through partnerships in Arctic shipping. The NSR is viewed as a transport project, but also as a source of new technologies, an incentive for shipbuilding, and a source of future economic advantages (Ibid).

Yet Seoul's plans for the NSR's development face a dilemma. From the very beginning of Russia's Special Military Operation in Ukraine, South Korea has supported Western sanctions on Russia, including in the Arctic. With Lee Jae-myung's accession in 2025, rhetoric has noticeably softened, but so far without any concrete change. While Seoul is not at the forefront of Western efforts to impose new sanctions on Russia, it strictly adheres to existing ones. It is generally believed that progress in Russia-South Korea relations will be possible only if the West softens its approach to Russia, since Seoul follows its main military and political ally, the U.S.

But effective use of the NSR, lying along Russia's coast and running through its exclusive economic zone, is impossible without Russia. Hence Seoul is seeking ways to resume cooperation with Russia on the NSR, without violating the current sanctions regime (Pak, 2026).

SOUTH KOREA'S SEARCH FOR NEW WAYS TO USE THE NSR

The Expert and Business Perspective: Rational Caution

South Korean experts and businesses approach the Arctic and the NSR from a longer-term pragmatic perspective, weighing opportunities and risks in light of national interests.

Expert discussions, which often include government officials, tend to shift focus from the current political situation to structural changes in global logistics and energy. The NSR is seen not as requiring immediate action, but as an element in the future transformation of global maritime routes, one whose importance could increase as traditional corridors become more congested and risky.

South Korean analytical papers emphasize that the NSR is "not just the shortest route between Asia and Europe, but a strategic option capable of strengthening the stability and predictability of supplies" (Ko, 2025). Geopolitical crises in recent years—the blocking of the Suez Canal and restrictions on the Panama Canal—have exposed the vulnerability of even a well-developed logistics system.

However, in discussing the NSR, experts and business do not oppose the government's position. Rather, the products of such 'ideas incubators' are intended only for later implementation. Strategic interest in the NSR is thus maintained within the boundaries of current government policy.

Today, the debate is around which region and port should be primary beneficiaries of the new strategy and how the new plans should be implemented. Since the NSR's inclusion in Lee Jae-myung's list of 123 development priorities, competition for connection to the NSR has risen between South Korea's regions and ports, several of which have proposed their own (Kiriyanov, 2026a).

Pragmatically, the South Koreans acknowledge that the NSR should be tapped through cooperation between private corporations of Russia and South Korea, as they are less dependent on geopolitical factors. South Korea's large corporations have shown little enthusiasm so far, content in their reliance upon standard routes. But as global warming extends the period of Arctic navigability, and the vulnerability of the Suez Canal and other routes becomes clear, the NSR's advantages in shipping to Europe will force even the large corporations to turn towards it (Ma, 2026).

Furthermore, although the South Korean government and businesses constantly claim their independence from each other, there are numerous mechanisms for ensuring the alignment of their

positions. The government's inclusion of the NSR in the official list of key development objectives has pushed companies to become more active. Yet South Korean businesses continue to strictly comply with anti-Russian sanctions (Park, 2026).

While both experts and major companies view the NSR as a strategic opportunity, they emphasize that its use entails significant risks, primarily sanctions against Russia and against those who cooperate with it. Financing is especially vulnerable.

There is also the political risk of sudden international developments, including projects' suspension by either Russian or South Korean authorities, especially if South Korea's conservatives—who traditionally give unconditional priority to the alliance with the U.S.—return to power. These risks necessitate additional legal guarantees and special investment protection regimes.

The South Koreans also note inherent limitations of the NSR. Arctic conditions require enhanced ice-class standards, expanded insurance coverage, regular personnel training, and exchange of meteorological data. This raises operating costs and makes the NSR more complex compared to traditional routes. All of this is compounded by the shortage of specialized vessels, limited capacity of ports located along the NSR, the need to develop modern river-sea cargo handling facilities, and other infrastructure deficiencies (EY Report, 2026).

On the whole, South Korean experts and big businesses view the NSR not only as a promising alternative corridor, but also as politically, financially, and operationally uncertain, requiring a cautious and phased approach.

The New Leadership's Tentative Approach

Despite all the risks, difficulties, and limitations, South Korea is already taking steps towards realizing its NSR goals.

In the second half of 2025, the Ministry of Oceans and Fisheries began consultations with domestic companies on staging a trial voyage by a South Korean container ship from Busan to Rotterdam via the NSR. In January 2026, the Ministry announced preparations for negotiations with Russia on the NSR trial voyage, with consultations

scheduled to take place in the first half of 2026. To organize the passage of a 3,000 TEU container ship, on 27 April 2026 a bidding contest was announced among South Korean shipping companies ready to operate in Arctic conditions. The winner was announced in the middle of May 2026. Busan-based PanStar Line Dot won the contest and will receive government support of up to 4 billion wons (about $2.3 million) for the construction or retrofitting of an icebreaker, along with port fee exemptions. To coordinate the project, a headquarters involving ten government agencies has been established (Kiriyanov, 2026c).

The project aims to test the NSR in practice, accumulate Arctic shipping experience, and check the economic and technical feasibility of large-scale repeat shipments (Kim, 2026; KMN, 2026). The South Korean authorities have not yet articulated how exactly they would like Russia to assist the trial voyage, but they are likely to request right-of-passage, navigation information, and a commitment to provide supplies and repairs as necessary.

South Korean bulk carriers have sailed through the NSR five times, but its container ships have never done so. The South Koreans' activity is largely instigated by the passage of a Chinese container ship through the NSR in 2025, and by Beijing's overall increased activity in the Arctic (Kiriyanov, 2026b).

Acting Minister of Oceans and Fisheries Kim Sung-beom has confirmed readiness to resolve the sanctions issue: "Russia requires that we receive permission to transit the portion of the NSR that passes through Russia's territorial waters and exclusive economic zone. In this regard, it is important to establish cooperation with the relevant [Russian] authorities. However, since our country is also participating in Western sanctions imposed against Russia, we plan to find a mutually acceptable solution. We are preparing negotiations with Russian authorities in the first half of this year" (Yoon, 2026). This indicates not an intent to lift sanctions, but rather to find ways around sanctions-related difficulties (e.g., with payment of transit fees) in order to ensure the South Korean vessel's one-time passage.

Thus, fully aware of all the risks and limitations, Seoul has begun taking the first steps towards long-term cooperation with Russia on

the NSR, by preparing cautious pilot projects. The first trial voyage was announced to be realized in August-September 2026 (Lee and Park, 2026).

COOPERATION OPPORTUNITIES UNDER DIFFERENT SCENARIOS

Russian and South Korean Long-Term Interests

Russia has a long-term interest in cooperating with South Korea in the Arctic, and on the NSR in particular.

First and foremost, Russia needs to diversify its external partners. Under sanctions and with limited access to Western technologies and markets, Russia has enhanced cooperation with China, including in the Arctic, but long-term dependence on a single partner poses strategic and economic risks. Thus, Russia stands to benefit from adding other, complementary Asian partnerships.

Second, the largest NSR-related challenge, besides attracting investment, is acquiring special technologies and skills required for operation in Arctic conditions. The NSR development requires a specialized fleet, efficient port management, and the coordination of complex seasonal routes. In this context, Russia would benefit from investment and technology partners to defray the NSR's costs and smooth its operation.

The third factor relates to the economic rationale for developing the NSR. The project remains capital-intensive and highly risky. Its competitiveness directly depends on the ability to control operation costs, ensure supply reliability, and reduce accident and climate risks as much as possible. For Russia, cooperating with external industrial partners is a way to increase the efficiency of its Arctic activity, rather than internationalizing it. In this sense, South Korea is viewed not as a sales market, but as a potential partner in creating a more sustainable economic model for the NSR's operation and as a source of capital.

The fourth factor is the geo-economic dimension of potential Russia-South Korea cooperation. It is critical for Russia that the NSR become an internationally significant route, rather than a domestic

or bilateral one. Sustained interest from various Asian economies, including South Korea, will help develop the NSR within the broader Eurasian logistics system. In this sense the Korean track of cooperation is part of a strategy for maintaining the diversity of external relations.

Fifth, and final, is the political factor. South Korea is not an Arctic power with political or territorial ambitions in the region, and cooperation with it is thus less likely to be politicized, more likely to remain pragmatic.

As for South Korea's interest in cooperation, it is exclusively practical: the NSR largely runs along the Russian coast and through its inland waters. As a trading nation relying more than 99% on maritime shipment, South Korea seeks to diversify transportation routes and reduce logistical risks. For Seoul, the NSR is a potential alternative to the instability of traditional sea routes. Furthermore, South Korea is interested in long-term access to the Arctic's strategic raw materials (e.g., lithium for batteries) and in putting its shipbuilding and engineering to work.

Leaving sanctions aside, the long-term interests of Russia and South Korea overlap in several key areas.

First, shipbuilding and an Arctic fleet. Russia needs river-sea-class vessels and specialized research and support vessels, while South Korea has the expertise and experience to organize modern, large-scale ship production, including ice-class vessels. South Korean expertise could also support Russian ports' technological, digital, safety, and environmental modernization (EY Report, 2026, pp. 13, 17-20).

Second, South Korean companies' expertise in construction and port digitalization could be of use in managing port-to-railway-to-NSR and river-to-NSR shipments.

Third, Arctic resources, exported via the NSR, could be utilized by South Korean manufacturing, e.g., of batteries (EY Report, 2026, pp. 18, 21-22).

Strategically, the NSR could become not just a single route, but an element of a broader architecture in the Arctic and Northeast Asia, combining Russia's resources and logistics with South Korea's technology and industry.

Deferred Cooperation in the Current Geopolitical Environment

Under the current sanctions regime, opportunities for practical cooperation on the NSR will remain very limited, but possible. The main task is to create the broadest possible framework and mechanisms for deferred cooperation in a future more favorable environment.

Joint investment projects and a strategic alliance are currently impossible, but cautious technical, infrastructural, and expert-based cooperation can be devised.

Possible tracks of cooperation include:

1. ***Specialized shipbuilding.*** Joint construction not of large-capacity icebreakers, but of the small and specialized ice-class vessels servicing the NSR's river-sea logistics. This includes design, engineering, technical documentation, standardization, and consulting.
2. ***Ports and infrastructure.*** South Korean specialists may participate in the development of Murmansk, Arkhangelsk, and other ports—and of associated railway infrastructure—through individual EPC contracts, technological support, and special investment regimes that minimize sanctions risk (e.g., exchange of raw materials for South Korean companies' participation) (EY Report, 2026, p. 15).
3. ***Pilot projects and phased testing of the route.*** The announced South Korean plan, for a container ship's trial voyage from Busan to Rotterdam, needs to be scaled up to two or three test voyages per year, accompanied by navigational, logistical, and emergency testing of the route. Until the NSR is integrated into global supply chains, this will grant the South Koreans experience with Arctic operations and cooperation with Russian specialists.
4. ***Working groups and 'semi-official' diplomacy ('Track 1.5').*** We suggest establishing a civil Russia-South Korean working group involving shipowners, ports, ship classification societies, insurers, and research institutions. It would discuss standards, insurance, logistics, and regulations without concluding formal agreements, and keep the South Korean and Russian governments informed.

5. ***Technical standards, safety criteria, and data exchange.*** Current conditions permit cooperation between Russian and South Korean ship classification societies, the development of compatible safety protocols, the joint verification of ice-class vessels, the coordination of insurance mechanisms, the exchange of meteorological and marine data, and the conduct of regular safety and environmental-protection exercises. This will create the necessary technical foundation for future cooperation.
6. ***Educational and personnel programs.*** Educational and personnel exchanges appear promising and mutually beneficial for building trust and creating a foundation for long-term cooperation. They may include training of specialists in Arctic shipping, insurance, and environmental monitoring. South Koreans would be interested in gaining Arctic experience, while Russians could enrich their knowledge of South Korea's latest advances in technology and information.

In sum, we propose that the two countries draw closer to one another technically, starting with nongovernmental pilot programs that minimize sanctions risks and develop institutional and professional compatibility.

But Russia should also make clear that NSR cooperation can be conducted only on a mutually beneficial basis, that Seoul is expected to be responsive to Russia's interests and needs.

PROSPECTIVE COOPERATION GUIDELINES

In the long term, if sanctions are at least partly lifted, Russia-South Korea cooperation could greatly expand.

If sanctions remain, but certain sectoral and functional windows open up, then a prompt response will be needed based on the knowledge and experience accumulated through the prior stages of deferred cooperation. Even just some easing of financial restrictions would remove many of the current obstacles to cooperation.

However, much planning by experts and corporations is oriented towards a significant easing of political pressure, or lifting of sanctions, which permits full-fledged cooperation in: construction of a specialized

fleet (including icebreakers with SMR technology); development of port infrastructure (including in Arkhangelsk and Murmansk); LNG projects; and creation of an integrated transport corridor through the Arctic and Northeast Asia, incorporating various South Korean ports like Donghae, Pohang, Ulsan, Busan, Jinhae, and Yeosu-Gwangyang.

If the status quo is maintained, deferred cooperation will remain the only possibility, but even it can considerably benefit both Russia and South Korea.

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The Northern Sea Route is an integral part of Russia's geo-economic strategy, which includes systemic cooperation with Asian partners. In this context, South Korea is not an alternative to other partners, but is potentially complementary to them, offering advanced industrial, logistical, and management expertise.

Given current restrictions, South Korean companies' caution is understandable. But they are interested in cooperation, and several opportunities for it already exist, namely the planned trial voyage of a South Korean container ship along the NSR.

By building expertise and trust between private companies, ship classification societies, and port operators; by establishing permanent channels of dialogue; and by increasing mutual understanding and awareness of the parties' specific characteristics and operating procedures, deferred cooperation can create a 'quiet infrastructure' for future full-scale cooperation.

The South Korean pilot voyage, scheduled for August-September 2026, will greatly clarify the feasibility of Russia-South Korea cooperation on the NSR. In the future, much will depend on changes in the sanctions regime. But even the emergence of sectoral windows of opportunity could permit much currently postponed cooperation.

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