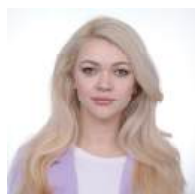


HISTORICAL ANALYSIS AND CURRENT STATE OF COOPERATION BETWEEN BELARUS AND CHINA IN THE FIELD OF TELECOMMUNICATIONS

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The article analyzes the historical development, current state, and prospects of cooperation between Belarus and China in the fields of telecommunications and information technology. It covers key events since diplomatic relations were established in 1992, such as the creation of the Great Stone Industrial Park and Belarus' participation in the "One Belt, One Road" initiative. The article also discusses joint projects in 5G technology, digital infrastructure, and artificial intelligence. Special attention is paid to strategic agreements such as the 2015 Treaty of Friendship and Cooperation and the 2024 Memorandum of Cooperation in Information and Communication Technologies. The results of the analysis emphasize the significance of Belarus-China cooperation in strengthening the regional influence and promoting technological modernization in both countries.

Keywords: Belarus-China relations; telecommunications; Belt and Road Initiative; The Great Stone; 5G; ICT.

ИСТОРИЧЕСКИЙ АНАЛИЗ И СОВРЕМЕННОЕ СОСТОЯНИЕ СОТРУДНИЧЕСТВА БЕЛАРУСИ И КИТАЯ В ОБЛАСТИ ЭЛЕКТРОСВЯЗИ И ТЕЛЕКОММУНИКАЦИЙ

Статья посвящена анализу исторических этапов, современного состояния и перспектив сотрудничества между Республикой Беларусь и Китайской Народной Республикой в сфере электросвязи и телекоммуникаций. Рассмотрены ключевые события, начиная с установления дипломатических отношений в 1992 г., включая создание индустриального парка «Великий камень», участие Беларуси в инициативе «Один пояс, один путь», а также совместные проекты в области 5G, цифровой инфраструктуры и искусственного интеллекта. Особое внимание уделено роли стратегических соглашений, таких как Договор о дружбе и сотрудничестве, подписанному в 2015 г., и Меморандум о взаимодействии в области информационно-коммуникационных технологий (2024 г.). Результаты исследования подчеркивают значимость белорусско-китайского сотрудничества для укрепления регионального влияния и технологической модернизации обеих стран.

Ключевые слова: белорусско-китайские отношения; телекоммуникации; Инициатива «Один пояс, один путь»; Великий камень; 5G; ИКТ.

INTRODUCTION

The cooperation between the Republic of Belarus and the People's Republic of China in the field of telecommunications has been a unique example of strategic partnership between states with different geographical and cultural backgrounds for three decades. This partnership is built on complementary interests, with Belarus' need for technological advancement and China's "Reaching the Global Level" strategy. The evolution of this cooperation, from the conclusion of basic trade agreements in the 1990s to the implementation of large-scale projects such as 5G networks, satellite systems, and digital infrastructure, demonstrates its transformation into a tool for regional influence.

The relevance of this study is determined by the increasing importance of digital technology as a driving force behind socio-economic transformation in the era of globalization. In China, which holds a leading position in

telecommunications, and in Belarus, which is seeking to modernize its infrastructure, joint projects have become an integral part of strategic planning.

The aim of this paper is to conduct a comprehensive analysis of the historical stages of collaboration between these two countries, evaluate its current state, and identify factors that ensure the sustainability of this partnership. The research is based on intergovernmental agreements, company reports, scientific publications, and media materials.

The development of Belarus-China relations

On January 20, 1992, diplomatic relations between the Republic of Belarus and the People's Republic of China were officially established. This significant step marked the beginning of a long-term partnership that has been continuously strengthened through the mutual efforts of

both sides. In the early years of cooperation, in addition to the basic agreement on diplomatic relations, a number of intergovernmental documents were signed. One of the most important was the agreement on trade and economic cooperation. This document became the basis for the formation of a legal framework for bilateral relations covering trade, investment and technological exchange.

Significant events in the development of relations between Belarus and China were the official visits of President of the Republic of Belarus Alexander Lukashenko to China in 2005 and 2008. During these visits, the parties officially announced for the first time the strategic nature of their cooperation. Chinese Vice President Xi Jinping visited Belarus in March 2010. As a result of this visit, important agreements were signed on cooperation in various fields, including energy, agriculture and education. One of the key decisions was the creation in 2012 of a joint Chinese-Belarusian industrial park, which since 2014 has been called the Great Stone Industrial Park. By 2023, this large-scale project has attracted more than \$2 billion in investments and brought together 100 companies from 15 countries, becoming a prime example of successful cooperation [1; 2].

The partnership between Belarus and China was further strengthened in May 2015 when the two countries signed an agreement on friendship and cooperation, which came into force in September 2016. This agreement consolidated the principles of mutual support for sovereignty and territorial integrity and expanded cooperation in security, science, and culture. The implementation of this agreement has led to a significant increase in trade between the two countries. In 2015, the trade volume was \$3.1 billion, but by 2024, it had exceeded \$8.4 billion.

In December 2021, the President of Belarus, Alexander Lukashenko, signed Directive No. 9 on the development of bilateral relations with China until 2025. This document includes more than 50 specific actions aimed at enhancing cooperation between the two countries in areas such as innovation, a green economy, digitalization, and humanitarian cooperation. Under this directive, it was planned to create joint laboratories in biotechnology, increase student exchanges, and launch direct flights between Minsk and Shenzhen.

The Belt and Road Initiative is the foundation for a multilateral partnership

In recent decades, cooperation between the Republic of Belarus and the People's Republic of China has moved to the level of a strategic partnership based on the complementarity of economies and the convergence of geopolitical interests. A particularly significant aspect of this cooperation is the participation of Belarus in the large-scale Chinese initiative "One Belt, One Road" (OBOR), launched in 2013 and integrated into the plan of the "13th Five-year plan" of the PRC (2016–2020). This project, which includes the onshore Silk Road Economic Belt and the maritime Silk Road of the 21st Century, has become an incentive for strengthening trade and economic ties between the two countries and contributed to the transformation of Belarus into the most important transport and logistics hub in Eurasia [3, p. 47].

The geographical location of Belarus, connecting Europe and Asia, has determined its role as an important link in the overland direction of the SREB. Since 2015, the joint promotion of this project has become a priority of bilateral relations. Chinese investments, which exceeded 3 billion over the period 2015–2023, as well as concessional loans worth more than 1.5 billion, are aimed at modernizing the Belarusian infrastructure. For example, the reconstruction of sections of the Europe–China railway corridor has reduced the transit time of goods from China to the EU via Belarus from 14 to 10 days, and the volume of transit traffic through the country has increased by 35 % over the past five years.

One of the key projects under the "One Belt, One Road" initiative is the Great Stone Industrial Park, which was founded in 2014 in the Smolevichi district of the Minsk region. This park covers an area of 112.5 square kilometers and houses more than 144 residents from over 15 countries, including some of the leading Chinese companies. The priority areas of activity in the park are high-tech industries, electronics, biomedicine, and environmentally friendly businesses. Among the key residents, it is worth highlighting LLC Zavod Telecommunicationnogo Oborudovaniya, which launched the production of computer components and communication systems in December 2022, investing \$200 million and creating 500 new jobs.

Another important participant is Bel Huawei Technologies LLC, whose research center develops solutions in the field of 5G and artificial intelligence, cooperating with Belarusian universities. In September 2011, Huawei Training Center opened at the Belarusian State Academy of Communications as a result of fruitful cooperation between our two countries in education. The center's main goal is to provide future professionals with opportunities to gain high-quality knowledge and skills in telecommunication technologies. It offers a wide range of educational programs and services that aim to develop and promote innovative solutions in communication.

In 2024, all key performance indicators for residents of the Great Stone Industrial Park showed significant growth. Taxes, fees and charges paid increased by 1,7 times, revenue from sales of products increased by 1,4 times, production volume increased by 1,2 times, exports of goods increased by 13,6 %, and investments in fixed assets increased by 7,1 %. The net profit of the enterprises exceeded 100 million rubles [4].

Belarus-China cooperation in information and communication technology

Scientific and technological development is an integral part of the modernization strategies of both the Republic of Belarus and the People's Republic of China. Both countries see information and communication technologies (ICT) as a powerful tool for achieving economic growth, increasing competitiveness, and addressing social challenges. In Belarus, this goal is reflected in the State Program of Innovative Development for 2021–2025, which includes 75 scientific and engineering projects aimed at digitalization of industry, medicine and education. In turn, China is actively implementing the "Made in China 2025"

and "Internet+" strategies, focusing on artificial intelligence, cloud computing, and the Internet of Things (IoT) to transform industry, agriculture, and energy.

An important step in strengthening the bilateral partnership was the signing on August 22, 2024 of a Memorandum of Understanding between the Ministry of Communications and Informatization of Belarus and the Ministry of Industry and Information Technology of China. Within the framework of the memorandum, the parties agreed to create a Belarusian-Chinese platform for cooperation in the field of information and communication technologies (ICT). The coordination of the platform's activities will be carried out by RUE "Center for Digital Development" (Belarus) and the Center for International Economic and Technical Cooperation (China). The parties plan to develop joint solutions in the field of digital medicine, robotics, cloud technologies and artificial intelligence on this platform. Already in 2022, Huawei and Belarusian IT firms tested artificial intelligence algorithms designed to analyze X-ray images as part of pilot projects.

In 2020, Huawei signed a cooperation agreement with the Chinese-Belarusian industrial park "Great Stone". As part of this partnership, Huawei provided equipment for a test area in the field of 5G technology. The 5G mobile communication standard is a new stage in technology development. It offers several advantages, including high speeds with minimal delay, support for multiple devices, and energy efficiency. This partnership between Huawei and Great Stone aims to promote the development of 5G in Belarus.

Special attention is also given to cooperation between the National telecommunications operator of Belarus «Beltelecom» and leading Chinese suppliers of communication equipment. This collaboration aims to strengthen the telecommunications industry in Belarus and promote the use of advanced technologies.

In 2021, Beltelecom successfully tested the 5G network. The first testing site was located in the Veliky Kamen Industrial Park, where the network operated on the 3.6 GHz frequency range. Here, a presentation of the 5G capabilities was held. The second testing zone is located in the Kopylsky district, where Beltelecom tested a fifth-generation network for the first time in the Commonwealth of Independent States using Huawei base stations. The network operates on the 700 MHz frequency band. The download and data transfer speeds on the 5G network are significantly faster than on 4G. In the "Great Stone" test zone, maximum speed values reached 1.235 Gbit/s. Testing was carried out using a Huawei P40 PRO smartphone and Huawei 5G CPE PRO2 FWA terminal [5].

The results obtained within test zones, as well as the achievement of joint goals within the time frame, demonstrate the high professionalism of Belarusian and Chinese companies and their mutual interest in developing innovative technologies.

For more than ten years, ZTE Corporation has successfully collaborated with Beltelecom on the implementation of IPTV/OTT services in Belarus. During this time, ZTE has completed over a hundred commercial projects using a

variety of large-scale video solutions in over 45 countries. Collaboration with Beltelecom has been one of the most significant projects in the field of IPTV/OTT in the CIS region. The service has been popular among subscribers and demand for it continues to grow. In 2021, the company upgraded its IPTV platform, further improving the quality of its services [6].

CONCLUSIONS

Thus, historical analysis demonstrates that cooperation between Belarus and China in the telecommunications sector has evolved from the establishment of diplomatic relations to the creation of an integrated technological partnership. The signing of key documents, such as the Friendship Treaty in 2015 and the Memorandum on Cooperation in ICT in 2024, has solidified the institutional framework for cooperation between the two nations.

At the present stage, the partnership between Belarus and China is characterized by a deep level of integration within the One Belt, One Road initiative. The two countries are actively developing the Great Stone project and implementing joint projects in information and communication technology. Despite challenges associated with foreign policy, the prospects for this partnership remain significant.

The key factors for success will be the successful implementation of Directive No. 9 and strengthened scientific and educational cooperation. This partnership contributes not only to the modernization of Belarus' telecommunications infrastructure but also to China's leadership in this field, creating a new model for international cooperation in the digital era.

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