

THE DIGITAL ECONOMY OF BELARUS AND CHINA: STRATEGIC PARTNERSHIP, CURRENT STATE AND DEVELOPMENT PROSPECTS

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The article provides a comprehensive analysis of the strategic partnership between the Republic of Belarus and the People's Republic of China in the field of the digital economy. It examines the key factors that determine cooperation between the two countries in this area, paying special attention to the analysis of the current state of digital transformation in the economies of both countries based on up-to-date data. The article also identifies promising areas for future cooperation aimed at further deepening integration and enhancing technological sovereignty. However, it also acknowledges the challenges that exist for the partnership, such as differences in regulatory frameworks and financial constraints, as well as technological asymmetries.

Keywords: Belarusian-Chinese relations; digitalization; digital economy; information and communication technologies (ICT); «Digital Development of Belarus»; «Digital Silk Road».

ЦИФРОВАЯ ЭКОНОМИКА БЕЛАРУСИ И КИТАЯ: СТРАТЕГИЧЕСКОЕ ПАРТНЕРСТВО, СОСТОЯНИЕ И ПЕРСПЕКТИВЫ РАЗВИТИЯ

Статья представляет собой комплексный анализ стратегического партнерства Республики Беларусь и Китайской Народной Республики в области цифровой экономики. В статье рассматриваются ключевые факторы, определяющие сотрудничество между странами в сфере цифровизации. Особое внимание уделяется анализу текущего состояния цифровой трансформации экономик Республики Беларусь и Китайской Народной Республики на основе актуальных данных, включая Индекс развития информационно-коммуникационных технологий (IDI). В статье определены перспективные направления дальнейшего развития сотрудничества, направленные на углубление интеграции и усиление технологического суверенитета, а также выявлены существующие вызовы для партнерства, такие как технологическая асимметрия, нормативно-правовые различия и финансовые ограничения.

Ключевые слова: белорусско-китайские отношения; цифровизация; цифровая экономика; информационно-коммуникационные технологии (ИКТ); «Цифровое развитие Беларуси»; «Цифровой Шелковый путь».

INTRODUCTION

In the twenty-first century, the digitization of the economy has emerged as a significant factor influencing the evolution of the global economic landscape. The advancement of information and communication technologies (ICT), artificial intelligence (AI), big data, and the internet of things (IoT) are leading to fundamental transformations in the structure of production, commerce, and management.

These digital technologies contribute to enhanced productivity, reduced transaction costs, and the emergence of novel business models, such as platform-based economies and digital ecosystems. Within the context of globalization, nations that actively implement digital solutions gain a competitive edge, while those that lag behind risk marginalization in technological advancement.

The significance of this research is due to the fact that collaboration between Belarus and China in the realm of digital technologies constitutes an essential component of economic stability and expansion for both countries. In the context of Belarus, which has faced increased sanctions pressure, cooperation with China in information and communication technology and the digital economy constitutes a crucial area for modernizing infrastructure, developing export of IT services, and substituting critical technologies.

For China, Belarus serves as a valuable strategic partner and “testing ground” for adjusting its digital products and services to conform to the standards of the Eurasian Economic Union (EAEU), as well as expanding its economic presence within the framework of the “One Belt – One Road” initiative.

The aim of this article is to examine the current state of affairs and future prospects for cooperation between the Republic of Belarus and the People's Republic of China in the area of digital economy. We will identify key achievements, obstacles, and opportunities for the further development of these partnership ties.

THE DIGITALIZATION OF THE ECONOMY AS A GLOBAL TREND

The geopolitical context has a significant influence on the development of digital cooperation between China and Belarus. These influences both the opportunities and constraints for bilateral collaboration. Within the context of China's strategy for cooperation with Central and Eastern European countries, known as the "17+1" initiative (or "14+1" for 2025), Belarus holds a special position as a crucial transport and logistics node and technological bridge between the Eurasian Economic Union and the European Union. China regards Belarus as a strategic partner in promoting its digital standards and technologies in the region. This aligns with the overarching vision of the Digital Silk Road initiative [1].

An essential component of China's strategy is the "Made in China 2025" initiative, which aims to ensure technological independence in crucial sectors such as microelectronics, telecommunications, and robotics. Prominent Chinese corporations like Huawei, ZTE, and Alibaba are leading the way in exporting digital solutions. Additionally, the introduction of the digital yuan (e-CNY) enhances China's standing in the global financial landscape.

As per the ICT Development Index (IDI) report for 2024, China has demonstrated steady progress in its digital infrastructure development. The IDI score for China increased from 82.7 in 2023 to 84.4 in 2024, representing a growth of approximately 2%. Due to its above-average GDP and high-quality digital technology indicators, China can be categorized as a country with a high level of development.

In China, there has been an increase in internet accessibility, with 75.6% of the population actively using the internet and 81.2% of households having access to the network, showing an improvement compared to the previous year. This indicates an increase in digital engagement among the population.

Regarding mobile communications, China has almost complete coverage, with 99.9% of residents having access to 3G and 4G/LTE networks, and the number of active mobile broadband internet subscriptions per 100 residents is 107.8.

There is also an increase in consumption of digital services, with mobile traffic per subscription reaching 174.8 GB and fixed traffic reaching 2,575.1 GB, both of which are significantly higher compared to 2023 values.

The cost of communication services in China continues to be among the most affordable globally. Mobile internet and voice communication costs account for

only 1% of gross national income per capita, with fixed internet costs at 0.5%. These figures correspond to the targets set by international organizations [2].

Belarus is also actively pursuing digital transformation, focusing on the development of its IT industry and adapting legislation to new circumstances. On February 2nd, 2021, for example, the Council of Ministers approved the State Program for Digital Development for 2021–2025, aimed at introducing information and communication technologies and advanced production methods across all sectors of the economy and society.

The state program "Digital Development of Belarus" encompasses several subprograms designed to foster the digital advancement of public administration, economic sectors, regions, information security, and "digital trust." These subprograms aim to promote the adoption of cloud technologies, deployment of fifth-generation (5G) cellular mobile telecommunication networks, and the provision of technological solutions such as Smart Cities in Belarus [3].

Based on the Information and Communication Technology Development Index (ICT Development Index) for 2024, the ICT development index in the Republic of Belarus has increased from 86.9 in 2023 to 88.5 in 2024. This represents significant progress in ICT development, with 89.5% of Belarus' population using the internet and 89.5% of households having internet access.

Belarus has excellent 3G and 4G/LTE coverage, with a 98.8% coverage rate, and the number of mobile broadband subscriptions per 100 inhabitants has reached 65.2. The average monthly mobile broadband internet traffic per subscription in Belarus is 143.5 GB, while fixed broadband is at 1502.1 GB.

Access to mobile communications and broadband internet in Belarus remains affordable. The cost of a basket of mobile and voice communication services accounts for 1.6% of the gross national income per capita, while fixed broadband internet costs 0.7% of that same income [4].

These data indicate that Belarus is actively pursuing the creation of a society where information technology is widely accessible, which contributes to the continued development and prosperity of the nation. However, increased sanctions pressure from Western nations since 2020 has significantly impacted the nature and extent of Belarus's digital cooperation with China.

The geopolitical climate has prompted a shift in cooperation priorities, leading to an emphasis on projects aimed at achieving technological sovereignty and promoting import substitution. Chinese investments in Belarusian digital infrastructure are viewed not only through an economic lens, but also through a political one, as a means of reducing dependence on Western technology. Under these circumstances, Chinese companies have seen an increase in opportunities to market their telecommunications services, e-government solutions, and payment systems in the Belarusian market.

The main directions of digital cooperation between China and Belarus

Cooperation between China and Belarus in the area of digital technologies is taking place within the framework of a strategic partnership that encompasses both commercial and scientific-technical aspects. A key element of this cooperation is the establishment and development of technology parks, with the Great Stone Industrial Park playing a special role. This project, supported by Chinese investments, has emerged as an important hub for high-tech companies engaged in the development of IT solutions, industrial automation, and logistics.

The park not only facilitates the transfer of Chinese technology to Belarus but also serves as a platform for innovative joint ventures, strengthening the technological independence of both countries. The China-Belarus Industrial Park "Great Stone" exemplifies sustainable development. As of 2025, the park has registered 144 resident companies from 14 different countries, with planned investment exceeding \$1.5 billion. This has led to the creation of more than 3,000 new jobs [5].

Within the framework of bilateral cooperation, both countries have placed a special emphasis on the development of e-commerce, telecommunication, and cybersecurity. From 2020 to 2025, China and Belarus have implemented a series of joint projects aimed at digitizing trade and ensuring the secure exchange of data. Chinese companies, such as Huawei and ZTE, have been actively involved in modernizing the Belarusian telecommunication infrastructure, including the implementation of 5G networks and cloud technologies.

In the field of cybersecurity, both parties have been working to develop joint programs to protect critical information infrastructure. Belarusian IT companies, including those based in the Hi-Tech Park, are expanding their software exports to the Chinese market.

Educational and scientific cooperation in the field of information technology remains an important area of collaboration between China and Belarus. Chinese universities and research institutions actively engage with Belarusian counterparts, particularly the Belarusian State University of Informatics and Radioelectronics (BSUR), through academic exchange programs and joint research initiatives. These collaborations provide students and scholars from Belarus with opportunities to study advanced technologies at leading Chinese scientific centers through scholarship programs sponsored by Chinese institutions.

The cooperation between China and Belarus in digital technologies has seen a number of notable projects that have gone beyond the aforementioned initiatives. Notable among these is the pilot project to integrate China Union Pay, a Chinese electronic payment system, with the Belarusian payment infrastructure. This integration has greatly facilitated financial transactions between businesses in both countries [6, p. 62].

Cooperation in the healthcare sector has become one of the most promising areas of collaboration. China has shared its expertise in establishing a telemedicine platform, which can be tailored to the specific needs of the Belarusian health system.

THE PROSPECTS FOR THE DEVELOPMENT OF DIGITAL COOPERATION BETWEEN CHINA AND BELARUS

The potential for further cooperation between China and Belarus in the area of digital technologies is significant. However, successful implementation of this potential is contingent upon the parties' ability to address structural and technological obstacles.

One area of particular interest is the possibility of integrating Belarus' IT solutions into China's technology supply chains, particularly in niche sectors such as computer vision and industrial automation. This could lead to increased opportunities for Belarus to participate in Chinese initiatives like the Digital Silk Road, which could contribute to the country's technological advancement. Additionally, Chinese companies have shown an increasing interest in utilizing Belarus as a testing ground for adapting their digital products for the Eurasian market, prior to expanding them throughout the EAEU region.

One of the promising areas may be the integration of Belarusian developers into the digital yuan ecosystem, which will allow testing new models of digital payments in the conditions of the economy of the Republic of Belarus.

There is also potential for Belarusian universities and research centers to join joint research programs within the framework of the Chinese strategy "Made in China 2025", especially in priority areas such as quantum computing and new generations of mobile communications.

However, the implementation of joint digital projects is fraught with a number of significant difficulties. One of the key problems is technological asymmetry, which is reflected in the need to adapt advanced Chinese technologies to the less developed digital infrastructure of Belarus.

Regulatory and legal differences, particularly in the area of personal data protection and cybersecurity, pose additional challenges to the implementation of projects. Financial constraints on Belarusian partners frequently prevent successful pilot projects from being scaled up to full-scale national programs.

Language and cultural barriers also affect the effectiveness of collaboration, leading to additional time and financial expenses for organisational processes. The technical incompatibility of certain solutions developed for the Chinese market with European and domestic standards necessitates costly software modifications.

Furthermore, the prospects for long-term projects are contingent on political and economic circumstances, and shifts in either party's foreign policy may impact them.

However, in order to further develop digital cooperation between China and Belarus, it is essential to adopt an integrated approach that aims to remove existing barriers and create favorable conditions for technological collaboration. Such an approach would allow the China-Belarus digital cooperation to reach a new level of quality, ensuring its long-term sustainability and mutual benefits.

CONCLUSIONS

Therefore, the digitalization of the economy is a global trend that significantly impacts the competitiveness of nations in the contemporary world. China's experience demonstrates that consistent government support for digital initiatives can lead to leadership in critical technological areas.

Collaboration between China and Belarus in the realm of digital technologies encompasses various aspects, including commerce, infrastructure, and education. Establishing technology parks, implementing joint projects in high-tech fields, and organizing academic exchanges contribute to the strengthening of long-term partnerships between the two countries. Within the context of the ongoing digital transformation of global space, this interaction presents new opportunities for economic growth and technological advancement for both nations.

The accumulated experience in implementing joint digital projects indicates that cooperation between China and Belarus holds significant potential. Successful projects have demonstrated the ability to adapt Chinese technologies to the specific conditions of the Belarusian market. A thorough analysis of the challenges encountered in these initiatives allows us to identify measures that can be implemented in future projects to address these issues. The future development of this

partnership will depend on both parties' ability to balance technological capabilities, economic viability, and national interests when it comes to digital technologies. It is essential for both sides to work together to ensure that the benefits of collaboration are shared equally and that each country's interests are taken into account.

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