

Thus, digital transformation brings both opportunities and risks. On one hand, it drives innovation, productivity, and global connectivity; on the other, it requires stronger mechanisms for protecting intellectual property, ensuring cybersecurity, and maintaining fair competition in an increasingly open digital economy.

References

1. *Ашинова, М. К.* Цифровая экономика: позитивные эффекты и вероятные риски / М. К. Ашинова, А. К. Доргушаова // Цифровая экономика: новая реальность : сб. ст. по итогам междунар. науч.-практ. видеоконф., посвящ. 25-летию вуза, Майкоп, 4 дек. 2018 г. / ФГБОУ «Майкоп. гос. технол. ун-т» ; отв. ред. Т. А. Овсянникова. – Майкоп : Кучеренко В. О., 2018. – С. 216–223.

2. *Ашинова, М. К.* Цифровая трансформация отрасли финансовых услуг / М. К. Ашинова, С. К. Чиназирова, Р. В. Костенко // Математические основы разработки и использования машинного интеллекта : сб. науч. ст., посвящ. 70-летию со дня рождения д-ра техн. наук, проф. Лябаха Николая Николаевича / ФГБОУ «Майкоп. гос. технол. ун-т». – Майкоп : Кучеренко В. О., 2018. – С. 4–14.

3. *Чепурнова, Н. М.* Свободная конкуренция в условиях цифровой экономики: механизмы защиты / Н. М. Чепурнова, В. О. Мурызева // Государственная служба. – 2020. – № 2 (124). – URL: <https://cyberleninka.ru/article/n/svobodnaya-konkurentsiya-v-usloviyah-tsifrovoy-ekonomiki-mehanizmu-zaschity> (дата обращения: 05.11.2025).

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INFORMATION SYSTEMS AND DIGITALIZATION OF LOGISTICS: THE EXPERIENCE OF BELARUS

Информационные системы и цифровизация логистики: опыт Беларуси

The objective of the study is to improve the efficiency of digitalization of the industrial complex of Belarus with the framework of the implementation of the National Strategy until 2040.

Belarus is planning its future, starting with a new National Strategy development plan until 2040. The main goal of economic development will be to build a smarter, more advanced economy by modernizing key industries with new technology, automation and intelligent systems. We are shifting our industrial policy towards high-tech, breakthrough projects and the accelerated development of production. The goal for the next decade is to efficiently improve our economy through automation, intelligent systems and a new

digital marketplace aiming for a 1.6-fold increase in GDP. Digitalization is the process of bringing digital technologies into a wide variety of spheres of life.

The main goal for Belarusian industry is to make it more high-tech in the volume of industrial production. The higher the value of the indicator, the more technologically complex the structure of the industrial complex. Over the past 10 years, there has been an increase in the share of added value of high-tech activities in the total volume of manufacturing industry from 3.5 to 6.8 percent.

Nowadays Belarus is successfully shifting its industry toward more advanced, high-tech production making it more competitive. At the Belkommunmash plant, the emphasis is on the digitalization of production processes: several new machines with digital program control have been launched. A significant event for the enterprise will be the commissioning of a robotic complex for welding the main elements and frame of a tram trolley this year. The BELGI enterprise will soon launch an automated stamping line. By the way, the automated stamping line for large-sized parts is unique as it will be the first in the country.

On November 29, 2023, the Decree «On Digital Development» was signed. It is designed to strengthen the development of the information technology sector in Belarus. Among other things, a list of «Digitalization Offices» has been established – organizations granted this status. Today, IT specialists of the digitization office successfully perform tasks on development and implementation of new software products, as well as modernization and maintenance of more than 30 software systems of RUE «Belmytservice» and information systems of customs authorities.

The successfully implemented projects of digitization specialists were the development of enterprise management software and the information system «WEB-Declarant». We have modernized and ensured the reliable operation of our key logistics systems: cargo operation tracking, vehicle monitoring, and the «Waiting Zone» management system. Today, China and the USA are the industry leaders. They are the first to implement 5G-based digitalization at 20 plants.

All in all, in world practice, industrial technological projects were implemented in two ways. The first is the evolutionary path, when there was a gradual development at individual facilities with further spread to other industries. While a revolutionary path of massive investment spurs rapid growth, our country currently favors an evolutionary approach. The research identifies industry, energy and transport as the sectors where 5G would have the greatest economic effect for Belarus.

References

1. Что дает цифровая трансформация отраслей экономики в Беларуси – аналитический обзор // Беларусь Сегодня. – URL: <https://www.sb.by/articles/zaglyanut-v-tsifrovoe-zavtra.html> (дата обращения: 15.11.2025).