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Materials that deal with topical theoretical and practical issues of customs regulation, border security and international trade are presented in the collection of scientific articles of the IX Republican Youth Scientific-practical Conference “i-Customs.by”. This collection of articles is addressed to employees of the customs authorities, graduate students, undergraduates, students, professors, as well as to all interested persons studying the problems of international trade and customs.

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**«COMPARATIVE ANALYSIS OF TAX INCENTIVES FOR  
ENTERPRISES (ORGANISATIONS) IN THE REPUBLIC OF BELARUS  
AND THE RUSSIAN FEDERATION»**

*Research Field:*

*A secure business environment for economic development.*

**Abstract:** The article provides a comparative analysis of tax incentives for enterprises in the Republic of Belarus and the Russian Federation. It examines the main instruments of tax support for business, including special tax regimes, tax benefits and preferences. Common features and differences in the approaches of the two countries to stimulating entrepreneurial activity through tax mechanisms are identified.

**Keywords:** tax incentives, special tax regimes, simplified taxation system, small and medium-sized businesses, Republic of Belarus, Russian Federation, comparative analysis.

Today, business is the main force driving a country's economy forward and helping to solve many important social and economic challenges. In global practice, states use various instruments to stimulate initiative, and tax support occupies a key position among them<sup>1</sup>. This issue becomes particularly relevant within the Union State of Belarus and Russia, where harmonisation of tax systems is one of the priority areas of integration cooperation<sup>2</sup>.

Stimulating entrepreneurship through tax mechanisms is a crucial element of Russia's economic policy. The key document in this area is the "Strategy for the Development of Small and Medium-Sized Entrepreneurship in the Russian Federation for the Period up to 2030"<sup>3</sup>. The main target is to increase the share of SMEs in the country's GDP from 20% to 40%. This measure is intended to close the gap with developed economies<sup>4</sup>.

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<sup>1</sup> Markov, A.G., Sverchkov, M.N. Foreign experience of tax incentives for the development of small and medium-sized entrepreneurship // Bulletin of NGIEI. 2017. No. 10 (77). pp. 114-118. URL: <https://cyberleninka.ru/article/n/zarubezhnyy-opyt-nalogovogo-stimulirovaniya-razvitiya-malogo-i-srednego-predprinimatelstva> (date of access: 12.04.2026)

<sup>2</sup> Tararyshkina, L.I. Taxes as an instrument of integration. pp. 231-236. – Access mode: <https://elib.bsu.by/bitstream/123456789/241233/1/231-236.pdf> (accessed: 12.04.2026).

<sup>3</sup> On Approval of the Strategy for the Development of Small and Medium-Sized Entrepreneurship "Belarus – a Country of Successful Entrepreneurship" for the Period up to 2030: Resolution of the Council of Ministers of the Republic of Belarus, 17 October 2018 No. 743. – Access mode: <https://pravo.by/document/?guid=3871&p0=C21800743> (date of access: 12.04.2026).

<sup>4</sup> Entrepreneurship development strategy until 2030 approved: [website] / Strategy24. – Access mode: <https://strategy24.ru/surgut/news/utverzhdena-strategiya-razvitiya-predprinimatelstva-do-2030-goda-2> (date of access: 12.04.2026).

Five preferential tax regimes are in force in the Russian Federation. These include: the Unified Agricultural Tax (UAT), the Simplified Taxation System (STS), the Patent Taxation System (PTS), the Unified Tax on Imputed Income (UTII) – abolished since 2021, and the Tax on Professional Income (TPI), introduced as an experiment<sup>1</sup>.

The Republic of Belarus applies various measures of tax support for business. National legislation establishes several special tax regimes, including the Simplified Taxation System (STS), a single tax for agricultural producers, and a tax under the simplified system<sup>2</sup>.

Since the beginning of 2025, Belarus has adjusted the threshold values of gross revenue that entitle taxpayers to apply the STS. In particular, the maximum allowable number of receipts for operating under this regime has increased from 2.31 million Belarusian rubles to 3.5 million rubles. Also, for transition to the simplified taxation system as from 1 January 2026, the income limit has been raised from 1.73 million rubles to 2.625 million rubles<sup>3</sup>. New restrictions have been introduced on the use of the STS for organizations that have separate subdivisions, are registered as taxpayers of a foreign state, and, among others, for organizations carrying out transactions with digital tokens<sup>4</sup>.

A draft law currently under consideration by the House of Representatives of the National Assembly of the Republic of Belarus plans to index tax rates set in absolute amounts to the projected inflation rate of 107%<sup>5</sup>. This measure will affect land tax, property tax, transport tax, environmental tax, as well as personal income tax in fixed amounts.

Common features of the two states:

1. Existence of special tax regimes. Both Belarus and Russia have simplified taxation systems aimed at reducing the tax burden on small and medium-sized businesses.
2. Application of tax incentives to stimulate investment activity. Both countries have mechanisms for tax investment incentives, including investment tax credits and benefits.

<sup>1</sup> Tax Code of the Russian Federation (Part One) of 31 July 1998 No. 146-FZ. Article 18. Special tax regimes [Electronic resource]. – Access mode: [https://nalog.garant.ru/fns/nk/a573badcfa856325a7f6c5597efaaedf/#block\\_18](https://nalog.garant.ru/fns/nk/a573badcfa856325a7f6c5597efaaedf/#block_18) (date of access: 02.04.2026).

<sup>2</sup> Tax Code of the Russian Federation (Part Two) of 5 August 2000 No. 117-FZ. – Access mode: <https://www.consultant.ru> (date of access: 02.04.2026).

<sup>3</sup> Commentary to the Law of the Republic of Belarus No. 47-Z of 13 December 2024 “On Amendments to Laws” regarding the tax under the simplified taxation system [Electronic resource]. – Access mode: <https://nalog.gov.by/upload/iblock/d69/2mznqhkhyejf5vy5w4354kf1oeliwdx/%D0%9A%D0%BE%D0%BC%D0%BC%D0%B5%D0%BD%D1%82%D0%B0%D1%80%D0%B8%D0%B9%20%D0%BF%D0%BE%20%D0%A3%D0%A1%D0%9D.DOCX> (date of access: 06.04.2026).

<sup>4</sup> What changes in the application of the simplified taxation system in 2025 – explained by the Ministry of Taxes and Duties [Electronic resource] // Official website of the Ministry of Taxes and Duties of the Republic of Belarus. – Access mode: <https://nalog.gov.by/projects/publications/29067/> (date of access: 13.04.2026).

<sup>5</sup> Clear norms and balance of interests: how they plan to improve the tax system in Belarus [Electronic resource] // BELTA. – 2025. – Access mode: <https://house.gov.by/ru/interview-ru/view/ponjatnye-normy-i-balans-interesov-kak-planirujut-usovershenstvovat-nalogovuju-sistemu-v-belarusi-13157/> (date of access: 06.04.2026).

3. Gradual tightening of conditions for applying preferential regimes. Due to the need to combat tax evasion, both countries are tightening the conditions for the use of special tax regimes.

Differences:

1. Number of special tax regimes. Russia has 5 preferential regimes, while Belarus has fewer, which is due to differences in economic structure and approaches to tax administration.

2. Approaches to abolishing outdated regimes. Since 2021, Russia no longer applies the UTII. According to representatives of the Ministry of Finance and the Government, this tax did not reflect companies' economic activity and contributed to concealing income from taxation [5]. Belarus never applied such a regime, which is explained by differences in the historical development of the tax systems.

3. Level of tax integration. Russia and Belarus are working to create a common tax space within the Union State. An assessment of the functioning of the Integrated System of Indirect Tax Administration has been carried out, and information exchange on VAT payers and their transactions has been established.

4. Evaluation of tax expenditure effectiveness. Since 2017, Russia has introduced the concept of "tax expenditures", which makes it possible to assess the effectiveness of granted benefits. As of today, Russia has 388 tax expenditures, 225 of which are aimed at stimulating economic activity and increasing budget system revenues. In Belarus, a similar system is at the stage of formation<sup>1</sup>.

Conclusions from the comparative analysis of tax incentives for enterprises in the Republic of Belarus and the Russian Federation:

— Both countries pay considerable attention to tax support for entrepreneurial activity, viewing it as an important tool for economic development.

— Despite common features, the approaches of the two countries have differences determined by the specific features of their national economies.

— Within the Union State, work is underway to harmonise tax systems, which creates prerequisites for the formation of a common tax space and simplification of business conditions.

Promising directions for improving tax incentives include: further simplification of tax administration, expansion of the use of information technologies, strengthening the evaluation of the effectiveness of granted benefits, as well as gradual convergence of tax approaches within integration processes.

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<sup>1</sup> Experts from Russia and Belarus discussed systems for evaluating the effectiveness of tax expenditures and investment tax benefits [Electronic resource] // Federal Tax Service of the Russian Federation: [official website]. – Access mode: [https://www.nalog.gov.ru/rn77/about\\_fts/inttax/15054586/](https://www.nalog.gov.ru/rn77/about_fts/inttax/15054586/) (date of access: 06.04.2026).

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**«THE USE OF ONLINE SIMULATORS FOR TEACHING ENGLISH TO STUDENTS MAJORING IN "CUSTOMS AFFAIRS" IN THE REPUBLIC OF BELARUS»**

*Research Field:*

*Modern technical means as a basis of the effective border management.*

In conditions of the Republic of Belarus's active integration into the international economic space and the development of foreign trade relations, the requirements for professional training of customs service specialists are increasing.

Nowadays customs officer should be properly educated not even in customs legislation and logistics but also have a high level of foreign language communicative competence, primarily in English as the language of international business communication.

However, traditional methods of foreign language teaching do not always fully ensure the achievement of the required level of professionally-oriented language training in situation of the limited number of academic hours.

The digitalization of the educational process is a new opportunity for intensifying and individualizing foreign language teaching, which can be an excellent addition to the existing system of education. Online simulators, as an e-learning tool, make it possible to organize systematic independent work of students, ensure repeated revision of learning material, and create conditions for the formation of stable language skills and the development of professionally relevant competences <sup>1</sup>

The Customs Service of the Republic of Belarus is actively participating in international cooperation within the Eurasian Economic Union (EAEU), and cooperating with customs administrations of various countries and international organizations. English is the primary means of communication in processing foreign trade transactions, carrying out customs control of imported and exported goods, and exchanging information between customs services of different countries.

The use of English in professional activities requires customs officers to be familiar with specialized terminology in areas such as customs legislation, classification of goods according to

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<sup>1</sup> Геймификация в высшем образовании: влияние игровых подходов на мотивацию и академические достижения студентов // CyberLeninka. – 2024. – URL: <https://cyberleninka.ru/article/n/geymifikatsiya-v-vysshem-obrazovanii-vliyanie-igrovyyh-podhodov-na-motivatsiyu-i-akademicheskie-dostizheniya-studentov> (дата обращения: 03.03.2026).

The Harmonized Commodity Description and Coding System, customs procedures, international conventions, agreements, etc. A customs officer should be able to handle business documentation and correspondence in English (invoices, declarations, certificates of origin), as well as provide interpretation during customs inspections involving foreign individuals.

At the same time, the interface of the existing information infrastructure of customs authorities is in English, which requires specialists to have a sufficient level of language to effectively perform their professional duties.

Online simulators are electronic educational resources whose main purpose is to form and improve students' knowledge, skills, and abilities through a system of exercises in an interactive format, followed by automated verification of results and feedback <sup>1</sup>. The main advantages of online simulators compared to traditional forms of learning organization are:

- the availability of real-time content requires an internet connection, which is especially important for distance learning. This promotes the principle of continuous education and creates opportunities for students to learn a foreign language independently.
- interactivity of the educational process through gamification elements, visualization of individual progress, and a system of rewards and ratings.
- instant feedback allows students to quickly identify and correct errors, which helps them learn more effectively and increases their overall motivation <sup>2</sup>.

The creation of training tools involves the development of tasks aimed at developing all types of speech activity, writing and listening. Attention should be paid to developing skills in working with documentation, such as filling in customs declarations, writing business letters, and translating commercial documents, international agreements, and conventions.

The integration of audio and video content allows students to develop their listening skills and simulate situations of future professional activities for customs officers.

The inclusion of materials on related disciplines in the online simulators allows students to deepen their professional knowledge in the fields of customs, commodity science and logistics, while simultaneously improving their English language skills. The bilingual presentation of materials (in Russian and English) enhances the development of two-way translation skills, which is an essential professional competence. The assessment system should provide automatic

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<sup>1</sup> Содержание обучения профессионально-ориентированному иностранному языку для студентов таможенного дела // CyberLeninka. – 2024. – URL: <https://cyberleninka.ru/article/n/soderzhanie-obucheniya-professionalno-orientirovannomu-inostrannomu-yazyku-dlya-studentov-tamozhennogo-dela> (дата обращения: 03.03.2026).

<sup>2</sup> Веремейчик, О. В. Английский для таможенников : учебное пособие / О. В. Веремейчик. – Минск : Вышэйшая школа, 2024. – 326 с.

verification of most tasks, instant feedback with correct answers, the ability to perform exercises multiple times, and final testing.

As part of the research, a comprehensive interdisciplinary online training simulator has been developed, which, along with the main English module, includes materials from three specialized disciplines in both Russian and English. This allows for the implementation of the principle of integrated learning, where students simultaneously deepen their professional knowledge, work with terminology in the context of real-world tasks, compare formulations in two languages, and develop their professional translation skills. The training tool features flexible navigation, allowing students to choose their own learning path. In the future, it can be expanded with gamification elements, a reward system, and adapted to the individual learning pace of each student.

Thus, the use of online training tools in teaching English to future customs officers is a promising area that provides individualization, systematic independent work, and increased efficiency in developing foreign language communication competence. Interdisciplinary integration in two languages ensures a comprehensive approach and an integrated system of professional knowledge and skills. Further development of this area involves expanding functionality, adding modules, and integrating with other educational resources and learning management systems.

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**«THE SOCIAL ROLE OF INCOME TAX IN THE STATE ECONOMY:  
ANALYSIS OF THE CURRENT SYSTEM AND WAYS OF  
IMPROVEMENT»**

*Research direction:  
A secure business environment for economic development*

The personal income tax (in the Republic of Belarus, personal income tax) is one of the main components of the tax system and an effective mechanism of the country's social policy. Compared to most indirect taxes, which are usually paid by all consumers uniformly, personal income tax directly affects the income of the population, modeling the direct relationship between a person's level of well-being and the amount of his obligations to the state. This is his specific social role: he not only replenishes the treasury, but also, to a certain extent, forms social justice by regulating income distribution and participating in the financing of social programs. In the economy of Belarus, personal income tax performs several important tasks simultaneously. On the one hand, it provides a significant share of the revenues of the republican and local budgets, which is especially important in conditions of limited financial capabilities of the state and high dependence on administered revenues. On the other hand, through the structure of rates, benefits and deductions, the personal income tax affects the income level of the population, stimulates official employment, supports low-income social groups and enhances the transparency of economic activity. It is the combination of fiscal and social functions that increases the relevance of the analysis of the current personal income tax system in Belarus. The relevance of this topic is determined by a number of factors. Among them are the growing level of income inequality, unstable economic growth, the need to support socially vulnerable segments of the population, as well as the increasing importance of government programs in the field of health, education and social protection. In such a situation, it becomes especially important to understand how effectively the personal income tax copes with its social role and whether its tools can be used more flexibly and specifically. In an environment where the population is sensitive to any change in the tax burden, issues of fairness, transparency, and clarity of the personal income tax system are of particular importance<sup>1</sup>.

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<sup>1</sup> Белорусская энциклопедия. Бюджетно-налоговое регулирование: Белорусская энциклопедия. – Минск, 2025. – URL: <https://belarusenc.by/belarus/detail-article.php?ID=11305> (date of access: 28.03.2026)

The topic under consideration has not only theoretical significance, but also direct practical relevance to the daily lives of citizens, since it concerns their income level, accessibility of social services and a sense of fairness in the distribution of the tax-theoretical basis of the social role of personal income tax. From the point of view of economics, personal income tax is usually assessed through several key functions: fiscal, regulatory, distributive, and control.

The fiscal function is associated with the formation of the revenue side of the state budget, since it is through personal income tax that the state collects funds to finance national expenditures, without linking the collection directly to specific goods or services. This makes it possible to ensure the stability and predictability of incomes with a relatively transparent correlation between the income level of the population and the volume of budget revenues.

The regulatory function of the personal income tax is manifested in its ability to influence the economic behavior of the population. Changes in rates, expansion or narrowing of the list of benefits, complication or simplification of payment procedures can stimulate or slow down decisions on employment, entrepreneurship, investment in education and housing. In this sense, personal income tax becomes not just a passive source of income, but an active instrument of government regulation<sup>1</sup>.

The special role of personal income tax in the social sphere is manifested through its distributive function. This tax directly depends on the level of earnings of an individual or family, which makes it possible to use the system of rates and deductions as a tool for "social equalization." It helps to reduce the income gap between the wealthier and less affluent segments of society. According to the concept of discriminatory taxation, the progressive personal income tax scale helps to reduce inequality: higher rates are introduced for large incomes, and tax benefits and deductions are mainly available to low- and middle-income groups.

The controlling role of personal income tax is determined by the process of its administration, which includes the collection and processing of data on citizens' incomes, employment, salary structure, and types of work. The information obtained serves as a basis for analyzing the socio-economic situation, calculating the poverty level, developing social support measures, and forecasting budget revenues. The personal income tax combines fiscal responsibilities with a key information function, providing authorities with data on the well-being of the population.

The social role of personal income tax in Belarus is largely determined by how the system combines the principles of fairness and efficiency. On the one hand, the state strives to ensure that

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<sup>1</sup> Государственная налоговая служба Беларуси (МНС). Подоходный налог с физических лиц / Налоговый кодекс Республики Беларусь. – Минск, 2024. – Официальный сайт МНС.  
– URL: [https://nalog.gov.by/entrepreneurs/taxes/tax\\_systems/income\\_tax/](https://nalog.gov.by/entrepreneurs/taxes/tax_systems/income_tax/). (date of access: 28.03.2026)

basic social benefits are accessible to all residents, and on the other hand, it does not overload working citizens with an excessive tax burden in order not to encourage tax evasion and not undermine motivation for formal employment. Social justice here is manifested in ensuring that the tax burden is proportional to a person's ability to pay, and not unified for everyone, regardless of income level<sup>1</sup>.

It is also important to emphasize that the social role of personal income tax is not only to redistribute income, but also to create a sense of solidarity and responsibility among citizens. When people see that their taxes are being directed towards social programs, healthcare, education, and infrastructure, they are more likely to accept taxes as a legitimate element of the social contract. In this sense, personal income tax becomes a tool for social integration, helping to strengthen citizens' trust in the state and reduce tension in society. The social role of personal income tax is considered a multidimensional phenomenon that includes fiscal, distributive, and regulatory dimensions, as well as its impact on social behavior and taxpayer loyalty.

In the Republic of Belarus, taxation of personal income is regulated by Chapters 11 and 111 of the Tax Code of the Republic of Belarus, as well as several by-laws, including regulatory legal acts of the Ministry of Taxes and Duties, the Government and local authorities. These legal acts define the range of taxable objects, tax rates, the procedure for calculating and paying taxes, as well as granting benefits and deductions. The personal income tax system in Belarus has a stable and well-developed regulatory framework, which allows for relative predictability for taxpayers.

The main objects of taxation include income from work received in the form of wages, bonuses, allowances and other remuneration, as well as income from business activities, income from civil law contracts, dividends, interest, income from the sale of property and some types of passive income. It is important that personal income tax in Belarus is usually administered at the source of income payment: the employer or tax agent is required to calculate and withhold the tax and then transfer it to the budget. Individuals, as a rule, pay tax on their own only if they receive income that is not related to employment or business activities, or if it is necessary to clarify tax obligations<sup>2</sup>.

The betting system in Belarus is characterized mainly by a proportional approach, but with noticeable elements of progression. The base rate of 13% applies to many types of income, but higher rates apply if certain income thresholds are exceeded. For example, a 25% rate may be applied for incomes exceeding the established limit, and a 30% rate may be applied for individual

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<sup>1</sup> Министерство по налогам и сборам Республики Беларусь. Налоги в 2025 году: что меняется в законодательстве. – Информационный материал МНС. – Минск, 2024.  
– URL: <https://nalog.gov.by/projects/publications/28525/> (date of access: 28.03.2026)

<sup>2</sup> Налоговая система Республики Беларусь: отчетность и налогообложение. – Международный налоговый портал GSL. – URL: <https://gsl.org/ru/taxes/belarus/>. (date of access:28.03.2026)

entrepreneurs with a high level of revenue. This structure makes it possible to increase the fiscal burden on higher incomes and on entrepreneurs with large businesses, which partially corresponds to the social goals of income redistribution.

However, it is important to note that there is still no fully progressive scale with several differentiated income levels in Belarus. Most income groups pay at the same basic rate, which reduces the distributive potential of the tax and limits its ability to smooth out existing income differences. At the same time, certain increased rates may create additional incentives for tax evasion or the use of informal income payment methods, especially in the field of entrepreneurship and self-employment.

Tax deductions and benefits play an important role in the current system. In Belarus, various types of deductions are applied: standard (for the maintenance of children, for one parent in a family, for certain categories of citizens), social (for expenses on education, medical services, life and health insurance, voluntary pension insurance) and other benefits for certain categories of the population (disabled, pensioners, large families, military personnel and others). These mechanisms make it possible to reduce the tax base for low- and middle-income taxpayers, which increases their real income on hand and helps reduce poverty and extreme poverty<sup>1</sup>.

Social deductions for education and medical services encourage the population to invest in "human capital": to receive additional education, undergo expensive medical procedures, and insure life and health. This increases the competitiveness of the country's economy, improves demographic indicators, and reduces the state's burden on social protection, as the population partially takes care of their own health and professional development. At the same time, the effectiveness of these deductions directly depends on the level of taxpayers' income: the lower the income, the smaller the actual effect of the deductions due to the limited tax base itself.

Personal income tax administration in Belarus relies heavily on employers and tax agents, who are required to withhold tax and transfer it to the budget. This approach minimizes the risks of non-payment and simplifies income control for the working population. In recent years, the Ministry of Taxes and Duties has been actively developing digital services: electronic declaration, online services for clarifying the status of taxpayers, filing notifications on the application of tax deductions, online tax calculation systems and verification of the correctness of payments. This

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<sup>1</sup> Правительство Республики Беларусь. Задачи Правительства по совершенствованию налоговой системы Беларуси на 2025–2029 годы. – Информационный обзор. – Минск, 2024.  
– URL: <https://vgmbuh.by/novosti/sovershenstvovaniye-nalogovojsistemy/>. (date of access: 28.03.2026)

simplifies interaction with taxpayers, reduces the administrative burden, and increases the transparency of the tax payment process<sup>1</sup>.

However, there are still some problems with the current system. Among them are the limited differentiation of rates, the difficulty in understanding and using tax deductions for a part of the population, as well as the weakness of control mechanisms for informal income and income in the digital sphere. These aspects reduce the social role of personal income tax in the economy of Belarus. This role of tax in the Republic of Belarus is manifested in the interrelation of three key aspects: income redistribution, financing of social programs and the impact on the behavior of the population in the field of employment and social activity.

Personal income tax is a key source of financing for the welfare state: Its proceeds go to education, healthcare, social protection, pensions, housing and communal services and regional development. Thanks to this, it is possible to maintain a minimum standard of living and security for most citizens, even with an uneven distribution of income by region and industry. In conditions of a strong dependence of the budget on managed incomes, it is the income tax that ensures the sustainability of social spending.

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<sup>1</sup> Налоговая система и уровень налоговой нагрузки. – Официальный сайт Президента.  
– URL: <https://president.gov.by/ru/belarus/economics/nalogi-i-bjudzhet/nalogovaja-sistema>. (date of access: 28.03.2026)

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## **«DIGITAL TRANSFORMATION OF INTERNATIONAL TRADE AND CUSTOMS»**

*Research Field:*

*Innovative technologies in international trade.*

Digitalization of customs procedures is a set of measures aimed at the transition to electronic document management, automation of processes, use of analytical tools and integration of systems to increase the efficiency, transparency and speed of customs administration, covering all stages of foreign economic activity – from declaration to control of movement of goods. The basis for the implementation of digital transformations in the Eurasian Economic Union was the EAEU Customs Code<sup>1</sup>, which entered into force on January 1, 2018, which consolidated strategic norms consistent with the concept of "digital customs" developed by the World Customs Organization, and since 2018, electronic customs declaration has become mandatory, except in strictly defined cases.

Within the framework of the EAEU Digital Agenda focuses on the following key aspects -digitalization of document management, the introduction of electronic preliminary information, the improvement of electronic declaration technologies with an emphasis on automatic registration and automatic release of goods, as well as the creation of single window systems to simplify the interaction of foreign trade participants with government agencies.

Electronic declaration allows participants in foreign economic activity to submit customs declarations in electronic form without visiting the offices of customs authorities, which significantly speeds up processing and reduces the operating costs of companies. Specialized Electronic Declaration Centers (EDCs) accept and verify declarations and other documents in electronic form, as well as make decisions on the release of goods. Automatic registration and automatic release technologies are actively developing in the EAEU member States: if certain conditions are met, such as the confirmed authenticity of an electronic signature, the fact of customs payments and the availability of necessary documents in electronic registers, the declaration automatically proceeds to the release stage, while for low-risk goods, release is carried out without the participation of a customs inspector.

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<sup>1</sup> The Customs Code of the Eurasian Economic Union (Application № 1 to the Treaty on the Customs Code of the Eurasian Economic Union) : ed. dated May 29, 2019 // ConsultantPlus. Russia : reference. the legal system (date of application: 13.04.2026).

Risk management systems (RMS) serve as a tool to identify possible violations and accelerate the processing of low-risk goods, based on the international standards of the World Customs Organization and the principles of risk management. The process includes the collection and processing of data on customs control facilities, risk assessment, description of indicators, development and approval of risk profiles, identification of measures to minimize them, selection of objects for inspection, application of control measures, as well as analysis and monitoring of the results. Modern systems use machine learning and predictive analytics algorithms to assess the likelihood of violations, automatically generate document packages, and track cargo status, as TradeNet systems being used in Singapore or Smart Customs being implemented in China.

Since February 11, 2026, the EAEU has introduced the mandatory use of navigation seals for international transportation by road and rail if the route passes through the territory of two or more member states of the Union, which allows real-time tracking of the movement of a vehicle with cargo.

Blockchain technologies are increasingly penetrating the field of international trade and customs, offering a fundamentally new approach to organizing information interaction between participants in foreign economic activity. Each new block contains a hash – a unique digital fingerprint – of the previous one, which makes the chain virtually immutable.

One of the key advantages of blockchain in customs administration is ensuring a high degree of transparency. All transactions, documents and cargo statuses are recorded in a single digital space, which only authorized parties have access to.

As A. O. Bondarenko notes, «the introduction of blockchain contributes to the formation of an end-to-end digital footprint of goods, which ensures continuity of control at all stages of international transportation and minimizes the risks of unauthorized interference with data»<sup>1</sup>.

Depending on the requirements for security, access and management, different types of blockchains can be used in the customs sphere. Public blockchains, despite their high degree of decentralization, are of little use for government systems due to the data transparency and transaction processing speed restrictions. Private blockchains controlled by a single administrator, such as the national Customs Service, provide a high level of security and manageability, but limit the involvement of other parties.

Successful blockchain applications have been already implemented practically in international trade. Thus, the CargoX platform in Egypt made it possible to shorten the cargo release period from 29 to 9 days, eliminate 11 paper documents and reduce document management

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<sup>1</sup> Bondarenko A. O. Improving the quality of information interaction between participants in foreign economic activity and customs authorities during end-to-end customs control based on blockchain technology / A. O. Bondarenko, O. A. Mishchenko // Bulletin of the Russian Customs Academy. – 2022. – № 4. – P. 53–63.

costs from 600 to 165 US dollars per transaction. In Latin American countries, the CADENA system provides data exchange in the capacity of an authorized economic operator. The United States Customs and Border Protection has set forth a blockchain solution to speed up document processing and improve business interaction. Special attention was drawn to the project developed by IBM and Maersk, the global TradeLens platform, which digitizes trading operations and allows participants to exchange data in a secure environment. Similar initiatives are developing in South Korea, where the customs service, together with the Malltail operator, is creating a platform to speed up mail processing taking into account the rise of e-commerce.

As emphasized by A. A. Kantarovich, «the digitalization of international trade through blockchain is not just a technological upgrade, but a fundamental shift in the paradigm of interaction between government and business, where trust is built not through documents, but through data immutability»<sup>1</sup>.

Artificial intelligence and machine learning are increasingly being introduced into the processes of international trade and customs control, allowing for a significant increase in the efficiency and accuracy of operations. The integration of X-ray systems with deep learning techniques helps automate vehicle scanning and helps detect contraband or hidden goods. AI is also used for semantic analysis of the descriptive part of declarations using natural language processing (NLP) technologies, which speeds up verification and allows customs officers to identify discrepancies between the declared and actual characteristics of the cargo.

Another important area is the automatic classification of goods according to the codes of the Harmonized System (HS), where AI-based software compares product data with the corresponding classification categories. For example, such solutions have already been applied in China, in Guangzhou, where there is an intelligent document verification system capable of recognizing and verifying more than a hundred types of inspection and quarantine certificates from different countries. In the European Union, automatic cargo screening programs using machine learning are being used, and in the United States, image recognition technologies are being tested to identify prohibited items in express delivery. ICustoms estimates that the introduction of AI can reduce cargo clearance time by up to 40%, as well as reduce the cost of supply chain management, transportation and warehousing by 25–40% and 5–10%, respectively<sup>2</sup>.

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<sup>1</sup> Kantarovich, A. A. Key aspects of digitalization of international trade through the introduction of blockchain technology / A. A. Kantarovich // Human Progress. – 2025. – Vol. 11, issue 11. – P. 7–11.

<sup>2</sup> Review of international practices in the introduction and use of artificial intelligence elements in the field of foreign economic activity in the context of the development of the "single window" mechanism [Electronic resource]. – URL: <https://eec.eaunion.org/upload/medialibrary/d13/mh9rlgpxuwtl1f6rdk1c4eea7n56bz9/OBZOR-II-2025.pdf> (date of application : 13.04.2026).

In logistics, the Internet of Things (IoT) is a comprehensive solution that combines various devices, data transmission networks, platforms for information analysis and integration with logistics systems. Such devices include GPS/GLONASS modules, temperature, humidity, shock, tilt, door opening sensors, and in some cases, gas and smoke sensors. They continuously collect and transmit data via mobile, satellite, or energy-efficient LPWAN networks (such as LoRaWAN or NB-IoT) to centralized monitoring platforms. One of the key advantages is the ability to track the location of the container in real time, recording delays, parking and deviations from the route. An example of such solutions are smart labels that combine traditional shipping information with built-in sensors and wireless connectivity that monitor temperature, location, and cargo handling conditions along the route.

Thus, innovative technologies are transforming international trade and customs, providing unprecedented levels of automation, transparency and speed of customs operations. Digitalization based on electronic document management, automatic release of goods and risk management systems can significantly reduce time and costs when moving goods, and the introduction of blockchain creates an end-to-end digital footprint that eliminates data forgery and builds trust based on immutable records. The use of artificial intelligence and machine learning improves the accuracy of product classification, identifies discrepancies in declarations and automates control, while the Internet of Things (IoT) provides continuous monitoring of the location and conditions of cargo transportation in real time.

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### **«CHINESE LANGUAGE AS A COMPONENT OF PROFESSIONAL COMPETENCE OF CUSTOMS SPECIALISTS OF THE REPUBLIC OF BELARUS»**

*Research direction:*

*Professional standards in the field of foreign economic activity: a national and international component.*

The Republic of Belarus is actively developing trade and economic relations with the People's Republic of China, which necessitates the formation of linguistic competences among Customs officers to effectively carry out their professional responsibilities. The volume of trade turnover between the countries shows a steady upward trend, leading to an increase in the number of Customs operations involving Chinese companies. In this context, knowledge of the Chinese language becomes an important element of the professional competence of a Customs specialist. The professional competence of a Customs specialist is an integral characteristic comprising a set of knowledge, skills, abilities and personal qualities. A special place in the structure of a specialist's professional competence is taken by communicative competence, which implies the ability of a customs officer to effectively interact with foreign partners and colleagues from the customs services of other countries. Productive interaction involves communication in foreign languages, taking into account the specifics of professional activity, which, in turn, requires the specialist to master specialized terminology in the field of customs sphere.

Practical application of the Chinese language in the activities of Customs authorities of the Republic of Belarus covers a wide range of professional situations. Knowledge of Chinese allows Customs officers to directly communicate with representatives of Chinese companies, clarify information about the characteristics of goods and terms of delivery without involving interpreters. Proficiency in Chinese is necessary when working with accompanying documents: commercial invoices, packing lists, certificates of origin. International cooperation of Customs authorities of the Republic of Belarus with the Customs Service of China implies participation of Belarusian specialists in joint events, including working meetings, seminars and exchange programmes.

Table 1 – Language needs of various categories of Customs specialists of the Republic of Belarus

<b>Category of specialist</b>	<b>Language needs</b>	<b>Description of practical application</b>
<b>Customs control inspectors</b>	Basic Chinese language proficiency	Direct interaction with Chinese <b>participants in foreign economic</b>

	for oral communication	<b>activity during Customs clearance of goods</b>
<b>Specialists in Customs expertise</b>	Advanced knowledge of specialized terminology in Chinese	Working with technical documentation, certificates and descriptions of goods in Chinese
<b>Heads of Customs divisions</b>	Fluent Chinese for business negotiations	Participation in international meetings, signing agreements, coordination of joint projects
<b>Foreign economic activity analysts</b>	Analytical reading of professional literature and documents	Studying Chinese experience in <b>Customs administration</b> , analysis of <b>regulatory legal acts</b> of the PRC

Analysis of the personnel structure of the Customs authorities of the Republic of Belarus shows a gradual increase in the number of specialists Chinese proficient in Chinese, but their number remains insufficient. This creates difficulties while organising work and leads to the need to engage external interpreters.

Table 2 –Needs for interpreting services for Customs authorities of the Republic of Belarus

<b>Type of interpreting</b>	<b>Level of complexity</b>	<b>Characteristics of the need</b>
Consecutive interpreting from/into Chinese	High	Regular need during business meetings and consultations with Chinese partners
Written translation of Customs documents from from/into Chinese	Very high	Constant necessity for processing accompanying documentation for goods from the PRC
Simultaneous interpreting from/into Chinese	High	Periodic need at international events, legal settings, and conferences with Chinese experts
Translation of regulatory legal acts of the PRC	Very high	Occasional need for studying Chinese Customs legislation and practice

The lack of Chinese-speaking customs officers means that professional translators are required to provide services at significant cost. These funds could be directed towards training our own specialists, which in the long term would ensure more efficient use of resources.

A particular difficulty is mastering Customs terminology in Chinese. Many Chinese Customs terms have no direct equivalents in Russian, which creates difficulties in translation. In this context there is a need to create specialised Chinese-Russian Customs dictionaries and electronic terminological databases with the possibility of constant updating.

Improving the system of training Customs personnel requires a comprehensive approach. It seems promising to include the study of Chinese as a compulsory language in the curriculum for training customs specialists, along with English. For current specialists, advanced training courses with a practical focus should be organised, including work with real Customs documents and

modelling of authentic professional communication with the use of modern information technologies (electronic courses, mobile applications and online platforms for experience exchange). Organising internships in China is an effective method.

Thus, proficiency in the Chinese language is an important component of the professional competence of specialists in Customs affairs of the Republic of Belarus. Investments in language training of Customs personnel will ensure increased efficiency of Customs administration and will contribute to strengthening bilateral cooperation between the countries.

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## **«THE USE OF MODERN TECHNOLOGIES IN CUSTOMS CONTROL»**

*Research Field:*

*Modern technical means as the basis for effective customs control at the border.*

Over the past few years, digital technologies have covered almost all areas of human life. Customs authorities are no exception, they actively use modern technologies, applying an information approach. Modern technologies allow us to solve a number of tasks of customs authorities, such as ensuring economic security, helping business development, speeding up the movement of goods across the customs border, interacting with other government agencies, as well as the member states of the Eurasian Economic Union through the exchange of information in real time. Currently, many information systems are already functioning, such as electronic document management, electronic declaration, etc. Modern technologies automate operations, increase transparency and speed of customs clearance <sup>1</sup>.

One of the most striking examples of innovative technology applications is the introduction of navigation seals for cargo tracking. The implementation of this technology is planned for 2026 and will take place in several stages.

The first stage of the product tracking system implementation begins on February 11, 2026. During this period, they will be monitored.:

When transported by road:

- Sanctioned goods, as well as alcohol and tobacco. This applies to cases when they are moved through the customs transit procedure, as part of trade between the EAEU countries or during export.
- Goods that are considered "high-risk" and are transported through the customs transit procedure.
- Nicotine products and their raw materials for export. (The specific list of such goods was determined by the decision of the EEC Council dated 07/08/2025 No. 48).

When transported by rail:

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<sup>1</sup> "Digital Customs": information technologies and their role in the customs system / Mogilev Regional Executive Committee. – Access mode: <https://mogilev-region.gov.by/page/101660-cifrovaya-tamozhnya-informacionnye-tehnologii-i-ih-rol-v-tamozhennoy-sisteme?ysclid=mnumig2og2794465412>. – Date of access: 11/08/2025.

-Sanctioned goods, as well as alcohol and tobacco. This applies to cases when they are moved through the customs transit procedure, as part of trade between the EAEU countries or during export.

Six months after the launch (the second stage):

-The tracking system (using navigation seals) will expand to all goods that are transported by road under the transit procedure.

- It will also cover "high-risk" goods that are transported by rail under the transit procedure.

After some more time, namely after 480 days from the start of tracking (the third stage):

- Navigation seals will become mandatory for all goods transported by trains as part of the customs transit procedure<sup>1</sup>.

Artificial intelligence technologies are also actively used in the process of digitalization of customs processes, for example, a risk management system plays an important role in customs control, which, depending on a number of criteria, classifies declared goods into low, medium and high-risk categories. One of the most promising areas of artificial intelligence use is data mining or Data Mining. This technology allows you to find the most important information from large and unstructured amounts of data. Data Mining allows you to predict the risk of violations, identify non-standard situations and automatically select products for referral to additional forms of control. This technology makes it possible to automate the document verification procedure, it allows you to quickly identify false information in the declaration. When nonconformities are identified, the RMS marks the batch of goods as high-risk, which allows for faster decisions on conducting more thorough control.

The branch of artificial intelligence is computer vision technology that uses convolutional neural network algorithms. This system is capable of processing visual information, on the basis of which it identifies counterfeit goods. This technology is used to verify various signs of authenticity of goods, such as labeling, trademarks, design and packaging of goods. Computer vision technology is characterized by a high level of accuracy, which makes it possible to automate the process of product identification and reduce the influence of the human factor<sup>2</sup>.

Let's take the digital twin technology as an example of Russia. This technology allows you to predict the activities of participants in foreign economic activity. It is a digital copy of the participant of the foreign economic activity created on the basis of information received from the

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<sup>1</sup> The use of navigation seals under the Agreement of April 19, 2022/ State Customs Committee of the Republic of Belarus. – Access mode: <https://www.customs.gov.by/participants-ved/perevozchikam/primeneniye-navigatsionnykh-plomb-v-ramkakh-dekreta-vysshego-gosudarstvennogo-soveta-soyuznogo-gosuda/>. – Access date: 10.04.2026.

<sup>2</sup> Prospects for the use of artificial intelligence in customs control of the movement of goods containing intellectual property objects / Bulletin of Innovative Technologies. – Access mode: <https://bitjournal.ru/index.php/BIT/2520283920250309>. – Access date: 13.03.2026.

accounting systems of the declarant and the Unified Automated System of customs authorities. Based on this technology, a decision is later made to carry out customs control after the release of the goods.

Also, when selecting objects for customs control after the release of goods, the "Personal Account" of the participants of foreign economic activity and the "Customs Check" service are used. These services allow the exchange of documents in electronic format, provide foreign trade participants with information on the results of control, provide the opportunity to send messages about objections to the inspection report, as well as the opportunity to submit reports on foreign trade transactions. To select the objects of customs control after the release of goods, information about export and import operations obtained from these services is used<sup>1</sup>.

Today, information technologies are at a high level of development, which dramatically simplifies the work of customs authorities. The introduction of digital technologies makes it possible to optimize the processes of inspection and control of goods, as well as accelerate their release. Customs authorities are actively integrating digital technologies into their work, and goods transported across the customs border must be controlled using modern technologies. Automated document management and electronic information exchange reduce the likelihood of human error. At the moment, one of the tasks of the customs authorities is to implement the digital transformation of customs clearance and control using advanced technologies such as AI and the analysis of large amounts of data. An important area is the development of a risk management system that, thanks to self-learning algorithms and new technologies, will be able to more accurately analyze and detect risks<sup>2</sup>.

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<sup>1</sup> Improving customs control after the release of goods based on digital technologies / CyberLeninka. – Access mode: <https://cyberleninka.ru/article/n/sovershenstvovanie-tamozhennogo-kontrolya-posle-vypuska-tovarov-na-osnove-tsifrovyyh-tehnologiy/viewer>. – Access date: 13.03.2026.

<sup>2</sup> Modern information technologies in the tourism industry / Young scientist. – Access mode: <https://moluch.ru/archive/502/110265?ysclid=mnxqopin20524270761>. – Date of access: 14.02.2026.

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**«DIGITAL TRACING OF GOODS AS A TECHNICAL MEANS OF  
ENSURING ECONOMIC SECURITY IN THE REPUBLIC OF BELARUS»**

Research area:  
Modern technical means as a basis of the effective border management.

Economic security, according to the National Security Concept of the Republic of Belarus<sup>1</sup>, is defined as the protection of national interests from internal and external threats, ensuring sustainable development. In an open economy and membership in the Eurasian Economic Union of the Republic of Belarus (hereinafter referred to as the EAEU), significant threats include: poorly controlled turnover of counterfeit products, "gray" parallel imports that negatively affect the competitive environment, as well as the loss of fiscal control over cross-border commodity flows.

Customs authorities, endowed with fiscal, regulatory and law enforcement functions<sup>2</sup>, traditionally resist these challenges. However, classical control methods demonstrate limited effectiveness in relation to digital evasion schemes: underestimation of customs value, incorrect indication of HS codes, false declaration of origin of goods. There is a need for a mechanism that provides end-to-end visibility of the flow of goods all the way from the external border to the end consumer.

The purpose of this study is to substantiate that digital traceability of goods is not an auxiliary administrative procedure, but also a basic element of the economic security system that directly affects the state of competition in the market and the fiscal stability of the state.

The international legal level of the product traceability system is regulated by the Agreement on the Mechanism of Traceability of Goods Imported into the Customs Territory of the EAEU, signed on May 29, 2019 in Nur-Sultan<sup>3</sup>. The document established the principle of end-to-end digital control and the obligation of interstate data exchange on imported goods. The logical continuation was the Decision of the Eurasian Intergovernmental Council No. 5 dated

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<sup>1</sup> On the Concept of National Security of the Republic of Belarus : decision of the All-Belarusian People's Assembly dated 25 April 2024 No. 5 // National Legal Internet Portal of the Republic of Belarus. – URL: <https://pravo.by> (accessed: 03.04.2026).

<sup>2</sup> On Customs Regulation in the Republic of Belarus : Law of the Rep. of Belarus dated 10 January 2014 No. 129-Z // Etalon-Online. – URL: <https://etalonline.by> (accessed: 07.04.2026).

<sup>3</sup> Agreement on the Mechanism for Tracing Goods Imported into the Customs Territory of the Eurasian Economic Union [Electronic resource] : [concluded in Nur-Sultan on 29 May 2019] // ConsultantPlus. Belarus / LLC "YurSpektr", National Centre of Legal Information of the Rep. of Belarus. – Minsk, 2026.

September 30, 2025<sup>1</sup>, which defines the conditions for the entry into force of the goods traceability mechanism on a permanent basis after 9 months from the date of official publication.

The national level is represented by Decree of the President of the Republic of Belarus No. 496 dated December 29, 2020<sup>2</sup>, which created the legal prerequisites for the functioning of the national segment of the system. Practical implementation is regulated by Council of Ministers Resolution No. 528, which defines a list of traceable goods (washing machines, televisions, vacuum cleaners, electric drills, irons, food processors and other items) and sets deadlines for the introduction of traceability in certain categories<sup>3</sup>.

The technological essence of the traceability mechanism is that each imported product is assigned a unique batch registration number, which follows along with the product to the final buyer. If the digital chain is interrupted – there is no registration, the data does not converge – the system immediately records the violation, and then law enforcement agencies carry out verification actions.

This mechanism operates in three interconnected directions at once, namely:

1) *Competition*. Goods cannot be legally sold on importation without registration. The system reads the chain breaks even before the goods reach retail, and the "gray" batches simply do not reach the shelves. As a result, those who do business according to the rules, legitimate importers and domestic producers, gain a competitive advantage.

2) *Fiscal control*. Each item is linked to a specific customs declaration. If the cost or volume was underestimated during import, this will definitely be noticed at the sale stage: the stock remains will not match the reporting. For the violator, the risks become too high, and evasion becomes unprofitable.

3) *Fight against corruption*. On-site inspections create an additional burden on customs authorities, generate some business costs during such inspections, and moreover, allow for corruption risks. Reducing personal interaction between officials and participants in foreign economic activity eliminates the presence of corruption-causing factors.

Thus, digital traceability is transformed from an auxiliary administrative procedure into a system-forming element of the economic security of the Republic of Belarus. For the first time in domestic practice, a comprehensive impact mechanism is being implemented: one system

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<sup>1</sup> On the Commencement of Operation of the Goods Tracing Mechanism : decision of the Eurasian Intergovernmental Council dated 30 September 2025 No. 5 // National Legal Internet Portal of the Republic of Belarus. – URL: <https://pravo.by/document/?guid=3871&p0=F92500297> (accessed: 10.04.2026).

<sup>2</sup> On Goods Tracing : Decree of the President of the Rep. of Belarus dated 29 December 2020 No. 496 // Etalon-Online. – URL: <https://etalonline.by> (accessed: 11.04.2026).

<sup>3</sup> On Amending the Resolution of the Council of Ministers of the Republic of Belarus dated 30 June 2023 No. 528 : resolution of the Council of Ministers of the Rep. of Belarus // National Legal Internet Portal of the Republic of Belarus. – URL: <https://pravo.by> (accessed: 11.04.2026).

simultaneously minimizes three interrelated threats – unfair competition, fiscal losses and corruption risks in customs administration. Before the introduction of traceability, these problems were solved in isolation, which limited their overcoming. Currently, they are linked into a single digital control chain.

The transition of the goods traceability mechanism in the EAEU to a permanent basis in 2026 reinforces this model at the interstate level. For the Republic of Belarus, the priority areas for further development are: expanding the list of traceable goods by including high-risk categories (electronics, spare parts, equipment), as well as in-depth integration with the Electronic Mark mandatory labeling system, which provides an additional level of verification for the end user.

Consequently, digital traceability forms the institutional basis for the sustainability of the national economy and creates the prerequisites for the functioning of fair competition in the domestic market.

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**«IMPLEMENTATION OF A CLOUD SERVICE FOR DIGITAL  
ARCHIVING OF A CULTURAL HERITAGE: PROSPECTS FOR  
BELARUS-CHINA COOPERATION»**

*Research Field:  
Innovative technologies in international trade.*

In the context of deepening international integration, the problem of illicit trafficking of cultural heritage across customs borders is becoming transnational. Since September 2022, public security organs of the People's Republic of China (hereinafter: the PRC or China) have solved more than 1,200 cases related to crimes involving cultural relics (over 3,100 valuable cultural relics and more than 470,000 general cultural relics were seized)<sup>1</sup>. This indicates the high activity of international criminal groups, which poses a threat to the cultural heritage of Belarus. The development of a strategic partnership between the Republic of Belarus and China creates unique conditions for realizing joint projects aimed at legal harmonization and implementing cutting-edge technologies to address these threats.

Key aspects regarding the protection of cultural heritage within the context of Belarus-China cooperation are highlighted in documents such as:

The Treaty on Friendship and Cooperation between the Republic of Belarus and the PRC dated May 10, 2015;

Directive of the President of the Republic of Belarus No. 9 “On Advancing Belarus-China Bilateral Relations” dated December 3, 2021;

The Agreement on Economic and Trade Cooperation between the Eurasian Economic Union and its Member States, of the one part, and the People's Republic of China, of the other part;

The Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Properties dated November 14, 1970.

Based on the provisions of the presented regulatory framework, the main areas of interaction include:

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<sup>1</sup> SCIO briefing on promoting high-quality development: National Cultural Heritage Administration : State Council Information Office. — URL: [http://english.scio.gov.cn/pressroom/node\\_9013567.html](http://english.scio.gov.cn/pressroom/node_9013567.html) (date of access: 30.03.2026).

Customs cooperation (implementation of the Single Window mechanism and the Chinese concept of “Three Smart Spheres” (Smart Customs, Smart Borders, and Smart Connectivity))<sup>1</sup>;

Application of digital technologies (joint use of artificial intelligence, big data, and robotics technologies);

Development of customs infrastructure (modernization of technical means of customs control, information technologies, and auxiliary equipment used at checkpoints);

Educational interaction (creation of joint programs, including using distance learning technologies for personnel training).

A promising project is the creation of a cloud service for the digital archiving of cultural heritage.

A cloud service is a secure electronic database (registry) of cultural heritage of Belarus and the PRC with remote access for customs authorities and expert institutions. The project includes the following components: digital passports of cultural heritage (descriptions, photos, and provenance history of items); a registry of expert opinions (digitized results of examinations); and an operational data exchange model – a secure digital channel connecting the information systems of the customs services of Belarus and China, ensuring real-time information exchange on cultural relics.

The following plan is proposed for the implementation of the cloud service.

Stage one – Formation of a unified database of cultural heritage for the customs authorities of the Republic of Belarus and the PRC. For example, Belarus maintains the “Bank of Information on Historical and Cultural Heritage of the Republic of Belarus”, which contains 5,685 objects. In the PRC, the list of Chinese cultural relics forbidden to be exhibited abroad functions, which includes a catalog of antiques and archeological artifacts<sup>2</sup>.

Advantages of creating a unified database of cultural heritage of the PRC and Belarus: automatic checks of cultural values in the database; advancement in historical and cultural research of both states; creation of virtual exhibitions in museums and provision of higher quality cultural services.

Stage two – Selection of cloud platform. For instance, one of the leading providers of cloud solutions in Belarus is the company beCloud. The largest cloud computing company in China is recognized as Alibaba Cloud.

Stage three – Training of customs officers, which can be carried out in two ways.

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<sup>1</sup> Zalessky, B. Cooperation Space. Chronicle of Economic Interaction of the Republic of Belarus with the Countries of the Commonwealth of Independent States / B. Zalessky. – Palmarium Academic Publishing, 2024. – 244 p.

<sup>2</sup> List of Chinese cultural relics forbidden to be exhibited abroad: Wikipedia. – URL: [https://en.wikipedia.org/wiki/List\\_of\\_Chinese\\_cultural\\_relics\\_forbidden\\_to\\_be\\_exhibited\\_abroad](https://en.wikipedia.org/wiki/List_of_Chinese_cultural_relics_forbidden_to_be_exhibited_abroad) (date of access: 30.03.2026).

Firstly, through the application of cloud services in the training of customs officers. Training customs officers to work with the cloud service for digital archiving of cultural heritage involves: using platforms such as “Moodle” to organize distance courses; conducting webinars with Chinese and Belarusian experts; and developing interactive training modules.

Secondly, by enhancing the institute of customs attaches, which represents the activity of officials of the customs service of one state on the territory of another state on a permanent basis. Models for implementing this approach include: creating a special representative office of a state government body; or attaching department officials to a diplomatic mission (both embassy and consulate) in the host country<sup>1</sup>.

The main objectives of the introduction of the institute of customs attaches may contain:

Ensuring uniformity of legal regulations regarding the movement of cultural heritage in the practice of China and Belarus;

Simplification and acceleration of customs operations and customs control via the cloud service;

Organization of information exchange to ensure quality control over the movement of cultural heritage;

Development of joint programs to combat offences and crimes in the field of cultural heritage protection;

Transfer of experience through the study of customs administration practices.

Stage four – Legal harmonization of the implementation of the cloud service for digital archiving of cultural heritage through the signing of an Agreement on Cooperation in Digital Archiving of Cultural Heritage between Belarus and the People’s Republic of China. For example, it is proposed to include the following provisions: objects of the agreement (digital copies of material objects of cultural heritage); forms of cooperation (joint development and operation of the cloud platform; mutual access to databases); access regime and data protection mechanisms; and other legal aspects (prohibition of commercial use of digital copies of cultural heritage).

Thus, the target areas of bilateral cooperation between Belarus and China are: 1) customs cooperation; 2) implementation of digital technologies; 3) modernization of customs infrastructure; 4) educational interaction. These goals can be achieved through the implementation of a cloud service for the digital archiving of cultural heritage.

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<sup>1</sup> Ostroga, V. A., Busel, S. Y. Current State and Prospects for the Development of the Institute of Customs Attache in the Republic of Belarus / V. A. Ostroga, S. Y. Busel // Materials of the III International Scientific and Practical Conference “Actual Problems of International Relations and Diplomacy (1918 – early 21<sup>st</sup> Century)”, May 17–18, 2018, Vitebsk State University named after P. M. Masherov (Vitebsk, Republic of Belarus). – Vitebsk, 2018. – P. 180–184.

Firstly, the development of such a tool will allow creating a unified database of cultural values for the two republics and harmonizing legislation in the field of cultural heritage protection by customs authorities.

Secondly, the cloud service provides for the use of advanced digital technologies of Belarus and China for storing and managing digital representations of cultural heritage objects.

Thirdly, the service will accelerate customs control through automatic verification of cultural relics in a unified database.

Fourthly, this format of cooperation will facilitate interaction between the customs services of the PRC and the Republic of Belarus in the field of education. For instance, the “Moodle” platform can simplify the organization of distance learning for customs officers. The development of the institute of customs attaches will allow Chinese and Belarusian specialists to share experience and develop joint programs to counter the illegal movement of cultural heritage objects.

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**«CUSTOMS REGULATION OF THE INTELLECTUAL PROPERTY  
MARKET IN THE EURASIAN ECONOMIC UNION»**

*Research Field:*

*Intellectual property as an object of international trade.*

The development of the Eurasian Economic Union (EAEU) provides for the establishment of a new economic model, transformation of business principles, digital transformation, and regulation of the intellectual property market. Legal and regulatory framework for the functioning of the intellectual property market is carried out both at the national and international levels, and one of the most important elements of state cooperation within the EAEU is the customs protection of Intellectual Property Objects (IPO).

Given that the intellectual property market is not limited to the borders of one country but is largely global in nature, the issues of customs protection of rights to IPOs are highly relevant. The need for customs protection is determined by the increasing level of technical capabilities for information transfer and the use of unfair competition methods, which leads to an increase in cases of product falsification and the sale of counterfeit products. The relevance of the study is driven by the need to address modern challenges related to the protection of IPO rights under EAEU development, as well as the importance of creating effective customs control mechanisms to support economic growth and integration processes.

Customs protection of exclusive rights allows for the creation of conditions for fruitful cooperation, provides opportunities for business development, and guarantees economic security in the EAEU market. In addition, the protection of exclusive rights by customs authorities acts as one of the types of restrictions on the circulation of counterfeit products.

The purpose of the study is to analyze the legal regulation of customs protection measures for IPO rights and identify directions for its improvement.

The EAEU Customs Code establishes the foundations of customs regulation, including the rights and duties of customs authorities to protect IPO rights. In accordance with the EAEU Customs Code, one of the main functions of customs authorities is the protection of rights to

IPOs in the customs territory of the EAEU, as well as monitoring the accuracy of determining the customs value of goods and the collection of customs payments<sup>1</sup>.

The Law of the Republic of Belarus dated January 10, 2014, No. 129-Z 'On Customs Regulation in the Republic of Belarus' details the norms concerning customs protection<sup>2</sup>.

Today, counterfeit goods pose a threat to the economic interests of the member states of the Eurasian Economic Union (EAEU). It requires no confirmation that violations of IPO rights have an extremely negative impact on the economy: right holders and manufacturers suffer because their goods cannot compete in price with illegal counterparts, and state budgets lose customs payments and taxes. Moreover, consumers of low-quality, and sometimes dangerous, goods capable of causing significant harm to the life and health of the population suffer significantly.

With international economic integration, states need to ensure a high level of protection for IPO rights during the movement of goods, which involves facing a number of problems, including:

- Harmonization of legislations, i.e., the convergence of national laws of member states aimed at establishing comparable regulatory framework in the field of intellectual property;
- Creation of a unified database providing for the maintenance of an IPO registry to simplify rights management and prevent violations;
- Simplification of registration and rights protection procedures by introducing electronic platforms for filing and processing IPO registration applications;
- Ensuring transparency and security - using modern technologies such as blockchain to protect information and ensure its authenticity;
- Cooperation between EAEU member states, exchange of information and experience for more effective combat against IPO rights violations.

Harmonization of legislation in the field of intellectual property within the EAEU is an important tool for deepening economic integration and simplifying international cooperation.

Despite the presence of general norms regulating customs protection of IPO rights, each EAEU country has its own national laws, which creates legal discrepancies and difficulties in implementing unified procedures.

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<sup>1</sup> Customs Code of the Eurasian Economic Union (as amended on 05.29.2019) (Appendix No. 1 to the Treaty on the Customs Code of the EAEU [Electronic resource] // ConsultantPlus - Access mode: [https://www.consultant.ru/document/cons\\_doc\\_LAW\\_215315/](https://www.consultant.ru/document/cons_doc_LAW_215315/) - Access date: 02.25.2026.

<sup>2</sup> On Customs Regulation in the Republic of Belarus: Law of the Republic of Belarus dated Jan 10. 2014 No. 129-Z - URL: <https://pravo.by/document/?guid=3871&p0=H11400129> (accessed 02.27.2026).

Today, the national legislations of EAEU countries demonstrate both unified provisions and discrepancies of varying degrees of significance, the harmonization of which is being raised. Harmonization does not mean that the legislation of all EAEU member states must be absolutely identical in the field of intellectual property. However, it is obvious that for a number of provisions, a convergence of approaches is possible and desirable.

Cooperation between countries in the field of legal regulation provides for the development of common approaches to protecting IPO rights, reducing barriers to the movement of goods and services, and introducing a mechanism for regional registration of trademarks.

One of the defining mechanisms for the protection of IPO rights by customs authorities is the Customs Register of Intellectual Property Objects (TROIS). The customs authorities of each EAEU member state have national customs registries of IPOs. The Customs Register of IPOs is an official list maintained by customs authorities to protect IPO rights at the border, the main tasks of which are:

- Protection of the market from counterfeit products, preventing the illegal use of intellectual property;
- Monitoring the movement of goods across the border and ensuring control over compliance with IPO rights;
- Informing right holders of IPOs about the violation of their rights.

Inclusion in the Customs Register of IPOs in Belarus is a fundamental tool of customs protection at the national level. The national customs register of IPOs includes objects of copyright and related rights, trademarks, service marks, and geographical indications. The Customs Register of IPOs allows right holders to protect their interests at the level of customs authorities.

Customs protection of IPO rights is carried out through a system that allows right holders to protect their trademarks and other intellectual property objects from counterfeit imports and violations of the exclusive rights of right holders.

It is obvious that the protection of rights is carried out only in relation to those objects that are registered in the Customs Register of IPOs.

One of the directions for improving the customs protection of IPO rights is the digital transformation of customs control, the main aspects of which within the framework of forming the EAEU digital space include:

- Automation of processes, providing for an increase in the speed of customs operations and reduction of errors associated with the human factor;
- Maintenance of electronic document management, reducing costs for business and accelerating customs procedures;

– Creation of unified platforms for data exchange between EAEU countries, ensuring transparency, consistency, and promptness of interaction between customs services and instant verification of goods;

– Introduction of electronic payment systems for possible online payment of customs duties and taxes through integrated platforms, which will speed up settlements and increase convenience for participants in foreign economic activity.

To simplify trade procedures and ensure security, customs authorities can use such advanced technologies as blockchain, the Internet of Things (IoT), Big Data, data analytics, artificial intelligence (AI), and machine learning. It should be emphasized that although these technologies are considered separately, they are not mutually exclusive and are usually used in combination with each other<sup>1</sup>.

The use of blockchain technology for customs protection of IPO rights will allow for tracking supply chains, creating a transparent and immutable record of the origin and movement of goods. Blockchain can be used for license management and control, preventing the illegal use of IPOs.

Today, the use of blockchain technology by customs authorities is at an experimental stage, and full deployment of this technology will bring benefits in the future.

Technological protection at the border does not replace legal instruments but significantly increases their effectiveness and provides for the use of digital tags, holograms, QR codes, and blockchain technology for identifying original products.

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<sup>1</sup> Analytical review in the field of intellectual property in the member states of the Eurasian Economic Union for the period from 2019 to 2023. Moscow 2024  
URL: [https://eec.eaeunion.org/upload/medialibrary/1d3/ohzkc5xk49ghd1v3ig67r1h4dz7kag1/Analiticheskiy-obzor-v-sfere-IS-v-g\\_ch-EAES\\_2019\\_2023.pdf](https://eec.eaeunion.org/upload/medialibrary/1d3/ohzkc5xk49ghd1v3ig67r1h4dz7kag1/Analiticheskiy-obzor-v-sfere-IS-v-g_ch-EAES_2019_2023.pdf) (accessed 02.28.2026).

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**«THE EVOLUTION OF CUSTOMS INSTRUMENTS REGULATING  
FOREIGN TRADE IN THE ERA OF WORLD ECONOMIC  
DEGLOBALIZATION»**

*Research Field:*

*Customs in the age of globalization and regionalization.*

Recent years have been a turning point for the global economy, as theoretical discussions regarding deglobalization and the fragmentation of the global economic system have shifted into the practical realm through the largest wave of protectionist tariffs and other customs regulation measures in history. While developed nations were previously characterized by relatively liberal tariff policies, recent years have seen a transition toward more aggressive protectionism.

The most striking example of the **use of customs tariffs as a political and economic weapon** is observed in the practices of the United States. Initial attempts to impose high import tariffs were based on the International Emergency Economic Powers Act (IEEPA) of 1977, under which the President declared the long-standing US trade deficit a national security threat and planned to impose double-digit tariffs on all imports. However, this initiative was limited by a US Supreme Court ruling, which established that the provisions of the IEEPA do not grant the President the authority to impose tariffs to address such emergencies.

As an alternative measure, the Trump administration invoked *Section 122 of the Trade Act of 1974*, which allows for the imposition of temporary surcharges of up to 15% for a period of 150 days without congressional involvement. Consequently, the US currently has a 10% rate in effect, which is set to last until July 24, 2026.

In addition to general measures, the US actively employs specialized trade legislation. For instance, tariffs based on *Section 232 of the Trade Expansion Act of 1962* are utilized to protect national security in strategic industries. Such tariffs are imposed on imports if it is determined that they threaten the country's national security. These tariffs apply to steel, aluminum, and copper (50% on finished products, 25% on derivative products), patented pharmaceuticals (up to 100%), certain types of semiconductors for artificial intelligence systems (25%), as well as Russian aluminum (200%).

In March 2026, the United States Trade Representative (USTR) initiated investigations under *Section 301 of the Trade Act of 1974* regarding 16 economies (including China, the EU, Mexico, and Japan) concerning structural overcapacity and the use of forced labor. Based on the

results of these investigations, the introduction of new tariffs in the automotive, semiconductor, and steel sectors is projected by the end of 2026.

In January 2026, US foreign trade policy took on the character of direct pressure on European partners. The imposition of 10% tariffs on eight EU countries (including Denmark, Sweden, Germany, and France), with the prospect of an increase to 25% by June 2026, was driven by a political dispute regarding the status of Greenland. As a countermeasure, the European Union has prepared a package of retaliatory measures affecting approximately €3 billion in US imports, which indicates the risk of a full-scale trade war<sup>1</sup>.

Amidst the explosive growth of cross-border e-commerce, major economies (including the United States and the European Union) are increasingly moving to **eliminate duty-free import thresholds**. As of August 29, 2025, the United States has implemented a full repeal of the \$800 duty-free threshold for international shipments (the abolition of the *de minimis* exemption). This measure is aimed at addressing structural imbalances caused by the operations of Chinese e-commerce platforms (notably Temu and Shein).

According to data from US Customs and Border Protection (CBP), the volume of parcels entering under the *de minimis* preferential regime grew from 139 million units in 2015 to 1.36 billion in 2024 (an increase of more than 600%)<sup>2</sup>. Daily incoming volume has exceeded 4 million shipments, creating conditions ripe for economic dumping, national security threats (including the expansion of smuggling channels for fentanyl precursors due to the impossibility of thoroughly inspecting small parcels), and significant fiscal revenue losses.

The European Union is following a similar trajectory of regulatory tightening. Effective from July 1, 2026, the duty exemption for goods valued up to €150 will be officially terminated. Consequently, any purchase originating from outside the EU and shipped directly to a consumer will be subject to duties, regardless of its value. As a temporary measure (effective until 2028), a fixed customs duty of €3 per item, alongside a pan-European "handling fee" of approximately €2 per item, will be introduced. Thus, the aggregate fiscal burden on low-cost goods will amount to at least €5, significantly eroding the price competitiveness of foreign online platforms. The final stage of the reform, scheduled for 2028, will involve the launch of a unified Customs Data Hub, at which point the temporary flat duties will be replaced by standard *ad valorem* percentage rates<sup>3</sup>.

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<sup>1</sup> BBC News. Greenland: Europe is ditching its softly-softly approach to Trump [Электронный ресурс]. – Режим доступа: <https://www.bbc.com/news/articles/c0lx7j1lrwro> – Дата доступа: 15.04.2026.

<sup>2</sup> CBP ready to enforce end of de minimis loophole, securing borders and strengthening trade enforcement [Электронный ресурс]. – Режим доступа: <https://www.cbp.gov/newsroom/national-media-release/cbp-ready-enforce-end-de-minimis-loophole-securing-borders-and>. – Дата доступа: 15.04.2026.

<sup>3</sup> European Commission [Электронный ресурс]. – Режим доступа: [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_25\\_3045](https://ec.europa.eu/commission/presscorner/detail/en/ip_25_3045) – Дата доступа: 15.04.2026.

In parallel with the revision of customs tariffs and duty-free thresholds, the EU has also introduced an innovative "green instrument" known as **CBAM** (the Carbon Border Adjustment Mechanism). Although the EU formally classifies it as an environmental measure, it technically functions as a "carbon tax" or an additional import duty.

The implementation of CBAM is driven by the need to mitigate the risks of "carbon leakage," a phenomenon where industrial production relocates to countries with less stringent environmental regulations. The mechanism aims to level the playing field between European producers, who are burdened by strict EU emissions legislation, and foreign suppliers. It achieves this by requiring importers of specific goods into the EU to purchase special electronic certificates, the cost of which is equivalent to the price of greenhouse gas emission allowances within the EU.

At the current stage of implementation as of 2026, the mechanism's scope is focused on the most energy-intensive and carbon-intensive sectors of the economy. These include the metallurgical industry, covering ferrous metals and aluminum, the chemical and energy industries, encompassing electricity, hydrogen, and specific categories of mineral fertilizers, as well as construction materials such as cement.

The rules of origin under the USMCA are also evolving, effectively transforming into a tool for stringent regional protectionism. The emphasis is shifting from the location of final assembly to rigorous verification of the entire value chain and the digital traceability of components, effectively preventing the use of Mexico and Canada as transit hubs for the re-export of goods from third countries, primarily China.

Indeed, we are witnessing how the era of trade governance based on the Most-Favored-Nation (MFN) principle, a cornerstone of the WTO, is yielding to a more fragmented global trade landscape. Moving away from multilateral agreements under the WTO, nations are increasingly relying on bilateral partnerships and closed regional blocs, while frequently employing trade restrictions (such as tariffs, quotas, and sanctions) justified by national security or environmental considerations. Consequently, the dynamics of global trade are gradually shifting from "free trade" and "non-discrimination" toward more differentiated forms of economic integration.

An analysis of current trade practices in the US and the EU confirms a profound transformation of the global market. Customs and tariff regulation is gradually evolving from a fiscal tool into an "economic weapon" used to restrain technological competitors and exert political pressure. The transformation of the *de minimis* regime signals the end of the era of "free" cross-border retail. Environmental standards are becoming a legitimate basis for the introduction of additional trade barriers, giving rise to instruments of "green protectionism," while the tightening of rules of origin and the departure from MFN principles are leading to the fragmentation of global

trade. In effect, the global trading system is transitioning from an era of liberal non-discrimination to a model of "selective protectionism," requiring market participants to adapt to conditions of increased volatility and stringent state regulation of cross-border flows.

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**«INSTITUTIONAL AND TECHNOLOGICAL INNOVATIONS OF THE  
CUSTOMS SYSTEM OF THE REPUBLIC OF KOREA AS A VECTOR  
FOR THE DEVELOPMENT OF CUSTOMS TECHNOLOGIES IN THE  
REPUBLIC OF BELARUS»***Research Field:*

*Innovative technologies in international trade and customs.*

The current stage in the development of the Republic of Korea's customs system is characterized by a deep digital transformation and the integration of Fourth Industrial Revolution technologies into government control processes. As one of the world leaders in information and communication technologies, the Republic of Korea views the innovative modernization of its customs infrastructure not merely as a procedure optimization tool, but as a strategic prerequisite for ensuring national competitiveness in the global digital economy.

Thus, guided by the new concept of a «Dynamically Innovative Korean Customs Service for the Rapid Development of the Nation as a Global Powerhouse», the Korean Customs Service aims to create a customs administration commensurate with Korea's status as a leading nation in the modern world. In implementing this concept, special emphasis is placed on strengthening solidarity and collective prosperity in cooperation with the international community<sup>1</sup>.

In the area of social protection, the Customs Service will strengthen joint efforts to combat drugs in high-risk countries and will conduct comprehensive searches of travelers posing this risk. In addition, there are plans to continue incorporating innovative technologies, such as artificial intelligence (AI), in fieldwork.

Furthermore, the final regime of the EU Carbon Border Adjustment Mechanism (CBAM) will come into effect in 2026, and new global trade rules have recently begun to emerge. In this context, the Korea Customs Service will support domestic enterprises in responding quickly to these changes by developing customized customs strategies, policies, supply chain maps for each commodity, carbon emission management systems, and conducting research projects. In other words, it will place a strong emphasis on actively supporting business growth in the export-import sector. Arbitrary or unnecessary rules and regulations will be amended, and mutual recognition

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<sup>1</sup> Korean Customs: [site]. – Seoul, 2006–2026. – URL: <https://www.customs.go.kr/english/main.do> (date of access: 13.03.2026).

agreements for Authorized Economic Operators (AEOs) will be concluded with key trading partners to create a favorable trade environment for businesses<sup>1</sup>.

The Korea Customs Service actively collaborates with the World Customs Organization to promote trade facilitation and security, implements official development assistance projects, and carries out various programs funded by the Cooperation Fund. This includes projects to modernize customs administration and electronic customs clearance systems in developing countries, as well as initiatives to enhance the skills of customs officers in order to promote mutual growth and the development of a global society.

Furthermore, the country aims to be a leader in establishing and disseminating international standards for customs administration, as well as in promoting international solidarity by expanding cooperation with relevant official development assistance agencies and establishing a cooperation hub for the implementation of free trade agreements.

Among the interesting achievements in the field of customs informatization in the Republic of Korea, it is worth mentioning that just recently, on 20 February 2026, the high-tech patrol robot Sullabot demonstrated its capabilities on the grounds of Changdeokgung Palace in Seoul during a test operation. The device's name is derived from the word «sullagun», which refers to the soldiers who guarded the walls of the capital during the Joseon Dynasty (1392–1910)<sup>2</sup>.

Based on the data, a key element of the Republic of Korea's Customs Service's innovation agenda is the adoption of artificial intelligence technologies, which have become the foundation for the transition to predictive customs control. The use of machine learning algorithms for the intelligent analysis of X-ray scan images and automated risk profiling based on big data has significantly increased the accuracy of detecting prohibited goods while reducing the time required for physical inspections. These AI solutions do not operate in isolation, rather, they are an integral part of and a driving force behind the development of the country's broader digital system. At the heart of this complex technological architecture, integrating intelligent services into a single mechanism, is UNI-PASS, the national electronic customs clearance system, which is rightly considered the «heart» of Korea's digital customs.

In 2025, the UNI-PASS system evolved from a simple electronic declaration platform to a full-scale high-tech hub powered by cloud computing and smart border technologies. The system's modern architecture ensures 100% paperless document flow and implements the concept of «contactless customs clearance», reducing the average release time for export goods to minutes

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<sup>1</sup> News from the Korea Customs Service : [site]. – Seoul, 2006–2026. – URL: <https://www.customs.go.kr/english/na/ntt/selectNttInfo.do?mi=8016&bbsId=1744&nttSn=10101534&nttSnUrl=fdd8c00d4c34d4c94fb596c49080099f> (date of access: 02.03.2026).

<sup>2</sup> Patrol Robot at Changdeokgung Palace : [site]. – Seoul, 2006–2026. – URL: [https://www.korea.net/NewsFocus/Korea\\_in\\_photos/view?articleId=287752](https://www.korea.net/NewsFocus/Korea_in_photos/view?articleId=287752) (date of access: 16.03.2026).

and import goods to hours. Through integration with logistics operators' blockchain platforms, the 2025 UNI-PASS system guarantees end-to-end cargo traceability in real time. The system's high efficiency and reliability are confirmed by its status as a global standard: today UNI-PASS has been successfully exported and implemented in more than 15 countries worldwide, earning the Republic of Korea the status of a leading provider of digital solutions in the field of global trade facilitation<sup>1</sup>.

In summary, it can be concluded that the innovative development of the Republic of Korea's customs system today represents the creation of a comprehensive high-tech system, where advanced AI solutions, blockchain technologies, and cloud platforms form the foundation of state control. Central to this architecture is the UNI-PASS system, whose evolution has enabled the highest possible transparency and speed of cross-border transactions, transforming Korean technological expertise into a global standard for «digital customs». Notably, large-scale process automation has not simply led to staff reductions, but has been accompanied by a qualitative increase in human resources to address more complex analytical tasks and ensure security. Thus, the innovative development vector of the Korean Customs Service successfully balances the simplification of international trade procedures with effective risk management, assigning the country's status as a leading ideologist and exporter of «Smart Customs» solutions on the global stage.

Extrapolating the Republic of Korea's high-tech experience reviewed above to the national level, it should be noted that for the Republic of Belarus, the implementation of such innovations is not simply desirable, but a strategically necessary development vector. Given Belarus's membership in the EAEU and the implementation of the «smart customs» concept, Korean practices can serve as an effective guide for modernizing our customs control system.

First, the most promising solution appears to be the implementation of artificial intelligence elements for the automatic analysis of images from inspection and screening systems (ISS). Korean experience confirms that this can dramatically reduce inspection time while minimizing human error and inspector mistakes.

Second, adapting Korean risk management algorithms based on big data is relevant for our country. This will allow Belarusian customs to focus resources on truly dangerous shipments, while providing a «green corridor» for conscientious businesses. Another perspective solution for the country is the introduction of integrated electronic platforms, similar to Korea's UNI-PASS,

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<sup>1</sup> About UNI-PASS : [site]. – Seoul, 2006–2026. – URL: <https://www.customs.go.kr/english/cm/cntnts/cntntsView.do?mi=8009&cntntsId=2700> (date of access: 02.04.2026).

for the automation of cargo clearance and inspection, which will reduce customs clearance time and minimize human error.

In conclusion, we would like to emphasize that the Republic of Korea has already created a ready-made infrastructure for sharing this knowledge through its regional centers of the World Customs Organization. Active engagement with Korean colleagues and the gradual implementation of their digital standards will enable Belarusian customs administration and control not only to enhance national security but also to significantly strengthen the country's transit potential in the context of global digitalization. Thus, the Korean experience is not simply a foreign case study, but a ready-made «roadmap» capable of accelerating the qualitative transformation of the Belarusian customs service.

In conclusion, we emphasize: adopting Korean innovations can become a powerful catalyst for the qualitative transformation of the Belarusian customs service. This will ensure the transition to an «invisible, yet maximally effective» border model, which guarantees reliable protection of national interests while simultaneously strengthening our country's transit attractiveness as an important link in the system of international transport corridors.

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**«NATIONAL SECURITY IN THE CONTEXT OF ECONOMIC  
DIGITALIZATION, LEGAL TRANSFORMATION, AND SOCIO-  
CULTURAL THREATS»**

*Research Field:  
Current issues of state border protection.*

Национальная безопасность в Республике Беларусь в XXI веке перестала быть исключительно военно-политической категорией, поскольку цифровая трансформация экономики, стремительное развитие информационных технологий и глобализация коммуникационных процессов сформировали принципиально новую среду обитания человеческой цивилизации — цифровое пространство. Это пространство одновременно выступает мощным драйвером развития национальной экономики и источником беспрецедентных угроз, требующих от белорусского государства выработки принципиально новых подходов к обеспечению безопасности. В 2025 году страны СНГ оказались самым пострадавшим регионом мира от кибератак, и Беларусь заняла в этой статистике одно из ключевых мест — почти каждая десятая атака внутри содружества пришлась именно на неё. Всего за год на страны СНГ действовали 123 киберпреступные группировки, из которых на долю России пришлось 46% атак, на втором месте оказалась Беларусь с показателем 11%, а на третьем — Казахстан с 8%. По данным Национального центра защиты персональных данных, в 2025 году в Беларуси было совершено порядка 20 тысяч киберпреступлений, что составляет около 30% от всех зарегистрированных случаев преступности. При этом наиболее уязвимыми секторами экономики стали промышленность, на которую пришлось около 40% всех атак, государственные учреждения, получившие 27% атак, и финансовые организации с показателем 20% — те сферы, где сбой может вызвать серьезные последствия от остановки производственных процессов до масштабных утечек конфиденциальных данных. Эксперты объясняют такую картину сочетанием геополитических факторов, масштабом экономики и уровнем цифровизации: чем активнее страна участвует в международных и региональных процессах, чем больше у неё промышленности и цифровых сервисов, тем привлекательнее она для злоумышленников, и Беларусь в этом смысле представляет собой удобную цель<sup>1</sup>.

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<sup>1</sup> Кибератаки в СНГ-2025: кто в лидерах? Shklovinfo.by — 2025. – Режим доступа: <https://shklovinfo.by/chelovek-i-zakon/kiberataki-v-sng-2025-kto-v-liderah/> – Дата доступа: 06.04.2026.

Финансовый сектор Беларуси оказался под особенно интенсивным давлением киберпреступников, что представляет прямую угрозу экономической безопасности государства. Национальный банк Республики Беларусь сообщил о значительном росте числа кибератак на финансовые организации: если за весь 2024 год было зафиксировано 177 нарушений безопасности защиты информации, то только за январь-октябрь 2025 года их количество уже превысило 600. Первый заместитель председателя правления Национального банка Александр Егоров на форуме «Кибербезопасность-2026» назвал основные виды нарушений, число которых существенно выросло: это сканирование портов для взлома сети, попытки эксплуатации уязвимостей и DDoS-атаки. При этом Егоров отметил, что Национальный банк ожидает в этом направлении только рост и ускорение атак в связи с развитием искусственного интеллекта, который может помочь злоумышленникам создавать более сложные и трудно обнаружимые схемы атак. Одним из самых популярных методов злоумышленников в 2025 году стала рассылка вредоносного программного обеспечения. Основные мошеннические схемы в белорусском пространстве включают псевдоинвестирование, фальшивое декларирование, оплату несуществующих товаров и услуг, причем схемы мошенников постоянно усложняются, становясь многоступенчатыми<sup>1</sup>. По данным «Лаборатории Касперского», в 2025 году локальные киберугрозы затронули каждого третьего пользователя в Беларуси, каждый двадцатый подвергся атаке через мобильное устройство, а почти 13% частных лиц и 7% корпоративных клиентов становились жертвами фишинговых сайтов. Общая сумма средств, похищенных кибермошенниками у белорусских граждан, достигла примерно 47 миллионов рублей, а количество зафиксированных инцидентов превысило 16 тысяч. При этом сохранить удалось лишь около 8% от общей похищенной суммы, что свидетельствует о высокой эффективности криминальных схем и необходимости повышения финансовой грамотности населения. Первый заместитель председателя правления Национального банка Александр Егоров подчеркнул, что без повышения финансовой образованности и бдительности самих граждан, без активной работы банков по информированию клиентов о рисках, существенного роста объёмов спасённых средств ожидать не приходится. Как было отмечено, для такого рода махинаций злоумышленникам не требуется сложное программное обеспечение — люди сами отдают им деньги<sup>2</sup>.

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<sup>1</sup> Хакеры атакуют всё чаще. Кр.by — 2025. – Режим доступа: <https://www.belarus.kp.ru/online/news/6681864/> – Дата доступа: 06.04.2026.

<sup>2</sup> Сycleta кибермошенники выкрали у Беларуси около 47 миллионов рублей. Zviazda.by — 2025. – Режим доступа: <https://zviazda.by/news/sycleta-kibermakhlyary-vykrali-belarusa-kalya-47-milyena-rublye/> – Дата доступа: 06.04.2026.

Киберпреступность в Беларуси демонстрирует не только количественный рост, но и качественную трансформацию, что подтверждается данными международных аналитических отчетов. Согласно ежегодному аналитическому отчету F6 «Киберугрозы в России и Беларуси. Аналитика и прогнозы 2025/26», в 2025 году количество атак программ-вымогателей выросло на 15% по сравнению с предыдущим годом, причём аналитики Threat Intelligence компании F6 зафиксировали 250 новых случаев публичных утечек баз данных компаний СНГ, из которых 230 относятся к российским организациям. Суммарный объем утечек за 2025 год превысил 767 миллионов строк с данными пользователей, что значительно выше показателя 2024 года в 457 миллионов строк. Особую тревогу вызывает тот факт, что многие базы данных выкладывались в открытый доступ бесплатно — с целью нанести максимальный ущерб компаниям и их клиентам, при этом наибольшую ценность для злоумышленников представляют наборы с электронными адресами, номерами телефонов и паролями, которые затем используются в мошеннических схемах и каскадных атаках на крупные организации. В отчете также отмечается сближение подходов кибервымогателей и прогосударственных АРТ-групп: они заимствуют тактики друг у друга, а политически мотивированные команды все чаще используют шифрование данных с требованием выкупа. В 2025 году F6 фиксировала действия 27 АРТ-групп, атакующих Россию и страны СНГ (для сравнения: 24 группы в 2024 году), из этих 27 групп 24 атаковали российские компании, а 8 — организации в Беларуси. Впервые были публично раскрыты семь новых АРТ-групп, часть из которых начала атаки ранее, но выявить их удалось только в 2025 году<sup>1</sup>.

В ответ на масштабные вызовы, связанные с ростом киберпреступности и необходимостью защиты национальных интересов в цифровой сфере, белорусское государство сформировало комплексную систему правовых, организационных и технологических мер, направленных на обеспечение информационной и экономической безопасности. В Беларуси действует три основных нормативных документа, которые позволяют противостоять современным киберпреступникам. Первый из них — указ Президента от 29 августа 2023 года № 269 «О мерах по противодействию несанкционированным платежным операциям», в рамках которого в режиме 24/7 обеспечено взаимодействие с Национальным банком и поставщиками платежных услуг по обмену информацией о всех платежных операциях, вызывающих сомнения в своей законности. Более того, Министерство внутренних дел получило право приостанавливать

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<sup>1</sup> F6 опубликовала ежегодный аналитический отчет о киберпреступлениях в России и Беларуси. Itsec.ru — 2025. – Режим доступа: <https://www.itsec.ru/news/f6-opublikovala-ezhegodniy-analiticheskiy-otchiot-o-kiberprestupleniyah-v-rossii-i-belorusii> – Дата доступа: 06.04.2026.

расходные операции по счетам, по которым прошли так называемые фродовые средства. Только за прошлый год было подготовлено более 6,5 тысяч решений, на основании реализации которых было приостановлено более 3 тысяч переводов, тем самым удалось сохранить около 5 миллионов белорусских рублей, похищенных у граждан. Вторым важнейшим документом стал указ Президента от 17 сентября 2024 года № 367 «Об обращении цифровых знаков (токенов)», направленный на обеспечение максимальной прозрачности действий, связанных с криптовалютой, поскольку мошенники активно используют криптовалюты для вывода похищенных средств. Третьим инструментом стало постановление Совета Министров от 2 сентября 2025 года № 476 «О порядке применения мер ограничительного характера», которое позволяет правоохранным органам моментально получать информацию из любой точки Беларуси о том, что человек обратился в органы внутренних дел с заявлением о совершённом в отношении него преступлении с использованием фишингового ресурса, после чего в течение суток производится упрощенная процедура блокировки данного ресурса. Помимо технических мер, как подчеркнул Алексей Новаш, важнейшим направлением остаётся повышение цифровой грамотности населения, поскольку именно человеческий фактор часто становится решающим в успехе мошеннических схем<sup>1</sup>. Следственный комитет, в свою очередь, активно борется с одним из самых опасных видов кибермошенничества — так называемым «псевдоинвестированием», когда создаются фейковые колл-центры, сотрудники которых под видом брокеров убеждают граждан вкладывать деньги в деятельность несуществующих организаций. В 2025 году было открыто 2 уголовных дела в отношении участников мошеннических колл-центров, занимавшихся хищением денежных средств граждан под предлогом инвестирования<sup>2</sup>.

Важным шагом в развитии правовой базы кибербезопасности стало принятие Закона Республики Беларусь от 7 мая 2021 года № 99-З «О защите персональных данных», который вступил в силу 15 ноября 2021 года и направил усилия государства на обеспечение защиты персональных данных, прав и свобод физических лиц при обработке их персональных данных. Директор Национального центра защиты персональных данных Андрей Гаев на форуме, посвящённом Международному дню защиты персональных данных, отметил, что

<sup>1</sup> Какие инструменты используют правоохранители для борьбы с киберпреступностью рассказали в МВД. Belta.by — 2026. – Режим доступа: <https://belta.by/special/society/view/kakie-instrumenty-ispolzujut-pravoohraniteli-dlja-borby-s-kiberprestupnostju-rasskazali-v-mvd-766202-2026/> – Дата доступа: 06.04.2026.

<sup>2</sup> Цифровой щит страны: как Беларусь будет защищаться. Vg-gazeta.by — 2026. – Режим доступа: <https://vg-gazeta.by/2026/02/25/%D1%86%D0%B8%D1%84%D1%80%D0%BE%D0%B2%D0%BE%D0%B9-%D1%89%D0%B8%D1%82-%D1%81%D1%82%D1%80%D0%B0%D0%BD%D1%8B-%D0%BA%D0%B0%D0%BA-%D0%B1%D0%B5%D0%BB%D0%B0%D1%80%D1%83%D1%81%D1%8C-%D0%B1%D1%83%D0%B4%D0%B5/amp/> – Дата доступа: 06.04.2026.

за пять лет работы удалось существенно снизить количество утечек личной информации и повысить правовую культуру граждан. Закон о защите персональных данных обеспечивает баланс между использованием сведений для экономики и сохранением личной информации граждан. За это время более 15 тысяч специалистов прошли обучение в сфере защиты персональных данных, 43,7 миллиона записей были удалены по требованию Национального центра, а количество утечек сокращается благодаря комплексной работе государства и бизнеса. Также было проверено 186 операторов и рассмотрено 638 нормативно-правовых актов<sup>1</sup>. По итогам парламентских слушаний на тему «Развитие цифрового права в Республике Беларусь», состоявшихся в ноябре 2024 года в Палате представителей Национального собрания, участники пришли к выводу, что в стране в целом созданы законодательные условия для цифровизации, обеспечения кибербезопасности, защиты информации и персональных данных, формирования цифровой инфраструктуры, внедрения новых информационных технологий. Формат мероприятия позволил выработать направления совершенствования законодательства в цифровой сфере и закрепить их в целевом документе, направленном для работы заинтересованным органам и организациям. Национальному центру защиты персональных данных рекомендовано определить предложения по защите персональных данных при использовании технологий больших данных и искусственного интеллекта, а также оценить необходимость закрепления специального законодательного регулирования видеонаблюдения<sup>2</sup>.

Особое значение в контексте национальной безопасности приобретает вопрос цифрового суверенитета, который сегодня определяется как базис устойчивого развития страны. Внезапный уход с белорусского рынка западных вендоров программного обеспечения существенно усложнил многие процессы жизнедеятельности государства, что сделало вопрос создания импорт независимой экосистемы программного обеспечения стратегическим. В этой связи Правительством утверждена Государственная программа «Цифровая Беларусь» на 2026-2030 годы, разработанная в целях формирования отечественной экосистемы цифровых решений для населения, бизнеса и государства, основанных на современной системе и инфраструктуре управления данными. Программа включает такие ключевые подпрограммы, как «Экономика данных», «Цифровое государство» и «Цифровой суверенитет». Будут решены задачи по предоставлению услуг

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<sup>1</sup> От киберугроз до цифрового суверенитета: в Минске обсудили тему защиты персональных данных. Срд.by — 2026. – Режим доступа: [https://cpd.by/ot-kiberugroz-do-cifrovogo-suvereniteta-v-minske-obsudili-temu-zashhity-personalnyh-dannyh/#pll\\_switcher](https://cpd.by/ot-kiberugroz-do-cifrovogo-suvereniteta-v-minske-obsudili-temu-zashhity-personalnyh-dannyh/#pll_switcher) – Дата доступа: 06.04.2026.

<sup>2</sup> Будущее цифрового права в Беларуси: подготовлены рекомендации по итогам парламентских слушаний. Срд.by — 2026. – Режим доступа: [https://cpd.by/budushhee-cifrovogo-prava-v-belarusi-podgotovleny-rekomendacii-po-itogam-parlamentskih-slushanij/#pll\\_switcher](https://cpd.by/budushhee-cifrovogo-prava-v-belarusi-podgotovleny-rekomendacii-po-itogam-parlamentskih-slushanij/#pll_switcher) – Дата доступа: 06.04.2026.

связи, отвечающих требованиям новых экономических форматов, повышению качества данных государственных информационных ресурсов, внедрению прикладных цифровых решений с применением искусственного интеллекта, а также формированию импорт независимой экосистемы программного обеспечения. Государственная программа включает 21 мероприятие, на реализацию которых планируется направить 1,08 миллиарда белорусских рублей. Постановлением Совета Министров Республики Беларусь от 31 декабря 2024 года № 1074 утверждена концепция обеспечения суверенитета в цифровом развитии до 2030 года, которая отражает сущность и содержание проблемы обеспечения суверенитета Беларуси в цифровом развитии, а также видение цифрового развития страны в контексте стремительной динамики цифровых трансформаций в мире, появления новых рисков, вызовов и угроз цифровому развитию государства. Концепция определяет основные компоненты суверенитета Беларуси в области цифрового развития с учётом национальных интересов, направления и меры по обеспечению суверенитета, а также место страны в международном информационном пространстве. Согласно документу, суверенитет в области цифрового развития понимается как неотъемлемое право государства управлять государственной информационно-коммуникационной инфраструктурой и информационными ресурсами, осуществлять контроль над ними, защищать свои интересы и проводить независимую внешнюю и внутреннюю государственную политику в области цифрового развития. В ближайшей перспективе в стране предусмотрен переход от модели электронного правительства к цифровому государству, в связи с чем сфере информационных технологий предстоит активная адаптация к потребностям внутреннего рынка<sup>1</sup>.

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<sup>1</sup> Новые подходы к информационной безопасности. Xn----ctbjblqxdiff1ap0a4fi.xn--90ais — 2026. – Режим доступа: <https://xn----ctbjblqxdiff1ap0a4fi.xn--90ais/en/materials/news/1217> – Дата доступа: 06.04.2026.

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**«RETROSPECTIVE ANALYSIS OF THE UNIFORM OF CUSTOMS  
OFFICIALS OF THE GRAND DUCHY OF LITHUANIA IN THE 18TH  
CENTURY IN DOCUMENTS REGULATING THEIR ACTIVITIES»**

*Research Field:*

*History of customs affairs and modernity — lessons from the past for the present and the future.*

Форменная одежда всегда играла важную роль в государстве, демонстрируя статус служащих в различных ведомствах. Одним из важных институтов, в котором служащие носят специальную одежду, является таможня, контролирующая перемещение товаров через таможенную границу и выполняющая множество других функций, связанных с упорядочением торговли и защитой экономических интересов государства. Одним из наиболее интересных и малоизученных аспектов является форменная одежда таможенных официалистов ВКЛ периода реформ конца XVIII века. В Республике Беларусь научные исследования на данную тематику посвятили такие люди, как И. Ф. Китурко и В. Ю. Саяпин.

Изучение данного вопроса представляет особую актуальность и послужило целью данной работы, поскольку внешний вид и стиль одежды были неотрывной частью внешнего образа и отражали социальный статус и положение человека в организационной структуре государственной таможенной системы. Помимо этого, изучение форменной одежды таможенных официалистов тесно переплетается с празднованием 35-летия Таможенной службы Республики Беларусь. Понимание того, как развивались символы государственной службы, статус и внешний облик таможенников в прошлом, позволяет глубже осознать преемственность традиций и нынешнюю роль ведомств, способствуя укреплению престижа службы и гордости за её многовековую историю.

Кроме того, можно согласиться с суждением В. А. Острога, что «исследования истории форменной одежды таможенного ведомства имеют перманентную актуальность и важность, так как форменная одежда продолжает свое развитие, она совершенствуется и при этом должна иметь связь с историческими традициями, что повышает престиж службы как среди самих таможенников, так и окружающих»<sup>1</sup>. Ретроспективный анализ, в свою очередь, позволяет более глубоко понять исторический контекст и особенности форменной

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<sup>1</sup> Острога, В. А. Форменная одежда должностных лиц таможенных органов Республики Беларусь. История и современность / В. А. Острога // Труды БГТУ. Сер. 6. История, Философия. – 2019. – № 1. – С.75–79.

одежды таможенных официалистов, а также политическую ситуацию в ВКЛ, отражение которой нашло отпечаток в визуальных аспектах форменной одежды должностных лиц таможенной системы.

Мытники ВКЛ до середины XVIII века специальной форменной одежды или отличительных знаков не имели<sup>1</sup>. Это было связано с распространенностью продолжительное время откупной системы, при которой владелец мытной каморы не хотел тратиться на особую одежду своих слуг. Хотя известно, что на подскарбии земском с XVII в. лежала обязанность заботиться о «барве» (военной униформе). Единственными, кто имел подобие мундира, были господские дворяне, которые носили шляхетскую одежду согласно цветам воеводств и поветов – кунтуши (верхние кафтаны): Брестского воеводства — голубой, Виленского – зеленый, Гродненского – красный, Минского — алый, Мстиславского — фиолетовый, Полоцкого - красный и т.д.), атласные жупаны (рубашки) и 4-х угольные шапки «рогатувки», а также были вооружены саблей-корабелой. Но наряд каждого господского дворянина не являлся отражением профессиональной деятельности, определяя только сословную принадлежность. Согласно «Таможенному уставу», утвержденному Экономическим советом Скарба 11 января 1768 г., таможенным официалистам стали выдавать специальные головные уборы и мундиры, а также саблю с геральдической эмблемой таможенной службы ВКЛ — государственный герб «Погоня» на фоне двух скрещенных ключей. Это были первые таможенная униформа и геральдика на белорусских землях.

Первая подробная комплексная инструкция для всех категорий таможенных служащих была разработана и издана Скарбовой комиссией ВКЛ 11 февраля 1767 года<sup>2</sup>. Эта инструкция устанавливала четкую субординацию таможенников: «стражники подчиняются писарям, писари — суперинтендантам, суперинтенданты — контррегистраторам». Также в соответствии с этим документом впервые должности служащих таможни (официалистов) приравнивались к воинским званиям и соответственно им полагались и форменные мундиры единой красно-зеленой расцветки. Таким образом, контррегистранты получали «чины и звания» ротмистров, суперинтенданты — поручиков, писари — товарищей, стражники — почетов, и, как подчеркивалось в инструкции, должны были поддерживать соответствующее «воинское подчинение».

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<sup>1</sup> Острога, В. А. История таможенного дела и таможенной политики Беларуси : учеб. пособие / В. А. Острога. – Минск : БГУ, 2019. – 243 с.

<sup>2</sup> Дзяржаўная мытная служба Вялікага Княства Літоўскага ў другой палове XVIII стагоддзя (1764-1795 гады) : манагр. / І. Ф. Кітурка ; Гродзен. дзярж. ун-т імя Янкі Купалы, Ін-т гіст. Нац. акад. навук Беларусі. – Гродна : ГрДУ, 2023. – 359 с.

Наряду с воинскими званиями впервые в истории таможенной службы ВКЛ предусматривалось введение обмундирования. В. Ю. Саяпин указывал: «Ротмистры и поручики носили жупан пунцовый, рубашки зеленые с отворотами. Аксельбанты должны были быть у ротмистров — 2, у поручиков — 1, фельдцехи — должны были быть серебряными. Такие же мундиры носили и писари, только без аксельбантов и фельдцехов. Стражники носили аналогичные цвета: красный жупан и юбку, а катанку парадную — зеленого цвета»<sup>1</sup>. В последующем на основе исследований архивных материалов И. Ф. Китурко в своей монографии «Государственная таможенная служба Великого Княжества Литовского во второй половине XVIII века (1764-1795 года)» обстоятельно и детально изучила форменную одежду таможенных официалистов, ее вид и регламент ношения. Благодаря проведенной работе И. Ф. Китурко смогла впервые представить форменную одежду данного периода в цветном формате.

В. Ю. Саяпин утверждал: «В инструкции не указан источник финансирования пошива форменного обмундирования. Скорее всего, это был личный долг каждого высокопоставленного таможенника. В инструкции особенно подчеркивалось, что контррегистраторы, суперинтенданты и писари в таких мундирах «согласно званию и рангу» должны явиться в Гродно, чтобы представиться Скарбовой комиссии».

Стражникам за службу за счет скарба (государственной казны) платили 12 польск. зл. в месяц, а также выдавали красный жупан, шапку на 2 года и на 4 года зеленую катанку, как у почетов, и такая одежда была их повседневной формой. По косвенным данным можно предположить, что стражники имели сабли, так как в инструкции был расчет казначейских расходов на обеспечение формой 100 стражников, в том числе предусматривалось выделение 100 сабель по 10 злотых.

Мундир суперинтенданта (начальника таможи) Великого Княжества Литовского состоял из шапки традиционного шляхетского кроя с зеленым верхом и красным околышем, красного жупана, зеленого кунтуша с красными лацканами и золотистыми погонами-эполетами. На правом рукаве кунтуша суперинтендант носил золотистый аксельбант. Кунтуш опоясывался персональной реликвией любого шляхтича — длинным и широким тканым шелковым «слуцким» поясом. А на ремне справа крепилась его гордость сабля-карабела. Следует отметить, что сочетание красно-зеленых цветов изучаемой форменной одежды напоминает флаг Республики Беларусь в современное время, что может указывать на символическую связь через века.

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<sup>1</sup> Саяпин, В. Ю. Таможенная служба. В двух книгах. Кн. 1. Мыто и мытники / В. Ю. Саяпин. — Гродно : Гродн. тип., 2005. — 400 с.

Таким образом, проведенный анализ позволил выявить, что форменная одежда таможенных официалистов ВКЛ в XVIII веке была отличительным элементом их статуса и власти и играла важную роль в создании профессионального образа. Нужно отметить, что исследования упомянутых ученых стали фундаментом в реконструкции форменной одежды, которую можно использовать в учебных и воспитательных целях при обучении специальности «таможенное дело», в специализированных таможенных классах гимназий и школ. Примером данной прикладной реконструированной работы может служить разработанные студентами Белорусского государственного университета, факультета международных отношений, специальности «Таможенное дело» элементы мундира суперинтенданта образца 1767 года мытной каморы ВКЛ. Практические результаты исследования могут быть использованы на исторических выставках как часть реконструкции аутентичного облика таможенной службы того времени. Кроме того, музеи могут использовать реконструированную форменную одежду в своих экспозициях, чтобы визуально показать развитие и историю таможенной службы в данном периоде. Также полученные результаты отразятся на более глубоком понимании исследуемого периода и помогут сохранить культурное наследие данной эпохи.

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### **«PROSPECTS FOR THE DEVELOPMENT OF COMPUTER VISION TECHNOLOGIES IN THE CUSTOMS AFFAIRS OF THE REPUBLIC OF BELARUS»**

Research Field:

Innovative technologies in customs administration and digitalization.

Интенсификация процессов цифровизации обуславливает внедрение инновационных технологий в деятельность государственных органов, способствуя решению задач в рамках их компетенции. Таможенные органы, в частности, активно интегрируют новые инструменты, направленные на повышение эффективности работы должностных лиц, противодействие контрабанде и иным правонарушениям. Одной из таких технологий является компьютерное зрение, которое уже заняло место в арсенале таможенных служб многих стран, включая Республику Беларусь.

В перечень инструментов таможенных органов Республики Беларусь, основанных на компьютерном зрении и применяемых в таможенном контроле, входит инспекционно-досмотровый комплекс (ИДК). ИДК представляет собой передвижную установку, осуществляющую рентгеновское сканирование транспортных средств, вызывающих подозрение у сотрудников таможни. В целях безопасности водитель и пассажиры обязаны покинуть транспортное средство на время сканирования. Результатом досмотра является выведение на экран компьютера изображения содержимого автомобиля. Средняя продолжительность сканирования одного транспортного средства с помощью ИДК составляет около 10 минут, в то время как физический досмотр может занимать от 3 до 8 часов в зависимости от характера груза. Эффективность ИДК подтверждается регулярным пресечением попыток контрабанды<sup>1</sup>. Ярким примером является инцидент 7 апреля 2025 года, когда на белорусско-польской границе был задержан гражданин, пытавшийся провезти 580 кг мощного взрывчатого вещества. Транспортное средство было просканировано с помощью ИДК, на сканограмме были выявлены аномалии, что послужило основанием для углубленного досмотра, в ходе которого и было обнаружено взрывчатое вещество<sup>2</sup>.

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<sup>1</sup> Техника делает тайное явным // Государственный таможенный комитет Республики Беларусь. URL: [https://www.gtk.gov.by/news/tehnika-delaet-tajnoe-javnyum-6166-2018/?sphrase\\_id=330082](https://www.gtk.gov.by/news/tehnika-delaet-tajnoe-javnyum-6166-2018/?sphrase_id=330082) (дата обращения: 07.10.2025).

<sup>2</sup> Белорусской таможенной службой пресечен ввоз на территорию ЕАЭС крупнейшей в истории Беларуси партии взрывчатки // Государственный таможенный комитет Республики Беларусь. URL:

Помимо ИДК, в арсенале белорусских таможенников используются различные виды камер видеонаблюдения, в том числе нагрудные и наружные. Нагрудные видеокамеры относятся к средствам дознания и применяются для фиксации следов правонарушений в процессе неотложных следственных действий. Наружные видеокамеры являются средством визуального наблюдения и используются для мониторинга оперативной обстановки в зонах таможенного контроля<sup>1</sup>.

Непосредственно термин «компьютерное зрение» в законодательстве Республики Беларусь не закреплен. Однако отдельные аспекты, связанные с использованием решений на его основе, подверглись правовому регулированию. Вопросы применения технических средств таможенного контроля (ТСТК) регламентированы Таможенным кодексом Евразийского экономического союза (ТК ЕАЭС) и Законом Республики Беларусь «О таможенном регулировании». Согласно п. 2 ст. 342 ТК ЕАЭС, ТСТК должны быть безопасны для жизни и здоровья людей, а также не причинять вред товарам и транспортным средствам. Перечень разрешенных ТСТК утвержден Постановлением Государственного таможенного комитета Республики Беларусь от 3 мая 2018 г. № 11.

Важным аспектом является работа с информацией. Правовой режим информации, её защиты и использования установлен Законом Республики Беларусь «Об информации, информатизации и защите информации». Кроме того, эксплуатация систем видеонаблюдения регулируется Постановлением Совета Министров Республики Беларусь от 11 декабря 2012 года № 1135.

Таким образом, несмотря на отсутствие единого правового акта, непосредственно регулирующего технологию компьютерного зрения, смежные вопросы нашли отражение в действующем законодательстве.

Развитие цифровой экономики в Республике Беларусь, предусмотренное рядом государственных программ и концепций, создает предпосылки для расширения перечня ТСТК на основе компьютерного зрения. Перспективным представляется заимствование зарубежного опыта, такого как использование систем сканирования человека (Китай, США) или беспилотных летательных аппаратов (ОАЭ). Развитие искусственного интеллекта открывает путь для совершенствования сканеров и создания аналогов таких

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<https://www.gtk.gov.by/news/beloruskoy-tamozhennoy-sluzhboy-presechen-vvoz-na-territoriyu-eaes-krupneyshey-v-istorii-belarusi-p/> (дата обращения: 07.10.2025).

<sup>1</sup> Рафалович, А.В. Технические средства таможенного контроля / А.В. Рафалович. – Минск: БНТУ, 2021. – URL: [https://rep.bntu.by/bitstream/handle/data/44860/Tekhnicheskie\\_sredstva\\_tamozhennogo\\_kontrolya.pdf?sequence=1&isAllowed=y](https://rep.bntu.by/bitstream/handle/data/44860/Tekhnicheskie_sredstva_tamozhennogo_kontrolya.pdf?sequence=1&isAllowed=y) (дата обращения: 07.10.2025).

систем, как ICI в КНР<sup>1</sup>. Важную роль в этом процессе играют международные семинары, проводимые Всемирной таможенной организации, которые способствуют непрерывному повышению квалификации таможенников.

Одним из потенциальных направлений является применение генеративного искусственного интеллекта в товароведении для предварительного определения товарных кодов ТН ВЭД. Чат-боты на основе генеративного ИИ — это языковые модели, способные генерировать человекоподобные ответы, создавать изображения по описанию и решать иные задачи. Их ключевой особенностью является способность к обучению благодаря использованию методов обработки естественного языка (Natural Language Processing) и глубокого обучения (Deep Learning)<sup>2</sup>.

В настоящее время подобная практика в таможенных органах отсутствует. Для оценки потенциала технологии был проведён эксперимент с использованием чат-бота Copilot.

Эксперимент 1. При загрузке изображения, на котором изображён кодеин, Copilot даёт следующий ответ: «Судя по изображению, это бутылка Codeine Linctus В.Р., содержащая 200 мл лекарства с активным ингредиентом кодеина фосфата (15 мг на 5 мл). Для классификации в рамках ТН ВЭД данный товар, вероятно, относится к группе 3004, которая охватывает медикаменты, состоящие из смешанных или несмешанных продуктов, предназначенных для терапевтического или профилактического применения. Однако точная классификация может зависеть от дополнительных факторов, таких как форма выпуска, упаковка и назначение. Рекомендую проконсультироваться с таможенным специалистом для уточнения. Если у вас есть дополнительные вопросы, дайте знать!». В данном случае, чат-бот верно определил товар по изображению, однако предоставил неверный код, не указав дополнительные требования. Товарный код для кодеина будет 2939 11 000 0<sup>3</sup>.

Эксперимент 2. При загрузке изображения, на котором изображён автомобиль Peugeot 508, добавив уточнение, что транспортное средство оснащено дизельным двигателем объёмом 1.6 л, Copilot даёт следующий ответ: «Автомобиль Peugeot 508 с дизельным двигателем объемом 1.6 литра обычно классифицируется в товарной

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<sup>1</sup> Application of Artificial Intelligence Technology in the Supervision of Customs Clearance Machine Inspection // World Customs Journal. URL: <https://www.worldcustomsjournal.org/article/122754-application-of-artificial-intelligence-technology-in-the-supervision-of-customs-clearance-machine-inspection> (дата обращения: 07.10.2025).

<sup>2</sup> Deep learning // Wikipedia. URL: [https://en.wikipedia.org/wiki/Deep\\_learning](https://en.wikipedia.org/wiki/Deep_learning) (дата обращения: 07.10.2025).

<sup>3</sup> Товарная номенклатура внешнеэкономической деятельности Евразийского экономического союза (ТН ВЭД ЕАЭС) // ALTA. URL: <https://www.altar.ru/tnved/> (дата обращения: 07.10.2025).

номенклатуре внешнеэкономической деятельности (ТН ВЭД) под кодом группы 8703. Эта группа охватывает легковые автомобили и другие моторные транспортные средства, предназначенные для перевозки людей. Однако точный код может зависеть от дополнительных характеристик, таких как год выпуска, тип трансмиссии и экологический класс». В данном случае, чат-бот верно определил товар и отнёс его к правильной товарной позиции, однако из-за недостатка дополнительных характеристик не определил его товарный код. В зависимости от года выпуска и состояния для дизельного автомобиля товарными кодами будут 8703 32 199 0 или 8703 32 909 4, или 8703 32 909 3.

Таким образом, чат-боты на основе генеративного искусственного интеллекта способны распознавать товары, но не могут определить верный или полный товарный код, в некоторых случаях требуя уточнения.

Важно обратить внимание, что регулирование чат-ботов на основе генеративного ИИ в Беларуси фрагментировано. Косвенно оно затрагивается через законодательство о защите персональных данных. Определение искусственного интеллекта приведено в подзаконном акте<sup>1</sup>, что указывает на начало формирования правового поля для подобных технологий.

В таможенном деле Республики Беларусь технология компьютерного зрения находит практическое применение в виде таких ТСТК, как ИДК и системы видеонаблюдения. Существует значительный потенциал для внедрения новых решений и совершенствования существующих, чему способствует курс на цифровизацию и международный опыт. Вопросы применения технологии фрагментарно, но отражены в национальном законодательстве.

Эксперимент показал, что чат-боты на основе генеративного ИИ способны распознавать товары, но на текущем этапе не готовы к точной и самостоятельной классификации по ТН ВЭД, требуя дальнейшей доработки и взаимодействия с экспертом-человеком. Для успешной интеграции подобных решений необходимы как технологическое развитие, так и формирование целостной нормативной базы, регулирующей использование искусственного интеллекта в таможенной сфере.

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<sup>1</sup> О мерах по реализации Указа Президента Республики Беларусь от 7 апреля 2022 г. № 136: постановление Совета Министров Респ. Беларусь от 21 апр. 2023 г. № 280 // Национальный правовой Интернет-портал Республики Беларусь. URL: <https://pravo.by/document/?guid=12551&p0=C22300280> (дата обращения: 07.10.2025).