

The role of information technologies in the development of customs control in the Republic of Bulgaria

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Abstract

Advances in information technologies (IT) in recent years have contributed significantly to the automation and development of customs control. This article examines the European Union (EU)-wide customs information systems (CIS) that operate within the pan-European CIS network and their application in the Republic of Bulgaria, with a focus on customs control efficiency. Guidelines for applying IT in customs control in the member states of the EU are outlined, and the CIS established to automate customs procedures in the Republic of Bulgaria, introduced in the context of the Union Customs Code (UCC), are discussed, including their main benefits and some of the problems accompanying their use, together with possible guidelines for their improvement.

1. Introduction

In recent years, the use of modern equipment, software and new information technologies has underpinned economic activities. International trade and its accompanying activities are no exception, as a result of which customs control bodies embark on automating most of their processes. This trend gives rise to the emergence of a new type of communication between the parties involved in the international commodity exchange. This concept has also been reflected in the new Union Customs Code (UCC), in which information technology has been considered as the main instrument for the implementation of customs control. Its use has become mandatory for all member states, with the idea to establish united pan-European customs, on the basis of information technology, by 2020. The use of information technologies results in largely discontinuing the direct contact between the different bodies, saving time and resources and limiting the opportunities for errors and omissions. At the same time, it should be borne in mind that the successful development and implementation of specialised information systems in the field of customs control is a slow and cumbersome process. The advantages and disadvantages of its development can be viewed as part of the criteria by which the efficiency of customs administrations should be assessed.

This article examines the EU-wide customs information systems (CIS) that operate within the pan-European CIS network and their application in the Republic of Bulgaria, with a focus on customs control efficiency. The purpose of the study is to characterise the CIS established in the Republic of Bulgaria, which was introduced in the context of the UCC to automate customs procedures, and outline the main benefits of their implementation, some of the problems accompanying their use and the possible guidelines for their improvement. In doing so, this paper:

- outlines the guidelines for applying information technologies in customs control in the member states of the EU
- presents the CIS developed and implemented in the Republic of Bulgaria

- analyses functional specifications of the main CIS in the Republic of Bulgaria
- outlines the advantages and disadvantages of using the CIS, and provides guidelines for further development.

2. Guidelines for applying information technologies in customs control

The rapid penetration of information technologies (IT) into business has had a significant impact on the ways in which economic activities are carried out and the ways in which the procedures developed for organisational management are followed. Economic operators work in a dynamic global environment and their internal business processes are becoming more critically dependent on the timely provision and accurate processing of specific information flows. Modern channels of communication and highly developed IT have accelerated the flows and consumption of goods (Wolfgang & Harden, 2016, p. 2). Parallel to these processes, IT achievements in recent years have contributed significantly to the development of customs control towards its automation. This has necessitated the creation of a new type of communication between the separate customs administrations of the EU member states, and between the economic operators and customs offices. These relationships have largely discarded the use of paper flows and entered a new and modern electronic environment. In practice, this means that economic operators and their representatives can process and submit most customs, trade and transport documents used in international trade, electronically.

The European Commission is working more actively to implement IT in the field of customs control. The European Parliament and Council decision of 2008 to create a pan-European electronic customs system that provides an efficient paperless environment for customs and trade—a CIS—is the response to this challenge. This system aims to build a robust communication chain between all customs offices in the Union, between customs and other public authorities operating at the border, and between public authorities and traders (Decision No 70/2008/EC of the European Parliament and of the Council of 15 January 2008 on a paperless environment for customs and trade, 2008). The practical realisation of this decision is the new UCC (Regulation (EU) No 952/2013 of the European Parliament and of the Council of 9 October 2013 laying down the Union Customs Code, 2013) adopted in October 2013, which largely focuses on the use of modern information systems.

Satisfying the needs of modern logistics, the pan-European electronic customs should lead to an increase in the competitiveness of economic operators acting in the EU member states, to a reduction in the costs of compliance with the legal requirements, and to an increase in security at the borders of the Union. To this end, a stage-by-stage implementation of a number of new systems in the member states is envisaged by 31 December 2020. Under the provisions of Article 280 of the UCC, the European Commission has signed a work program for the development and deployment of electronic systems (Commission Implementing Decision (EU) 2016/578 of 11 April 2016 establishing the Work Programme relating to the development and deployment of the electronic systems provided for in the Union Customs Code, 2016). It establishes the transitional measures for electronic systems and the deadlines for their introduction. Essentially, these systems cover the opportunities of implementing the customs procedures for the import, export and transit of goods. Risk analysis, remote control and auditing of accounting and trade documentation will have priority within the envisaged new CIS.

In line with the EU policy, computerisation is one of the strategic objectives of the Customs Administration of the Republic of Bulgaria. This process is an important prerequisite for achieving the necessary administrative capacity for the implementation of national and pan-European customs legislation.

The early computerisation of customs control in the Republic of Bulgaria began in 1995 and today the National Customs Agency is one of the leading Bulgarian control institutions, offering its clients a number of online services. Today, a significant part of the customs procedures is electronic and realising them via paper documents is considered an emergency procedure. In practice, IT has found its important place in organising and implementing customs control in Bulgaria and, as already mentioned, the communication between control authorities and economic operators has shifted to a new electronic environment. To this end, the Bulgarian customs administration has developed and maintains several CISs of its own, and after joining the EU it has had access to a number of pan-European CISs. These systems provide, to a significant degree, the exchange and processing of information in the course of the various customs procedures. They serve not only as information flows between the different structural units of the customs administration but also its contacts with other agencies and institutions, economic operators and their representatives.

The commitments of the Bulgarian Customs Administration for the development and improvement of CIS come from its commitments as an EU member state and from the direct application of the UCC in its territory. The establishment of these systems must be in line with the changes in the customs control philosophy, which is about reducing the use of conventional methods of control (such as physical inspection of goods, documents or vehicles), and enhancing the use of simplified customs procedures and follow-up control on the basis of well-planned and performed risk analysis. With the new UCC, all its member states face the challenge of fully automating their customs control procedures and thereby providing economic operators and society with new digital services. The transition to such an organisation of customs control requires using a number of financial and other resources and meeting many requirements by both customs administrations and economic operators.

The prerequisites for the transition to operating in a new electronic environment, under the provisions of the UCC, present major difficulties for the member states, including the Republic of Bulgaria, as they must organise and carry out this transition by themselves. Although of paramount importance in this process is each member's national economic characteristics, they cannot ignore their commitments regarding the implementation of tariff and non-tariff measures in trade with third countries.

One of the key requirements for effective implementation of automated customs systems is ensuring security in generating, processing, transmitting and storing information that circulates between customs authorities and economic operators. A registration regime has been introduced, for Bulgaria in particular, giving access to these systems, allowing the identification of the persons using them and defining their rights and competences. In order for economic operators to have access to the information systems of the National Customs Agency, it is necessary that they be registered under Ordinance No. 5 of 29 June 2006 on the conditions and procedures for submitting customs declarations electronically (Ordinance No. 5 of 29 June 2006 on the conditions and procedure for customs declarations by electronic means, 2006). Under Article 17 of the same normative act, an economic operator (a legal entity, sole proprietor or individual) is registered by signing the registration form with a valid universal electronic signature (UES) held by the respective applicant. The registration of economic operators constitutes a single act and enables them to operate with all CISs in the country.

The UCC sets the legal basis for the introduction of the electronic exchange of information between customs authorities and economic operators, such as lodging declarations and accompanying documents electronically, which offers identical facilities to traders in each member state (Truel & Maganaris, 2015, p. 14). After the single registration, economic operators can submit data electronically to the Bulgarian CIS ('declaring') in two ways:

- **Electronic Data Interchange (EDI) messages.** This requires a system-to-system connection between the information system of the economic operator and the CIS. EDI occurs via the internet or via a direct non-dial-up (leased) line between a network node of the declarant and the *Central Customs Directorate* of the National Customs Agency. The receipt of each standard EDI message must be

confirmed by the receiving system. The current legislation in the Republic of Bulgaria provides that the declarants independently and at their own expense:

- › equip their information systems with the necessary hardware, system, network and telecommunication devices, and connect via an encrypted network channel
 - › provide the necessary software and technical devices to protect information
 - › provide the necessary connectivity between their information systems and the CIS.
- **National Customs Agency website.** Economic operators or their representatives can enter the information required to complete the relevant customs formalities directly into the CIS. To this end, the National Customs Agency (Customs Agency, 2017) website provides online forms that allow reviewing, editing, signing with a UES and sending electronic documents (e.g. customs declarations, customs manifests, entry or exit summary declarations, applications for authorisation of different procedures or issuance of documents) to the CIS.

Each option for declaring has advantages and disadvantages. Using the system-to-system connection allows the declarant to use the available software applications to maintain records of documents, optimise their work process and transfer the information entered into the system from one document to another. A significant disadvantage of this type of connection is the cost involved in building and maintaining it, which must be met by the economic operators and their representatives. On the other hand, submitting customs declarations through the website of the National Customs Agency is completely free (only internet access is required). However, completing and submitting electronic customs documents via this module is a single act, no records are kept and there are few options to automatically fill in the fields.

3. Customs information systems in the Republic of Bulgaria

Being subject to the provisions of the UCC, the Bulgarian Customs Administration has developed and implemented its own strategy for the development of information systems. It is consistent with the European Commission's requirements and provides full automation of customs control in the country within the established deadlines. The information systems of the customs agency cover a substantial part of the customs formalities for the import, export and transit of goods provided by the legislation. This allows the full inclusion of the country in the customs clearance of cargo to and from any part of the customs territory of the EU. The systems are created on a modular basis and maintain the exchange of information between each other and the customs systems of other member states, and between the economic operators in the Union. Bulgarian customs authorities use one of the following systems as intended within the control activities implemented on imports, exports and transit of goods or the administration of excise:

- **Bulgarian Integrated Customs Information System (BICIS).** This system automates all functions of customs administration, encompassing the entire spectrum of activities carried out by customs officers in the control procedures on the import and export of goods. BICIS can also be viewed as an important component of the internal control in the Bulgarian National Customs Agency. Access to BICIS is authorised on the basis of specific competences of customs officers with respect to its separate modules, and records are kept about which actions have been performed, when they were performed, and by which employee.
- **Customs Information System for Exports (CISE).** This system was put into operation on 10 August 2015 and replaced the Export Control System (ECS) – Phase 2. CISE involves EDI on export operations between economic operators, customs authorities of the exporting and outgoing customs office, and the results of control and validation of goods leaving the customs territory of the

Union. The driving factor in the system is the information contained in the electronic export customs declarations submitted by the economic operators, and under certain circumstances, the information in the Exit Summary Declarations (EXS).

- **Import Control System (ICS).** ICS is an *electronic security declaration management system* for the importation of goods into the EU customs territory. It came into effect in 2010 and covers the submission, correction and cancellation of Entry Summary Declarations (ENS), Customs Manifests (Summary Declaration for Temporary Storage) and Customs Import Declarations (Single Administrative Document – SAD). The system facilitates the acceleration of the flow of goods and contributes to the safety and security of the supply chain along the interconnected consumer electronic systems of the EU member states.
- **New Computerised Transit System (NCTS).** NCTS is a computerised transit system based on the exchange of EDI messages. These messages replace the various paper documents and certain customs formalities of the operating Common Transit System in the EU member states and in some third countries (the EFTA states, Iceland, Norway, Liechtenstein and Switzerland; and Turkey, Macedonia and Serbia). All transit declarations (including TIR Carnets) must be submitted to the customs authorities by the outgoing customs offices electronically through the NCTS, and then the system processes the information contained in them and creates conditions for exercising control over the transit movement of goods. The electronic exchange of messages in the NCTS takes place at three levels:
 - › between economic operators and Customs (external domain)
 - › between the customs offices of a Common Transit country (national domain)
 - › between the separate national customs administrations and the European Commission (common domain).

NCTS applies to all Union's transit operations (external [T1] or internal [T2]) regardless of the type of vehicle used. An exception to this rule are the cases of simplified transit procedures where other documents can serve as a transit declaration (e.g. within the simplified customs procedures for air, sea and rail transport, the customs manifest or CIM consignment can be regarded as a transit declaration).

- **Bulgarian Excise Centralized Information System (BECIS).** This system came into operation on 1 April 2013 and serves the control activities of customs authorities regarding the compliance with the excise legislation. Its scope covers:
 - › Submitting applications electronically for obtaining a status or changing a status in terms of the Law on Excises and Customs Warehouses (LAW on excise duties and tax warehouses, 2005), and enclosing the legally required documents. This option aims to facilitate communication with the customs administration, which can be conducted electronically without the need to visit the place of the relevant customs office.
 - › Issuing electronic tax administrative documents, with the data submitted to BECIS, signed with an UES. The system carries out a number of checks to ensure that correct and complete documents are prepared. Only documents that have successfully passed the check are validated by obtaining a registration number from the BECIS.
 - › Submitting all appendices of the Regulation for applying the Law on Excises and Customs Warehouses electronically.

- **Automated Information System for Document Processing and Administrative Activity (AIDA).** All electronic administrative services of the National Customs Agency that economic operators have access to are realised through this system. AIDA provides an option for selecting a specific administrative service and a customs office to which the electronic application for the respective service can be submitted. Once the application form is completed with the necessary information, it is automatically registered and sent to AIDA for follow-up processing. A number of administrative services by the Bulgarian Customs Administration (Customs Agency, 2017) are currently performed online using this system (see Table 1).

Table 1: Administrative services, provided by the AIDA Customs Information System

Granting	<ul style="list-style-type: none"> • Authorisation to use a comprehensive guarantee or guarantee waiver, with goods placed under a transit procedure • Certificate of Approval • Authorisation to use simplified procedures • Authorisation to grant the status of approved exporter • Authorisation to grant the status of authorised consignee (transit + TIR) or Authorised consignor (transit) • Authorisation for customs economic procedure/end use • Authorisation for access to TIR regime • Certificates of Authorised Economic Operator (AEO) • Certificates EUR.1 • Authorisation for the application of simplified procedures for the carriage of goods by rail, large containers, air, or sea
Performing	<ul style="list-style-type: none"> • Customs control outside the normal working hours and/or outside the customs office • Scientific laboratory studies and preparation of expert opinions • Checks, measurements and loading/unloading at the request of stakeholders
Providing	<ul style="list-style-type: none"> • Binding Tariff Information (BTI) • Binding origin information (BOI) • Information on the presence or absence of obligations for public receivables collected by customs authorities
Submitting and reviewing	<ul style="list-style-type: none"> • Applications for the implementation of measures to protect intellectual property rights • Warnings • Complaints

AIDA covers all structural subdivisions of the National Customs Agency, and is integrated with other information systems, including the Unified Environment for the Exchange of Electronic Documents of Public Administration (UEEED) (Law on e-governance, 2007). This system allows for automation of the internal document flows within all units of the Bulgarian customs administration, which in practice realises the e-governance of the administrative processes within it. This is useful for the customs administration in terms of intensifying its work, and for economic operators as they can communicate with the customs authorities through the system, thus eliminating the need for direct contact with them.

The systems under consideration maintain functional online connection with the established pan-European CISs, which allows effective and fast real-time data exchange with the customs administrations of other EU member states. These systems are the following:

- Customs Decisions
- Binding Tariff Information (BTI)
- AEO and impacts of Mutual Recognition Agreements (MRA)
- Automated Export System (AES)
- Transit System including NCTS
- Registered Exporter System (REX)
- Anti-Counterfeit and anti-Piracy Information System (COPIS)
- EU Customs Single Window program
- Classification Information System (CLASS)
- Economic Operators Registration and Identification subsystem 2 (EORI 2).

Similar links have been developed at the international level, with eTIR and eATA being the most important ones.

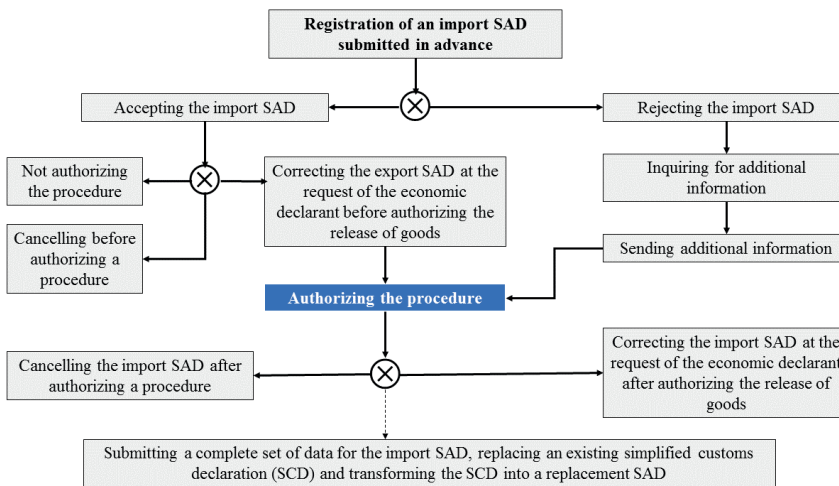
4. Functional specifications of customs information systems in Bulgaria

The information systems presented below form the backbone of the Bulgarian customs control system, allowing for automation of a large part of the customs procedures. Without using them Bulgaria would not be able to meet the high standards of customs control imposed by the European Commission, the World Customs Organization (WCO) and the World Trade Organization (WTO). The systems administering customs procedures for the import (ICS), export (CISE) and transit (NCTS) of goods have a leading role in performing the functions assigned to customs control. By their nature, customs procedures can be defined as actions required by the customs authorities aimed at compliance with customs legislation regarding the goods under customs supervision. They are used to find out certain facts and events, regulate the deviations made from the legal norm and ensure the normal course of the customs process. Therefore, one can say that it is customs procedures that are the functional expression of control authority and manifestation of its interconnected elements (Tomeva, Gancheva, & Antov, 2016, p. 147). This fact underpins the drive towards developing and implementing computer information systems that automate the implementation of customs processes and improve the efficiency of the customs control performed in the Republic of Bulgaria and in the other EU member states.

The three CISs discussed here automate a number of business processes associated with the filing and acceptance of customs declarations (SAD) submitted electronically for placing goods under a particular regime, as well as other documents relating to customs clearance (e.g. Customs Manifest, Summary Declaration for Temporary Storage, Entry or Exit Summary Declarations). The functional specifications of these systems strictly define the type and procedures of the messages used (to and from the systems), their structure and the rules which they must meet, and the terms and procedures for handling errors that may occur. The processes handled by these systems under the customs procedures are as follows:

ICS. The steps for processing customs declarations are carried out in a strictly defined sequence, and apply to the following customs procedures: release for free circulation, temporary importation, inward processing, customs warehousing, free zone and end use (Cystoms Agency, 2014). This process is outlined in Figure 1.

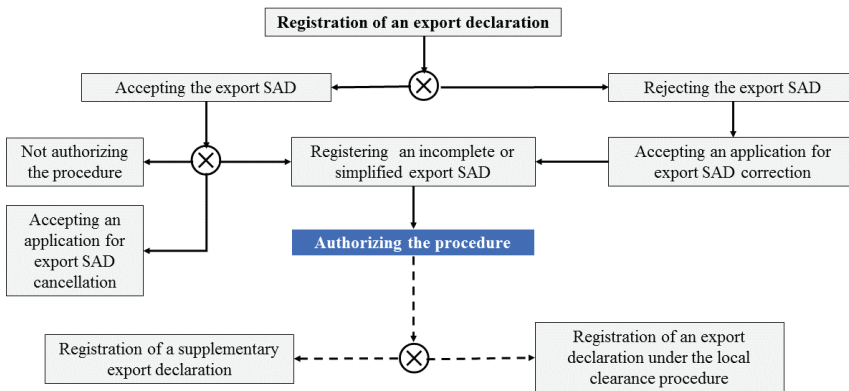
Figure 1: Functional specification of import control system (ICS)



After the SAD for import lodged in advance is registered, depending on its compliance with the requirements for its clearance, it is accepted or rejected, by the information system. Where there are discrepancies, the customs authorities may request more information from the economic operator and after processing it they decide whether or not to authorise the relevant customs procedure. The ICS CIS can process applications submitted by economic operators for corrections or cancellation of the SADs lodged. This is possible both before the authorisation for the release of goods and after such authorisation has been granted. ICS involves algorithms for processing simplified customs declarations (SCD) and their subsequent transformation into replacement customs declarations. This is especially important as the use of simplified customs procedures is an increasingly preferred way for customs clearance of imported goods by economic operators.

CISE. CISE handles processes in SADs submitted for placing goods under the following customs procedures: export, temporary export, outward processing and re-export (Customs Agency, 2015a). The functional specifications of CISE are set out in Figure 2.

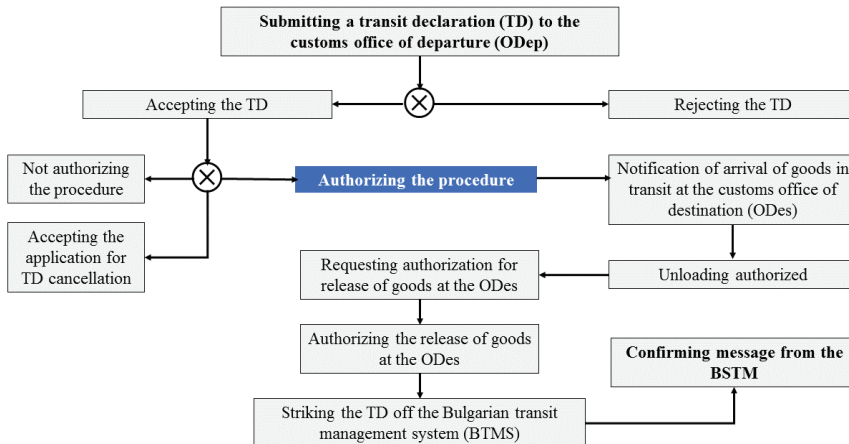
Figure 2: Functional specification of CISE



The SADs submitted by economic operators via the CISE are subject to formal verification in terms of their complete and correct clearance. Based on this verification, the system accepts or rejects the relevant declaration and electronically sends a message to the declarant specified in it. If necessary, the system processes incomplete or simplified SADs, as well as local clearance declarations submitted by economic operators authorised to use simplified customs procedures for export of goods.

NCTS. NCTS handles the processes of EDI between economic operators and customs authorities related to operations with SADs or TIR Carnet under the Union Transit procedure (Customs Agency, 2015b). These operations are shown in Figure 3.

Figure 3: Functional specification of the customs information system for processing a transit procedure



The processes for each transit operation start in the Office of Departure (Odep), which is where customs declarations for placing goods under procedure should be submitted. The information system processing them verifies the available conditions for their acceptance and registers or rejects the transit declarations. Once the customs authorities verify the security provided and all other conditions under the procedure, they authorise or refuse its activation. From a spatial perspective, the following operations with the transited goods are carried out at the Customs Office of Destination (ODEs), which should be informed

by the economic operator via the information system about goods in transit that arrived at its office. After processing the permit to unload the goods and analysing the results of the physical checks on goods, the customs officials authorise their release. The release of the goods is regarded as grounds for striking the transit declaration off the Bulgarian Transit Management System (BTMS) and in particular the NCTS. The procedures for each transit operation end after sending the confirmation email from ODe to ODep regarding the actual and accurate completion of the procedure.

The above functional specifications of the three main CISs show similarities between some of the processes administered in terms of processing the submitted customs declarations for placing goods under the relevant customs procedures. The relatively equal goals set by the functions of customs control can be regarded as a prerequisite for that similarity. It is exactly these functions that determine the presence of certain uniformity within the applicable customs procedures that accompany the entry, import, export, and transit of goods. These circumstances, in turn, allow the identification of the leading processes, which are implemented in all three CISs. These processes can be summarised as:

- submitting customs declarations
- accepting or rejecting customs declarations
- processing customs declarations
- correcting submitted customs declarations
- cancelling submitted customs declarations
- requiring or sending additional information (from the economic operator to the system and vice versa).

The presented technological sequence of the main processes in CISs reveals the leading role in the overall coverage of customs procedures for the import, export, and transit of goods. In turn, the opportunity of economic operators and customs officials to carry out customs procedures fully electronically is an expression of the modern understanding of organising the business processes in each economic entity. At the same time, it should be borne in mind that customs clearance of traded goods is directly dependent on the functioning of the information systems in the National Customs Agency. This leads to the conclusion that these systems underlie the customs control implemented in the Republic of Bulgaria and have a significant impact on its efficiency.

5. Advantages and disadvantages of using customs information systems

The CCU aims to simplify customs legislation and allow the use of modern tools and technologies for efficient and fast customs procedures. Their use is a key element in ensuring trade and reducing business costs and risk to society (Decision No 70/2008/EC of the European Parliament and of the Council of 15 January 2008 on a paperless environment for customs and trade, 2008). This is due to the fact that information systems are generally highly effective in environments where there is a significant amount of data and precise calculations are needed for the many different parties that are concerned (Dečman & Klun, 2015, p. 110). The specialised CISs allow for the automation of most of the activities carried out by customs officials and economic operators. In terms of customs control these systems aim to:

- **Improve the efficiency of the customs control system.** The increasing volume of international trade and the involvement of more and structurally diverse participants in international supply chains require the development of efficient computer information systems to automate and accelerate customs procedures.

- **Improve economic operator service.** The use of IT systems reduces the time and cost of processing cargoes, limits the possibility of making mistakes and eliminates arbitrary treatment by customs control officials.
- **Intensify the information activities in customs procedures.** The processing of large volumes of data is a challenge for any information system, but the availability of sufficient, reliable, timely and targeted information is a prerequisite for the modelling of a proper control attitude towards the objects of control (such as economic operators, goods, vehicles, documents presented).
- **Improve the working conditions of customs officers.** The automation of the customs control process gradually relieves control officials of routine activities, such as keeping records, searching for and analysing certain information, and corresponding with third parties.
- **Improve the relations with external organisations.** The customs authorities can exchange operational information electronically with other individuals and organisations, which in turn is a prerequisite for multiplying the effect of the control activities performed.

Every year, the Directorate-General for Taxation and Customs Union of the European Commission prepares reports on the progress made in implementing the Commitments on Automated Customs Information Systems in the Member States of the EU (Directorate-General for Taxation and Customs Union, 2016, p. 15). Data shows a high degree of automation, with more than 93 per cent of customs declarations submitted and processed electronically by 2015. The Republic of Bulgaria is not lagging behind in this respect, as the number of processed customs declarations in paper form is insignificant (used as an emergency procedure when the relevant information systems temporarily fail).

Despite the variety of electronically managed administrative processes in terms of controlling the import, export or transit of goods in Bulgaria, there are some customs procedures that are not yet automated and their administration involves the active participation of customs officials. These procedures include the identification and verification of the declared tariff classification of goods, the transformation of the customs value of the goods in BGN, and the calculation of customs duties. The conventional implementation of these procedures can be seen as a high-risk area for the customs control system because of the increased likelihood of errors and violations.

The positive attitude towards strengthening the implementation of automated customs formalities does not mean that it is always possible and easily achievable. In practice, the processes of planning, developing and implementing CISs are accompanied by certain difficulties. The development of these systems is usually time-consuming and requires significant financial resources. Therefore, despite the overall automation of customs control in the Republic of Bulgaria, conventional means and methods of control are still used in certain customs procedures. In order to solve this problem more quickly, Bulgarian customs administration can use European funds within the relevant operational programs. A good example here is the 'Develop and implement architecture of information and technology services, processes and infrastructure of the Agency "Customs" (*Enterprise Architecture*)' project completed in September 2015, realised with the financial support of the operational program 'Administrative capacity', co-financed by the EU through the European Social Fund.¹

Taking into account the slow pace at which the National Customs Agency builds its information systems, an in-depth analysis of its business processes is needed so that those customs formalities that will be transferred to the new electronic environment can be prioritised. It would be appropriate to use proven approaches from within the field of IT, such as the Control Objectives for Information and Related Technology (CobiT) framework.² Such an approach would contribute to the overall improvement of the efficiency of the customs control system in the Republic of Bulgaria.

Conclusions

The transition to an information society strongly affects the activities of all parties involved in international trade. In practice, this predetermines the necessity to build and develop specialised information systems that facilitate the work of customs control authorities. The development and implementation of these systems bring a number of benefits for both economic operators and customs administrations.

The automation of certain parts of the customs control procedures saves time and resources, allowing for more effective targeting of those parts of the international supply chain where deviations are more likely. In this respect, the comprehensive automation of customs controls in Bulgaria is both logical and beneficial. This automation is a consequence of the commitments made by Bulgaria as a full member of the EU and the direct application of the provisions of the UCC on its territory.

From a functional point of view, the information systems related to controlling the import, export, and transit of goods are the most important in fulfilling customs formalities. These are the Import Control System (as part of BICIS), the CISE and the NCTS transit management system. These systems are used to administer a number of processes related to the processing of customs declarations (SAD) for placing goods under a certain procedure submitted by economic operators. The similarity of the objectives and functions in the specific customs procedures is manifested within the customs procedures themselves. This enables performing key processes that are the backbone of the Bulgarian customs information systems. The development and improvement of these processes is in line with the Customs 2020 program, applied in the EU member states, which is a prerequisite for increasing the efficiency of customs control in the Republic of Bulgaria.

References

- Commission Implementing Decision (EU) 2016/578 of 11 April 2016 establishing the Work Programme relating to the development and deployment of the electronic systems provided for in the Union Customs Code, OJ L 99 (15 April 2016).
- Customs Agency. (2015a). *MISI – Model of activities* (3.3 ed.). Sofia: Customs Agency.
- Customs Agency. (2015b). *Functional specification for electronic data interchange (EDI standard messages), when electronic transit declaration is declared, through a pre-built system-to-system connection* (4.08 ed.). Sofia: Customs Agency.
- Customs Agency. (2017, 04 28). *Bulgarian Customs Agency e-Portal*. Retrieved from Bulgarian Customs Agency e-Portal: <http://www.ecustoms.bg/eportal/>
- Customs Agency. (2017, 04 28). *Platform for electronic administrative services of the Customs Agency*. Retrieved from Administrative services: <https://onlinefrontoffice.ecustoms.bg/customs/aidaportal.nsf/home.xsp>
- Customs Agency. (2014). *Functional Specification for a System for electronic filing of a Common customs manifest and SAD for importation* (1.5 ed., vol. 1.5). Sofia: Customs Agency.
- Decision No 70/2008/EC of the European Parliament and of the Council of 15 January 2008 on a paperless environment for customs and trade, OJ L 23 (26 January 2008)
- Dečman, M., & Klun, M. (2015). The impact of information systems on taxation: A case of users' experience with an e-Recovery information system. *The Electronic Journal of e-Government*, 13(2), 110–121.
- Directorate-General for Taxation and Customs Union. (2016). *Electronic Customs Multi-Annual Strategic Plan (MASP Rev. 2016)*. Brussels: European Commission.
- Law on e-governance, State gazette No. 46 (6 December 2007 r.)
- Law on excise duties and tax warehouses, State gazette, No. 91 (15 November 2005).

Ordinance No. 5 of 29 June 2006 on the conditions and procedure for customs declarations by electronic means, State gazette No. 55 (29 June 2006 r.).

Regulation (EU) No 952/2013 of the European Parliament and of the Council of 9 October 2013 laying down the Union Customs Code, OJ L 269 (10 October 2013).

Tomeva, M., Gancheva, Z., & Antov, M. (2016). *Currency and Customs Control*. Veliko Tarnovo: Faber.

Truel, C., & Maganaris, E. (2015). Breaking the code: the impact of the Union Customs Code on international transactions. *World Customs Journal*, 9(2), 12–23.

Wolffgang, H.-M., & Harden, K. (2016). The new European customs law. *World Customs Journal*, 10(1), 3–16.

Notes

- 1 The contract for providing the grant No. A13-31-2 was signed on 11.04.2014, and has a total value of 3,500,606.08 BGN.
- 2 The standards and ‘CobiT’ framework are issued and maintained by the ISACA (Information Systems Audit and Control Association), viewed 28 April 2017, <https://www.isaca.org> (*last visited: 28.04.2017*).

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