



E-CMR - AN IMPULSE TO INNOVATIVE DEVELOPMENT OF THE TRANSPORT INDUSTRY

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ANNOTATION

We know that the introduction of innovative technologies in document management in the field of international transportation is of great importance and relevance, which will reduce the time spent on the transportation route. The fundamental difference between e-CMR and its paper predecessor is the electronic form of the input information about cargo transportation and all participants of this process. Digitalization e-CMR allows real-time storage of data on logistics operations and exchange them. An indisputable advantage is also the informative speed.

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The effectiveness of the national economy, economic growth, and the sustainability of the development of vertically integrated systems, territorial complexes and foreign economic activity are largely determined by the functioning of transport and the transport complex as a whole.

On the one hand, this industry reflects the level of development of the national economy and its competitiveness, and on the other hand, the level of economic security of the country.

Currently, innovative solutions and achievements in the field of maintenance and operation of the transport, original infrastructure and technical developments aimed at improving freight transportation are actively being promoted around the world [1].

Of great importance in improving the organization of the transportation process in modern conditions is the use of mathematical methods and computer modeling methods, as well as the introduction of high-tech intelligent systems, such as ITS (Intelligent Transport System).

Intelligent Transport System (ITS) is an advanced application that, not embodying intelligent information, is designed to provide innovative services related to various modes of transport and traffic management, and allows users to be better informed and more secure, more coordinated and “Smart” use of transport networks.

ITS can include various models, technologies, and systems. Cumbersome definitions are a consequence of the fact that ITS is a place of contact between the motor transport industry and the information technology industry and is based on the modeling of transport systems and the regulation of traffic flows.

The values of ITS in the broad sense can be divided into 2 categories. The first considers ITS as a factor that helps mitigate the most negative aspects of transport systems through policies. Vivid examples are the collection of fees for entry into places of accumulation of motor vehicles, emissions charges, fees for violation of environmental standards, etc. The second category considers ITS as a catalyst for achieving social mobility on an as equitable basis (for pedestrians and cyclists in conditions of car dominance on the roads), as

well as improving the efficiency of the trade regime for goods (for example, thanks to the e-CMR and e-TIR procedures).

In the field of international freight transportation, the introduction of innovative technologies in document management is of the greatest importance and relevance, which allows to reduce time costs on the route of cargo.

One of the innovative innovations in the field of freight transportation was the addition (protocol) to the Convention on the Contract for the International Carriage of Goods by Road (CMR), developed in 1956. This convention is aimed at standardizing contractual conditions, as well as the liability of the carrier for the carriage of goods by road, if the points of departure and destination are in two different countries, and at least one of the countries is a contracting party. Parties to this Convention are about 55 states worldwide, as a result of which the use of CMR in these countries is mandatory.



Fig. 1. Member countries of the CMR system

In February 2008, the CMR was supplemented by a protocol that proposed electronic control of the CMR through a digital analogue of e-CMR. This protocol entered into force on June 5, 2011, and as of January 2020, 23 countries have joined it [2].



Fig. 2. Geography of e-CMR on 01/01/2020

The first pioneering international transport using an electronic consignment note took place on January 19, 2017. A refrigerated truck with perishable cargo (oranges) was sent from the Spanish city of Huelva to the French city of Perpignan. The total distance was a total of 1300 km. The organization of the route was worked jointly by the Spanish Union of International Transport Port ASTIC, the French Association FNTR and the IRU [3].

The fundamental difference between e-CMR and its paper predecessor is the electronic form of input information about freight transportation and all participants in this process. Digitalization e-CMR allows real-time storage of data on logistics operations and exchange them. An indisputable advantage is also an informative speed. Timely registration of data on cargo transportation means that the tax and customs services, as well as the involved departments, instantly receive the necessary information about the cargo being transported. Thus, all actions associated with transportation, for example, legal procedures, billing and even the elimination of accidents, are cheaper and faster. The electronic consignment note also minimizes the likelihood of error due to the human factor, and is also compatible with digital platforms in different languages of the world. All these advantages represent e-CMR as a document for the smooth functioning of the transportation process at the international level.

Thanks to its digital filing, e-CMR invoices are easily integrated with other services that are used by shipping companies, for example, forwarding, customs declaration or transport management services. The transition to electronic invoices marks for all participants in the transportation process the benefit of improving the efficiency of logistics processes, which consequently leads to increased competitiveness. Another benefit is the increased safety of vehicles along the route of cargo, because The e-CMR can be linked to the popular European trucking system, eCall, which automatically dials emergency services in the event of a road accident.



Fig. 3. Benefits of implementing e-CMR

According to the assessment of the Netherlands transport authority, the transition to the use of e-CMR consignment notes can optimize the process of administering workflow and reduce the cost of processing an electronic e-CMR consignment note almost four times compared with the paper version - from 6.23 to 1.69 euros. Taking into account the total volume of paper invoices drawn up - about 40 million a year - the economic effect of using e-CMR will be at least 180 million euros.

The Republic of Uzbekistan acceded to the Convention on the agreement on the international carriage of goods by road on December 27, 1995, and has now expressed its intention to accede to the additional protocol to this Convention. Along with benefits at the national level in the form of lower costs and improved data

exchange procedures, the transition to the use of e-CMR invoices will indicate that Uzbekistan intends to develop paperless document management in auto-mobile transportation [4].

The formation of the necessary infrastructure for the transmission of documents in electronic form is important for the transport industry in Uzbekistan, where there is an urgent issue of increasing the transparency of data exchange both between participants in the transportation process and the involved departments. Also, the introduction of an electronic bill of lading for Uzbekistan will make it possible to advantageously position the country in the international transport services market, and, therefore, increase the country's competitiveness in the international arena as a whole.

Uzbekistan's foreign economic cooperation with the countries of Europe, which is gaining momentum, is another factor in favor of the Republic joining the additional Protocol.

The implementation of electronic document management with the main partners of the European part of the continent that have signed the Protocol will significantly reduce the time costs for transporting goods and crossing through border posts, this is especially true when transporting food products, including fruits and vegetables that require special -by modes of transportation.

Table 1.

Dynamics of large partner countries in the foreign trade turnover of the Republic of Uzbekistan, which are part of the e-CMR system (January-December, million US dollars) [5]

PartnerCountry	2017		2018		2019	
	export	import	export	import	export	import
theRussianFederation	2 019,2	2 709,5	2 117,3	3 538,6	2 492,5	4 134,4
Turkey	877,8	674,7	944,8	1 112,8	2 525,2	1 321,6
Lithuania	6,2	259,5	12,6	278,6	22,6	443,9
Latvia	82,3	212,7	46,3	392,4	48,9	325,3
Belarus	27,4	155,0	41,3	377,2	47,6	283,2
Iran	267,2	58,1	172,9	133,9	219,6	204,6
France	148,9	108,2	196,3	116,5	205,7	140,0

From table 1 it is seen that the volume of foreign trade for 3 years increased by 1.5-2 times. The main exports to these countries are textile products, food products (mainly fruit and vegetable products), non-ferrous metals and their products, as well as chemical products. The main share of transportation falls on road transport, which is distinguished by its maneuverability and door-to-door delivery. It is worth noting that the above states are among the 20 countries of partner countries in the export of goods and services.

For Uzbekistan, joining the Protocol of the Convention is a step towards transparency of road transport and the creation by electronic fixation of the most accurate and complete list of transport companies in Uzbekistan involved in foreign economic activity. It also opens up the possibility of creating a base of

respectable carriers, which provides confidence in the correct and competent transportation for all participants in the export-import cargo delivery chain.

However, within the framework of the project, it is very important to join all the CIS countries from the Central Asian region, which will allow performing transit operations also through the use of e-CMR. This will ensure an uninterrupted "digital" chain along the route of the cargo. For Uzbekistan, after joining the e-CMR system, it is important that Kazakhstan and Turkmenistan also become part of the system. The argument is 80% of the flow of all export cargo, following through Yallam's grand cross-transit through Kazakhstan to the markets of Russia, Belarus and Europe, as well as 90% of the flow of export-import cargo from Iran and Turkey in transit through Turkmenistan (Alat border crossing road).



Fig. 4. Uzbekistan's cargo flow to Russia and Europe in transit through Kazakhstan (Yallam border crossing)



Fig. 5. Uzbekistan's cargo flow to Iran and Turkey in transit through Turkmenistan (Alat-road border crossing)

Thus, the introduction of e-CMR in logistics will be an additional impetus to the spread of paperless document management in international road transport, especially when transporting to European countries.

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