

ELECTRONIC SERVICES IN FREIGHT TRANSPORT AND QUALITY

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ABSTRACT

In the world and in the European Union (EU), electronic services have long been used in the transportation business. These services are also being introduced in use in B&H. They bring a number of advantages, some of which are: a significant reduction in the duration of business procedures, a reduction in the costs of carrying out various business procedures in transport business, no usage of paper, rows of transport vehicles at border crossings are shorter. These advantages greatly contribute to the quality of services for all who use them. The use of these electronic services contributes to quality of services and brings them closer to the level of those used in the world and Europe.

Keywords: Electronic service, transportation, quality.

1. INTRODUCTION

The introduction of digitalization in freight transport brings a number of advantages. Electronic services put paper documents out of use, which in many ways leads to a reduction of costs and duration of equivalent business procedures. Usage of electronic services also brings significant economic effects, and because of that they have long been in use in developed countries. Usage of electronic services in freight transportation also brings specific additional advantages: much faster customs control on border crossings; rows of trucks at border crossings are shorter; total time of delivery of goods from loading to unloading is shortened, by that and transport costs.

2. ADVANTAGES OF ELECTRONIC SERVICES IN FREIGHT TRANSPORT

The process of digitalization is present in all activities, including in the activity of freight transportation. One way of digitalization is the introduction of electronic services. The use of electronic services provides a number of advantages: they are always available, they shorten the duration of work procedures, they reduce the costs of providing services, they do not use paper, and others. The mentioned advantages bring to the users benefits in time, space and money. The data of electronic services are more legible, neater and clearer than those on paper forms, which are very often crumpled, illegible and unclear. The activity of freight transportation using electronic services also gets additional advantages specific to this activity. Some of these advantages are: much faster customs control when crossing borders; rows of vehicles at border crossings and roads are reduced; the total time of delivery of goods from loading to unloading is shortened, by that and transport costs. The reduction of transport time from loading to unloading of goods caused by digitalization in transport contributes also to the reduction of air pollution and to decarbonization, which are currently a global

problems. Each of above mentioned advantages gives its contribution to the improvement of the quality of transport activity. Taken together, the mentioned advantages contribute even more to the improvement of quality. It is important to emphasize that some of the advantages affect on other activities as well. So, for example, the reduction of queues at border crossings affects the faster flow of traffic at border crossings, i.e. the flow of traffic at border crossings between two countries.

It can be concluded that the usage of electronic services in freight transportation contributes to the overall quality in the country where it is used.

3. ELECTRONIC SERVICES IN FREIGHT TRANSPORT

The following electronic systems and services are essential for B&H freight transport: eTIR, EPD, NCTS, eCMR, eFBL, ITS. A significant part of the mentioned electronic services is not yet in use. This was contributed to by poorly and very slow introduction into use of the electronic signature, which is required for some of the mentioned electronic services.

3.1. eTIR

The TIR system enables the transportation of goods through several countries using shortened customs procedures. It has been used in BiH for a long time. This system also has its electronic version: eTIR, which brings an additional set of benefits. 25.05.2021. the use of eTIR is enabled for all 77 member states. [15] eTIR contains several applications: EPD (Electronic Pre-Declaration), RTS (Real-Time SafeTIR), AskTIRWeb. [6] These 3 TIR applications enable the exchange of data between: TIR carriers, TIR associations, customs and IRU.



Figure 1. The logo of the eTIR service

3.2. TIR-EPD

TIR-EPD (Electronic Pre Declaration) is an electronic subservice of eTIR. This Web application enables transport companies having TIR guarantees to send electronic pre-declaration data to customs offices in transit countries and to contact them by special email messages. The national representative in the IRU can also send this data on behalf of transport companies its members. To use TIR-EPD, it is necessary to have a valid TIR carnet.

EPD enables the exchange of information in advance, long before arrival at the border crossing, which facilitates risk analysis and makes border crossings simpler, faster and safer.

TIR-EPD is used in BiH. Its use is mandatory in the European Union since 2009.. Besides in the EU, the usage of EPD is also mandatory in: the Eurasian Customs Union since 2012., in Ukraine since 2013., in Iran since 2014.,...

In January 2017., 33 states were using the EPD, and more states were interested in introducing it. [7] In some countries, EPD declarations are used for 95% of TIR carnets.

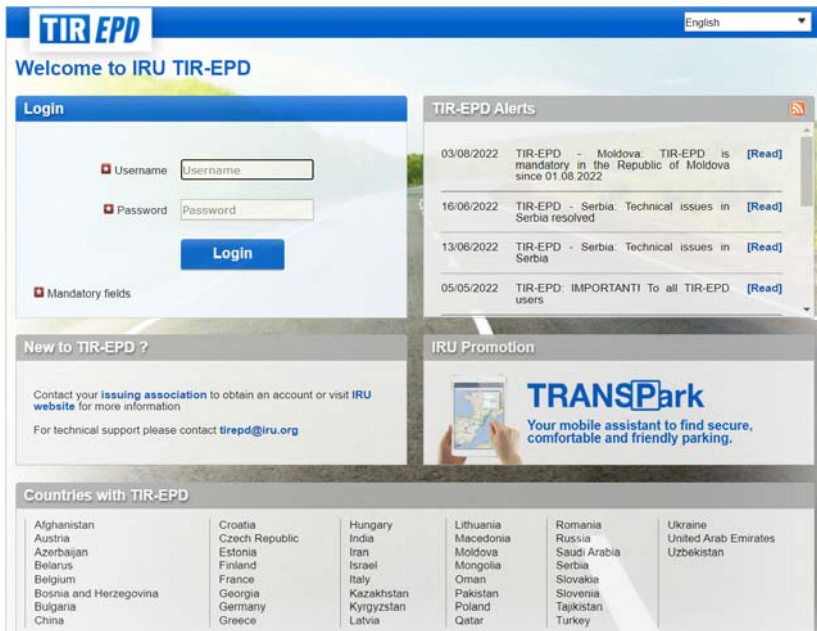


Figure 2. Home (Login) page of the TIR-EPD Web application. [7]

As an electronic service of the IRU, the EPD is not limited only to EU member states, but it can be used all over the world.

3.3. NCTS

The system NCTS (New Computerized Transit System) is a computerized transit system of the EU. It has long been used in EU countries. The use of NCTS is mandatory in EU countries. The NCTS is also one of the conditions for the entry of a new country into the EU membership. Its use brings many improvements that reduce the costs and duration of customs procedures. It is currently used in 35 countries. [13]

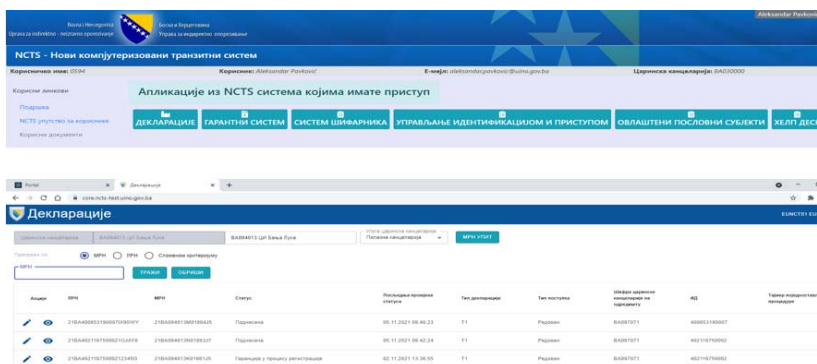


Figure 3. Web page of the NCTS

The advantages of the system NCTS are: simplification of transport procedures, reduction of the duration and costs of processing transport documentation, reduction of queues of trucks at border crossings and customs offices. The introduction of the system NCTS modernizes customs procedures and brings them to levels corresponding to those used in the EU. This

system improves the work of not only domestic, but also foreign transporters who carry out transport in or from Bosnia and Herzegovina. The disadvantage of NCTS compared to other electronic services is its limitation to the EU area. This electronic system requires use of an electronic signature.

The start of usage of the NCTS in B&H has been postponed several times since 2016., when its introduction was planned. [14] The test usage of NCTS in B&H started on 01.08.2022.. [10] After one year of operation since specified date of introduction, this system will be able to be used in the international computerized transit system NCTS.

3.4. eCMR

eCMR is an electronic service of the IRU, which replaces the paper bill of lading form with an appropriate electronic form. For its use, it is necessary to ratify the amended protocol of the Agreement for the International Carriage of Goods by Road (CMR) dated from 2008, which entered into force in 2011.. [4] The last ratified CMR protocol in BiH is from 1978.. [16] This agreement allows the use of paper CMR forms, which are still in use. Besides the ratification of mentioned protocol, this electronic service also requires an electronic signature, with the use of which in BiH still has problems. eCMR, as an electronic service of the IRU, is a global service. This means that it is not limited only to area of the EU, but can be used in all countries of the world that are signatories of mentioned convention.

3.5. eFBL

Digitalization is also used in multimodal transport. 22.03.2022. the FIATA is introduced the electronic bill of lading for multimodal transport: electronic FIATA Bill of Lading (eFBL). Important advantage of eFBL compared to other electronic services in transport is multimodality. Unlike eCMR, eFBL does not require protocol ratification. As a multimodal, this electronic service could be used by: freight forwarders and transporters using various types of transport (road, rail, air, river, sea).

3.6. ITS

Intelligent Transport Systems (ITS) is also a type of digitalization related to transport. The ITS contributes to the safety of traffic flow on the roads. By using modern technologies, the ITS provides a series of useful information about the state of traffic on the roads. For example: weather conditions, traffic density, online video information, notifications about accidents and traffic jams, notifications about changing the road route in case of traffic jams, and others. This information is important to transport companies, truck and bus drivers, and other participants in traffic. A particularly important advantage of the ITS system is that it significantly shortens the duration of the trip in case of traffic jams. The ITS are used in the EU and neighbour countries, and with them are equipped several sections of highways in Bosnia and Herzegovina.

4. CONCLUSION

Process of digitalization is also present in the freight transport industry. One of the types of digitalization is usage of electronic services and systems. Their use in the transport industry brings many advantages. Each of these advantages gives its contribution to the improvement of the quality of transport activity separately, and even bigger when these contributions take together. Some of the advantages affect on improvement of the quality of another activities. Usage of electronic services in the freight transport contributes to the improvement of overall quality in the country where they are used.

The fact that some of the electronic services in freight transport are mandatory in some countries and groups of countries (NCTS: EU) speaks enough about their importance. Introduction of electronic services in B&H is very slowly, with many problems and long delays. One of the reasons for this is electronic signature, which is not yet introduced in wider usage. Another reason is too slow and lengthy procedures for adopting new and amending existing laws at the level of the state and the Federation of B&H, and approvals for the ratification of various protocols. In B&H are currently in use: eTIR, EPD and NCTS.

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