ORIGINAL ARTICLE
DOI: https://doi.org/10.30932/1992-3252-2021-19-2-12

World of Transport and Transportation,
2021, Vol. 19, Iss. 2 (93), pp. 226–234

Structural and Content Characteristic of the Object of Combined Transport

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ABSTRACT

The article presents the results of a comparative analysis of equivalence of structural and content characteristics of individual terms used in combined transport contained in various official regulatory documents. Differences in definitions of individual terms in that subject area often impede effective integration of transport systems at interregional or international level. This study focuses on the analysis of characteristics of structural components of the objects of combined transport, which are contained in definitions of this term in a number of international agreements, national regulations and interstate standards. The results of the study have allowed to formulate proposals aimed at unification of structural and content characteristics of the object of the combined transport as well as recommendations for improving certain regulatory documents.

Keywords: transport, multimodal transportation, intermodal transportation, combined transport, international agreements on combined transport, objects of combined transport.

For citation: Larin, O. N. Structural and Content Characteristic of the Object of Combined Transport. World of Transport and Transportation, 2021, Vol. 19, Iss. 2 (93), pp. 226–234. DOI: https://doi.org/10.30932/1992-3252-2021-19-2-12.

Acknowledgments. The main provisions of this study were initially presented at the Meeting of Experts of the Commission on Freight Transportation of the Organisation for Co-operation between Railways, which took place in July 2020 and was devoted to topical issues of organising combined transport in international traffic. The author expresses gratitude to the organising committee of the Meeting for the opportunity to take part in the discussion on modern directions for improving organisational and technological aspects of implementation of combined transport, which made it possible to improve certain provisions of this study.

The text of the article originally written in Russian is published in the first part of the issue.
Текст статьи на русском языке публикуется в первой части данного выпуска.

INTRODUCTION

Transport plays a decisive role in ensuring sustainable social and economic development of any state. Moreover, this thesis is of particular importance for the countries of Europe and Asia. Since ancient times, reliable and efficient communications implemented with different modes of transport have been the main condition for expanding international and interregional trade and humanitarian cooperation between the countries of the Eurasian continent. A striking example of the key role of land transcontinental routes in establishing such cooperation is demonstrated by the Great Silk Road, which was actively used in ancient times and is rapidly reviving in recent years on a new modern technical, technological, and organisational basis.

At the same time, more and more countries of the continent are interested in development of predominantly land international transport communications using several modes of transport with dominant participation of railways. It is sufficient to note that there is demand for new railway routes of the revived Silk Road for foreign trade relations as evidenced by high growth rates of traffic volumes and of the number of container trains in transit through the countries of the Eurasian Economic Union, primarily through Russia, Kazakhstan, and Belarus.

The most important condition for further improving of the efficiency of international land transportation is facilitation of cross-border trade, customs and transport procedures based on application of a system of uniform national and interstate standards and rules, which should use professional concepts and terms unified in content and meaning [1]. At the same time, the terminology introduced into circulation should identify and interpret as correctly as possible the essence of the phenomena and processes being determined in relevant fields of activity: economics, technology, law, etc.

The need to unify transport terminology at the interstate level is also due to the fact that the legal categories enshrined in relevant agreements are then implemented into the legislation of individual states or interregional associations. An example is the Convention on International Multimodal Transport of Goods, which was adopted by the UN in 1980 (hereinafter referred to as the Convention) but has not yet entered into force [2]. Nevertheless, the Convention, albeit nominally, that is, not legally, but only in fact, secured a certain meaning and semantic content for certain professional terms. Then the corresponding terminology began to be actively used by the expert and professional community in business and scientific research, and in some countries, it has already been integrated into legislation. In particular, ASEAN countries have adopted the Framework Agreement on Multimodal Transport, which is largely based on the provisions of the above-mentioned Convention. Therefore, improvement of the terminology of combined transport should be carried out in conjunction with improvement of the modern international system of sectoral regulatory and legal regulation of such transportation.

In this regard, it should be recognized that the work on improvement and unification of the terminology for combined, intermodal and multimodal transportation is carried out by experts of the Organisation for Co-operation between Railways (hereinafter – OSJD) in cooperation with experts from the UN Economic and Social Commission for Asia and the Pacific (hereinafter – ESCAP) and other organisations participating in OSJD. This initiative of OSJD experts is gaining special relevance against the background of active digitalisation of the transport industry. In modern conditions, a computer must not only record electronic signals, but also understand the meaning of text and words as well as a person does. That is why, in the era of digital transformation of the economy and social sphere, the international expert community should focus on standardising terms and definitions used by public authorities and the business community. According to experts from the UN Centre for Trade Facilitation and Electronic Business (UN/CEFACT), the use of a single conceptual format increases the efficiency of business processes, reduces the risk of errors, and diminishes the cost and time for execution of international trade transactions [3].

The use of a common terminology in the field of combined, intermodal, and multimodal transportation provides the following effects:

- Semantic compatibility of data in trade and transport contracts.
- Implementation of the principle of a «single form» for documents.
- Development of a methodological basis for classifiers and standards for various types of transportation.

For a number of years, the combined method of delivery of foreign trade goods has been actively used in the EU countries, which has positively affected the dynamics of traffic volumes and freight turnover of railway transport and made a significant contribution to improving the environmental situation in the EU countries [4]. At the same time, in countries from the eastern part of the continent, combined transport has not yet been sufficiently developed. One of the main reasons for the low demand for combined transport for servicing transcontinental cargo flows is associated with terminological differences in individual international and national transport agreements, standards and rules governing the peculiarities of this type of transportation.

In this regard, the *objective* of this study is to identify structural and content differences in the definitions of combined transport and to develop recommendations for their unification for further improvement and harmonisation of transport legislation in the Greater Eurasia.

METHODOLOGY

Combined transport is one of the progressive ways of implementing the so-called mixed (combining different modes of transport) cargo transportation, which is carried out mainly in interregional and international traffic [5–10].

Mixed transportation on most main routes, as a rule, has significantly higher economic, social and environmental efficiency compared to direct transportation, which is carried out by any single mode of transport. The main source of formation of these effects are the intra-system mechanisms of formation of new properties that are not inherent in individual parts of the transport system (in different modes of transport), which are manifested in lean management (interaction) of all system components: transport and logistics infrastructure, traction and rolling stock, loading, and unloading equipment, specialized devices for placing cargo, etc. [11].

The sustainability of the mixed transportation system is based on the assumption that all the participants in the supply chain are interested in making a rational choice in favour of maximising the economic and environmental benefits of each mode of transport through their integration into a single transport and logistics chain. The organizers of mixed transportation analyse advantages and disadvantages of individual modes of transport, considering specific operating conditions (they are compared according to relevant criteria: price, speed, weight and size restrictions, compliance with specific conditions, etc.) and select the most suitable mode of transport for each section of the route [12].

The selection of mixed transportation as of a separate species category is of scientific interest for development of a unified methodological basis for organisation and implementation of such transportation, and has also an important organisational, technological, and practical importance.

In mixed transportation, so-called intermodal transport units (ITU) are often used to increase the efficiency of interaction between participants in the transport and technological system. The use of ITU can significantly reduce time and money costs for performing transhipment operations when changing the mode of transport. ITU include containers, swap bodies, semitrailers, and other equipment, structurally adapted to accommodate cargo and to transport it in rolling stock of various modes of transport from the point of departure to the point of destination. At intermediate points, when changing the mode of transport, not the actual cargo is reloaded, but ITU with cargo. Mixed transportation using ITU is called intermodal transportation.

According to the UNECE Glossary «Terminology on Combined Transport» (hereinafter referred to as the Glossary), intermodal transportation also includes carriage of goods in a car, which is transported by other modes of transport on adjacent sections. Moreover, intermodal transportation with participation of road transport is a subspecific category, on the basis of which such a species as combined transport is distinguished. The main feature (difference) of combined transport from other types of intermodal transportation with participation of road transport is that most of the voyage through the territory of the EU countries falls on rail, inland waterway or sea transport, and any initial and (or) final segment of the route where road transport is used, is as short as possible.

According to UNCTAD experts, as a rule, in very rare cases, delivery of foreign trade goods is carried out in the form of a direct transportation, i.e., only by any single mode of transport [13].

In international deliveries, mixed transportation predominates, which has a much more complex structure of transportation and technological operations, uniting a larger number

of participants within the trade and logistics chain. For reasons of efficiency, it is advisable for all the participants in the supply chain, including supervisory authorities, to use a single terminology both in relation to the operations performed and in terms of information characterising the items transported, settlement, customs, and other operations. It is worth noting that regarding the data identifying the customs characteristics of cargo and goods, unity has been achieved at the international level through UN/CEFACT and the World Customs Organization. The use of a unified terminology contributes to harmonisation of customs legislation, transparency of the relevant procedures and, as a result, to an increase in the efficiency of international trade. When organising the process of collecting, rationalising and harmonising transport terms, the UNECE and UN/CEFACT model guidelines on simplification and standardisation of data for international trade can be used [14].

When carrying out a comparative analysis of the terminology of combined transport, the wording from official international and national documents related to this type of transportation was used. First of all, the study referred to the terminology contained in the documents having an interstate status: « European Agreement on Important International Combined Transport Lines and Related Installations (AGTC)» (hereinafter – «European Agreement»), « OSJD Agreement on organizational and operational aspects of combined traffic between Europe and Asia» (hereinafter – «Europe–Asia Agreement»), and Council Directive 92/106/EEC of 7 December 1992 on the establishment of common rules for certain types of combined transport of goods between Member States (hereinafter – EU Council Directive No. 92/106/EEC, Directive), as well as in the above-mentioned UNECE Glossary and interstate standards in force in individual OSJD member countries. Analysing and discussing the content of transport terms consider also theoretical and methodological developments of domestic and foreign representatives of academic science in the field of improving the terminology of mixed transportation.

The study of terms on combined transport based on the listed sources made it possible to generalise official and scientific approaches to determining the meaning and sense of the corresponding terms. This process was accompanied by a comparison of the content of terms with the technological, organisational, and legal aspects of the subject area characterised by them (by those terms). Then the differences in the content of the studied terms were identified using the methods of semantic and structural and content analysis. Further, feasibility of using distinctive characteristics to identify relevant terms was assessed. With a positive assessment, reasonable recommendations were developed for correcting existing or introducing new terms.

The structural and content characteristic of terms is considered as the definition of the composition of lexical elements of the definition and interpretation of the essential meaning attributed to them. Regarding transport terminology, the following structural components can be distinguished in the structure of the term: used modes of transport and types of rolling stock, equipment, technologies, and infrastructure facilities, taking into account their specialisation, transported objects, legal framework, supervisory procedures, features of document interchange, etc. This research puts the emphasis on structural and content characteristics of the object of combined transport, which, due to technological peculiarities of this method of transportation, has a complex component composition.

RESULTS

It was noted above that to improve the efficiency of international transportation with participation of different modes of transport, many countries of the Eurasian continent have entered into a number of multilateral agreements, which enshrine obligations of the parties to bring operational characteristics of national infrastructure facilities into compliance with uniform requirements (standards) established in the agreements. At the same time, the analysis of definitions of key terms in these Agreements revealed the presence of certain differences, primarily regarding the object of combined transport.

As a general rule, the object of transportation is cargo. In combined transport, the object is not the actual cargo, but various types of equipment (container, swap body, etc.), trailed rolling stock (semitrailer, trailer, etc.) or vehicles (universal trucks with a fixed body), which directly accommodate cargo, and changing the mode of transport implies not the cargo transhipment but the transhipment of a corresponding object with the cargo.

The «European Agreement» contains, in our opinion, an insufficiently specific definition of the term «combined transport», which in the document means carriage of goods in the same «transport unit» using several modes of transport («The term «combined transport» shall mean the transport of goods in one and the same transport unit using more than one mode of transport»). At the same time, the «European Agreement» does not comprise any additional clarification of what should be understood by the corresponding transport unit.

Some explanations of the characteristics of a «transport unit» which is the object of combined transport under the «European Agreement» are given in the Glossary «Terminology on Combined Transport». The third chapter of the Glossary, which is called exactly «Transport Units», describes various types of vehicles related to road, rail, and sea transport. However, not all types of transport units listed in this section of the Glossary can perform the function of «one and the same transport unit», as prescribed by the «European Agreement» for an object of combined transport. Considering the technological features of implementation of combined transport, the following types of transport units from the Glossary can be attributed to the objects of combined transport: articulated vehicle, road train, trailer, semitrailer, bimodal semitrailer. These types of «transport units» are intended for operation in combination with motor vehicles (trucks with a fixed body or tractor units or «motor vehicles» as described in the English version of the term in the Glossary). Moreover, the actual trucks with a body that do not use trailed rolling stock, according to the formal characteristics of the Glossary, do not belong to «transport units» and, as a result, do not form a part of the object of combined transport according to the definition of the «European Agreement». In our opinion, such a characteristic of the object is not without its drawbacks, and therefore it is desirable to specify the wording of the term «combined transport» in the «European Agreement».

The «Europe–Asia Agreement» provides a comparatively detailed description of the object of combined transport, to which the so-called cargo units are assigned, and their species are listed in parentheses: container, swap body, semitrailer, motor vehicle. It is worth noting that this structure of components of a combined transport object is complex in its composition since it contains not the same type of objects if we refer to the classification of the Glossary.

The first category comprises containers, swap bodies and semitrailers, which are referred to as so-called «intermodal transport units» (ITU) and are a kind of «cargo units». As it is known, ITU are structurally unsuitable for autonomous motion. Therefore, ITU for combined transport (loaded or empty) are located on the vehicle, and when changing the mode of transport, it is not the cargo, but the ITUs that are transhipped. At the same time, semitrailers in the Glossary simultaneously refer to both ITU and «transport units», but do not refer to «cargo units», a variety of which are ITU, which, in our opinion, introduces contradictions in the structure of the terms of this document.

The second category comprises motor vehicles, which, as noted above, include motorised trucks with a fixed body, adapted to transport various types of goods, including ITU and trailers. It is worth noting that, according to the formal characteristics from within the Europe–Asia Agreement, road trailers do not belong to the objects of combined transport, although in fact they are such and their transportation in railway wagons is provided for by the provisions of SMGS [OSJD Agreement on International Railway Freight Communications].

Summarising the results of the analysis of definitions of combined transport from the «Europe–Asia Agreement» and the «European Agreement», it is possible to highlight the main structural and content differences in the used objects of combined transport. The text of the «Europe–Asia Agreement» explicitly states that the number of objects of combined transport includes both cargo units and vehicles, which are understood as vehicles with fixed bodies. In turn, the text of the «European Agreement» mentions the «transport unit» only as the object of combined transport, while cars do not belong to the «transport unit».

It should be noted, however, that with regard to the structure and content of these terms, there are certain differences between the Glossary, the Europe–Asia Agreement and the OSJD Agreement on International Railway Freight Communications (SMGS), for example, see SMGS Article 2. It is also worth noting that the rolling stock classification system from the Glossary, the Europe–Asia Agreement and SMGS is not fully consistent with the structure of those categories contained in «OK

034-2014 (CPA 2008). All-Russian classifier of products by type of economic activity)», i.e., in its subsection 29 «Motor vehicles, trailers and semitrailers» of section C «Manufacturing products», though the latter document has a lower status in the legal hierarchy. However, a detailed study of these issues is beyond the scope of this study.

The information provided on the existing structural and content differences in the Agreements and Glossaries gives grounds to assert that the formulations of the «combined» transport object contained in them can be interpreted in a sufficiently broad sense, which does not contribute to harmonisation of the industry's legislation between the countries of the continent.

A more detailed description of the «combined transport» object is contained in the EU Council Directive, which was adopted about a year after the signing of the European Agreement and applies only to EU countries. The Directive, in contrast to the European Agreement, provides specific criteria for «combined transport», including the detailed structure of the transport object:

1) The object of transportation refers to vehicles or intermodal transport units in which cargo is actually placed during transportation:

- truck (lorry – in the English version of the term in the Directive),
- trailer, semitrailer with or without a tractor,
- removable body, container.

2) Road transport is used at the initial and (or) final section of the multimodal route.

3) The length of railway or water sections of the multimodal route exceeds 100 km in a straight line.

4) Cargo must be delivered by road to or from the nearest railway station in relation to the places of departure or destination of multimodal transportation, respectively.

5) The length of the road section to or from the sea (river) port relative to the places of departure or destination of multimodal transportation, respectively, should not exceed 150 km in a straight line.

The adoption of the EU Council Directive and implementation of state support measures for combined transport provided for in it (as a rule, refund, or reduction of the transport tax) ensured a reduction in the volume of direct (unimodal) road transportation, which led to redistribution of freight traffic to other more «environmentally friendly» modes of transport, such as rail transport, inland waterway, and sea transport. These measures have made a significant contribution to reducing emissions of harmful substances and greenhouse gases into the atmosphere, as well as reducing road accidents, noise and congestion rates. At the same time, experts note that the definition of the term «combined transport» in the Directive has not either avoided drawbacks that prevent many carriers from using economic support measures [15]. In this regard, the EU is discussing amendments to Directive 92/106/EEC. In particular, it is planned to change the procedure for calculating the length of the sections of combined transport, on which road vehicles are used. For intra-European routes, the carriage on which is regulated by the Directive, this norm, of course, should be the same for all the EU countries. However, for transcontinental supply chains, it may be more rational if each of the parties (states) to the Combined Transport

Agreements will independently establish separate criteria for combined transport, which will consider geographical features of the regions, the actual configuration and density of the transport network. At the same time, it is important that the structural and content characteristics of the combined transport object be uniform in the regulatory documents of all parties to the agreements. Otherwise, the legal regulation of the combined transportation of goods in the same type of transport or cargo units in different countries will differ, and then, perhaps, when changing the mode of transport, the cargo itself will be transhipped, and not cargo or transport units with cargo.

Terminological differences can be seen not only in legislative acts, but also in interstate standards and national rules. For example, in GOST [State Standard] 34530-2019 «Interstate standard «Railway transport. Basic concepts. Terms and definitions» (clause 2.4.19) and in GOST 34056-2017 «Interstate standard Railway transport. Rolling stock. Terms and definitions» (p. 3.3.21) the definition of the term «platform for combined transport» is given, which is understood as a flat wagon intended for transportation of containers, road trains, caravans, semitrailers and swap bodies. As we can see, the number of objects for transportation of which the corresponding platform is intended does not include actual vehicles that transport cargo in a fixed body, and not in a trailer or semitrailer. It can also be noted that in the new Russian rules for transportation of certain types of rolling stock of road transport by rail (approved by order of the Ministry of Transport of the Russian Federation in January 2020), vehicles are not included in the list of transported objects, while Appendix 3 to SMGS provides for the possibility of their transportation along with road trains, semitrailers, trailers, swap bodies, etc. These rules are not related to combined transport but considering the prospects for development of combined transport, there may be a need for a more detailed discussion of the Russian rules for transportation of vehicles in freight wagons.

Most likely, this issue will be raised after adoption of a new law on direct mixed-mode (combined) transport, the draft of which is being actively discussed in the professional community. Article 788 of the Civil Code of the Russian Federation defines the fundamentals of relations between transport organisations in implementation of direct mixed transportation carried out under a single transport document. This article states that the procedure for organising such transportation is determined by agreements between carriers of different modes of transport and is regulated by a special law on direct mixed (combined) transportation. It is noteworthy that in the title of the future law the terms «direct mixed» and «combined» transportation are used as equivalent, which, in our opinion, is not fully consistent with the meaning of the corresponding concept.

The terms «direct mixed» and «combined» transportation are varieties of a broader concept of «mixed transportation». At the same time, these terms refer to various taxonomic groups within a superspecific class: «direct mixed transportation» characterises the organisational and technological features of implementation of mixed transport under a single transport document, and «combined transport» characterises the type of non-transferred (intermodal, without transhipment) transportation performed with participation of road transport on the initial and (or) final sections of the mixed route. Accordingly, equalisation of meanings of the concepts of «direct mixed» and «combined» transportation and, as a consequence, application of the same regulatory requirements to them can complicate regulation of these types of mixed transportation. Therefore, it makes sense to discuss feasibility of changing the title of such a law in the Civil Code, excluding combined transport from it.

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

To ensure a real and effective integration of transport systems of the Eurasian continent, it is important to ensure generality of the conceptual apparatus of combined transport intended for their regulation at international and national levels, so that all market participants use equivalent formulations of professional terms. This is important to ensure harmonisation of transportation rules, shipping documents and other regulatory legal documents on combined transport in international traffic, which, in turn, will contribute to the growth of international trade, reduce the delivery time of goods, and increase their safety and, ultimately, reduce consumer costs on the Eurasian continent.

It is worth recognising the rational idea and successful practice of using the Glossary as a reference document with detailed formulations

and detailed explanations of professional terms that are used in sectoral international agreements. At the same time, it is advisable to clarify, supplement and systematise individual definitions in the Glossary. For example, the Glossary categorises semitrailers as «transport units» and at the same time they are part of ITU, which are a kind of «cargo units». In turn, trailers, which are also classified as «transport units», are not part of ITU objects. Of course, trailers have structural differences from semitrailers, but technological differences in terms of organising the transportation process with their participation are not so significant.

The Glossary, when describing the content of many terms, uses the term «Motor vehicle», which in this document does not have its own definition. The meaning of this term, of course, can be established from the context of its use in defining other concepts. For example, in the definitions of certain types of «transport units» (such as an articulated vehicle, trailer, semitrailer, road train), the concept of «motor vehicle» is used as a superspecific category. Considering the content and meaning of the definitions of these terms, «motor vehicle» is understood as the actual «car». Three important conclusions follow from this thesis.

Firstly, the definition of the term «Intermodal transport» from the Glossary uses two transport objects only: «cargo unit» and «motor vehicle». Then it turns out that if a vehicle (actually a car) does not belong to the objects of the group of «transport units», then transportation of cargo in a semitrailer, trailer and even a wagon in mixed traffic using technologies excluding transhipment (for example, cargo in a wagon is transported on a sea ferry) does not belong to the category «intermodal transport». Therefore, the content of the term «intermodal transport» in the Glossary is controversial and it seems appropriate to supplement the list of objects transported using technologies without transhipment also with «transport units». For example, trailers, road trains, articulated vehicles, wagons, and other rolling stock suitable for traffic without transhipment. If this is not done, then it will be necessary to select a new term to characterise intermodal (seamless, without transhipment) transportation with participation of «transport units».

Secondly, in the «European Agreement» only «transport units» are included in the composition of combined transport objects. Consequently, according to this document, it does not apply to

transportation without transhipment involving road vehicles and other «cargo units» such as a container. While other regulatory documents, including the «Europe–Asia Agreement», Council Directive of the EU No. 92/106/EEC, regulate transportation with such objects. Therefore, it is desirable to expand and specify the objects of combined transport in the «European Agreement» to ensure harmonisation of regulatory requirements with other documents regulating similar transportation. General recommendations for adjusting the combined transport object will be formulated using the example of the «Europe–Asia Agreement», the content of which also needs to be clarified in terms of the composition and structure of the corresponding object.

In the current version of the Europe–Asia Agreement, only one object is actually indicated as an object of combined transport: a «cargo unit», the structure of which is then presented in brackets as its four types (container, swap body, semitrailer, vehicle). The work showed that these varieties belong to different taxonomic groups: a container and a swap body are «cargo units», a semitrailer is a «transport unit», while the Glossary and SMGS mean quite different objects under the term «vehicle». At the same time, trailers were not included in the list of combined transport objects in the Europe–Asia Agreement.

In this regard, the following structure of the combined transport objects is proposed. It is logical to distinguish three structural parts in it: «cargo units», «transport units» and «road vehicles (automobiles)». The first two groups can be further characterised by specific species. For example, it is advisable to represent the group of «cargo units» as «intermodal transport units»: containers and swap bodies. The group of «transport units» can be represented by trailers, semitrailers, road trains, articulated vehicles.

Thirdly, the «Europe–Asia Agreement» has a higher legal status than interstate standards, therefore it seems appropriate to consider the issue of changing two interstate standards mentioned above (GOST 34530-2019 «Interstate standard «Railway transport. Basic concepts. Terms and definitions» (p. 2.4.19) and GOST 34056-2017 «Interstate standard «Railway transport. Rolling stock. Terms and definitions») in terms of correcting the definition of the term «platform for combined transport» considering the structure of the object of such transportation proposed above.

The above recommendations for improving transport terminology are due to objective changes in transportation technologies. It is quite natural that for several decades since the adoption of the «European Agreement» and the «Europe–Asia Agreement» innovations have appeared in the regulation and implementation of combined transport. It would be advisable to reflect them in both Agreements. To ensure synchronisation of the process of discussion and development of new rules for regulating combined transport by all parties to the Agreements, it may be easier to return to the idea of concluding a new, comprehensive Eurasian Agreement on the most important combined transport lines based on the existing Agreements. The new agreement would reflect successful accumulated experience of the parties to these Agreements, the developed proposals for improving requirements for organisation of international combined transport, as well as update the transport terminology, which is developing in the wake of rapidly changing technologies of combined, multimodal, intermodal and other types of transportation.

REFERENCES

1. Ramberg, J. International commercial transactions [*Mezhdunarodnie kommercheskie tranzaktsii*]. Transl. from English. Ed. by N. G. Vilkova. Moscow, Infotropic Media, 2011, 896 p.

2. Larin, O. N. Regulation of International Transportation: Modern Aspects. *World of Transport and Transportation*, 2019, Vol. 17, Iss. 2 (81), pp. 296–305. DOI: https://doi.org/10.30932/1992-3252-2019-17-2-296-305.

3. UNECE. Supply Chain Reference Data Model Business Requirement Specification. CEFACT/15DEC/2016. [Electronic resource]: http://www.unece.org/fileadmin/DAM/uncefact/BRS/BRS_SCRDM_v1.0.0.2.pdf. Last accessed 11.08.2020.

4. Aman, Dua; Deepankar, Sinha. Quality of multimodal freight transportation: a systematic literature review. *World Review of Intermodal Transportation Research (WRITR),* 2019, Vol. 8, Iss. 2, pp. 167–194. DOI: https://doi.org/10.1504/WRITR.2019.099136.

5. Mathisena, T. A., Hanssena, Th.-E. S. The academic literature on intermodal freight transport. *Transportation Research Procedia*, 2014, Vol. 3, pp. 611–620. DOI: https://doi. org/10.1016/j.trpro.2014.10.040.

6. Intermodal Freight Transport [electronic resource]: Institutional Aspects / Organisation for Economic Co-operation and Development. Paris: OECD Publishing, 2001. 76 p. DOI: 10.1787/9789264189126-en.

7. Floden, J. Modelling Intermodal Freight Transport. The Potential of Combined Transport in Sweden. Goteborg, BAS Publishing, 2007, 284 p.

8. Rodrigue, J.-P. The Geography of Transport Systems, 5th ed., New York, Routledge, 2020, 456 p. ISBN 978-0-367-36463-2.

9. Cavallaro, F., Sommacal, G., Božičnik, S., Klemenčič, M. Combined transport in the Alps: Reasons behind a difficult acceptance and possible solutions. *Research in Transportation Business & Management,* 2020. DOI: https://doi.org/10.1016/j.rtbm.2020.100461.

10. Vakulenko, S. P., Larin, O. N., Lyovin, S. B. Theoretical Aspects of Interaction Mechanisms in Transport Systems. *World of Transport and Transportation*, 2014, Vol. 12, Iss. 6 (55), pp. 14–27. [Electronic resource]: https://mirtr.elpub.ru/jour/article/view/169. Last accessed 11.08.2020.

11. Larin, O. N. Peculiarities of terminology for transportation with participation of several types of transport [Osobennosti terminologii po perevozkam s uchastiem neskolkikh vidov transporta]. *Intellect. Innovation. Investments*, 2020, Iss. 2, pp. 107–114. [Electronic resource]: https://elibrary.ru/item.asp?id=42926165. Last accessed 11.08.2020.

12. UNCTAD. Review of Maritime Transport 2018. UNCTAD/RMT/2018. [Electronic resource]: https://unctad.org/en/PublicationsLibrary/rmt2018_en.pdf. Last accessed 11.08.2020.

13. UNECE. Data Simplification and Standardization for International Trade. Recommendation 34. ECE/TRADE/400.

14. 2018 Report On Combined Transport in Europe, UIC-ETF, 2019, 65 p. ISBN 978-2-7461-2798-2.

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Article received 17.07.2020, revised 11.08.2020, approved 23.01.2021, accepted 26.04.2021.