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Aleksander Śładkowski *Editor*

# Transport Systems and Delivery of Cargo on East— West Routes

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# Preface

The monograph presented to the attention of the readers is devoted to the consideration of various problems connected with the delivery of goods from the regions of East and South-East Asia to Europe. It is no secret to anyone that a significant part of world production of goods is currently concentrated in these areas, and it is not surprising therefore that the export of goods from these regions is an essential part of the world economy. In particular, according to World Integrated Trade Solution (WITS)<sup>1</sup> exports of goods from the regions of East Asia and the Pacific in 2016 accounted for 26.6% of total world exports. More than half of these exported goods are delivered to the countries of Europe, the Mediterranean and the countries of Central Asia. Thus, the key issue for these countries is the transport of these goods, as well as the return of empty containers, wagons, etc.

The monograph deals with the problems of delivering goods from the point of view of transit countries or recipient countries. It is obvious that different countries have different transport problems, and they approach there in different ways. From the editor's point of view, it was important to acquaint readers with different approaches to solving transport problems in different countries. This could be solved with the involvement of transport scientists from different countries. Therefore, it is very valuable to exchange experience in solving global and regional transport problems, which is described by representatives of Italy, Slovakia, Russia, Georgia, Kazakhstan, Uzbekistan and Poland.

The monograph is structurally divided into two parts. The first part is devoted to the analysis of various problems of global logistics and regional transport, which operates in conditions of transport corridors. In particular, the impact of transport on the economies of Russia, Poland, Slovakia and Kazakhstan is considered. Nevertheless, the authors do not confine themselves to examining regional transport problems, but they consider the impact of cargo transportation on the main transcontinental corridors along the routes connecting Asia and Europe. The initiative of the Chinese leadership to create a new silk road (One Belt One Road) is

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<sup>1</sup> <https://wits.worldbank.org/CountryProfile/en/Country/WLD/Year/2016/TradeFlow/Export>.

very positively evaluated. The problems associated with the operation of accelerated container trains are considered.

The problems connected with the organization of transportations of cargoes on various routes are considered also. These problems have not only technical or technological limitations. Most often, the main difficulties are associated with the organization of such deliveries. And if a single one-time transportation can be arranged, then already regular delivery service becomes an irresistible problem. This may be due to financial, information and even political problems. For example, such problems include inconsistencies in the transport and customs legislation of the countries involved in transport processes.

The second part of the monograph is devoted to the solution of some technical and informatics problems related to the organization of transportation on the East–West routes. For example, issues related to the organization of the operation of cargo terminals in Italy and Poland were considered. At the same time, technological, technical, informatics and even financial problems that may arise in this case are considered. Of great importance for the operation of railway transport on these routes are the technical aspects associated with the difference in the standards of construction and the exploration of the railway track. At the same time, it would be advisable to use single wagons without the need to reload goods. In connection with this, the issues of interaction between the track and the rolling stock, including wheels and rails, are very significant. These issues were considered in the section prepared by Georgian scientists.

Very important are also aspects of the aerodynamics of train traffic. This is due to the fact that so far, unfortunately, not all countries located on these routes of transportation of goods can allow individual rail lines for high-speed trains. Most often, these sites are designed simultaneously for the transport of goods and passengers. On the other hand, in such areas it would be necessary to organize the carriage of goods also at higher speeds. It is quite obvious that in this case the aerodynamics of trains is of key importance. In the corresponding section, the aerodynamics of trains is considered using the example of Uzbek railways, where high-speed traffic has already appeared.

The editor of the monograph understands that the subject of the book in question is very broad and it is impossible to cover all aspects. Nevertheless, thanks to the interaction with the publishing house, it is possible to expand the field of knowledge covered by publishing a third monograph in this series. The previous two monographs<sup>2,3</sup> were also devoted to transport problems and could contribute to a more multilateral review of the achievements of modern science in the field of various modes of transport. Despite the fact that most of the authors are working in the universities, the monograph is directly aimed at solving of essential problems

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<sup>2</sup> Śladkowski A, Pamuła W (eds.) (2015) Intelligent Transportation Systems – Problems and Perspectives. Studies in Systems, Decision and Control 32. Cham, Heidelberg, New York, Dordrecht, London: Springer. 316 p. ISBN 978-3-319-19149-2.

<sup>3</sup> Śladkowski A (ed.) (2017) Rail transport—systems approach. Studies in systems, Decision and control 87. Cham: Springer. 456 p. ISBN 978-3-319-51502-1.

facing logistics and transport in different countries. Some part of the problems was solved, realizing ideas into concrete technical, economic or organizational solutions. For some problems identified ways for solutions.

The book is written primarily for professionals involved in various problems of cargo delivery on the East–West routes. Nevertheless, the authors hope that this book may be useful for manufacturers, for the technical staff of logistics companies, for managers, for students of transport specialties, as well as for a wide range of readers, who are interested in the current state of transport in different countries.

Katowice, Poland  
December, 2017

Aleksander Sładkowski

# Contents

<b>Part I Global Logistics and Regional Aspects of Cargo Delivery</b>	
<b>Sustainable Development of Transport Systems for Cargo Flows on the East-West Direction</b> . . . . . 3	
Aleksandr Rakhmangulov, Aleksander Śładkowski, Nikita Osintsev, Olesya Kopylova and Natalja Dyorina	
<b>Analysis and Development Perspective Scenarios of Transport Corridors Supporting Eurasian Trade</b> . . . . . 71	
Aleksander Śładkowski and Maria Cieśla	
<b>The Role of Railway Transport in East-West Traffic Flow Conditions of the Slovak Republic</b> . . . . . 121	
Anna Dolinayova, Lenka Cerna and Vladislav Zitricky	
<b>Transnational Value of the Republic of Kazakhstan in International Container Transportation</b> . . . . . 171	
Aleksander Śładkowski, Zhomart Abdirassilov and Amangeldy Molgazhdarov	
<b>Economic Aspects of Freight Transportation Along the East-West Routes Through the Transport and Logistics System of Kazakhstan</b> . . . . . 205	
Zhanarys Raimbekov, Bakyt Syzdykbayeva and Kunduz Sharipbekova	
<b>Part II Technical and Informatics Issues of Transport Systems</b>	
<b>Present and Future Operation of Rail Freight Terminals</b> . . . . . 233	
Marco Antognoli, Luigi Capodilupo, Cristiano Marinacci, Stefano Ricci, Luca Rizzetto and Eros Tombesi	
<b>Development of the Silesian Logistic Centres in Terms of Handling Improvement in Intermodal Transport on the East-West Routes</b> . . . . . 275	
Damian Gąska and Jerzy Margielewicz	

<b>Perfection of Technical Characteristics of the Railway Transport System Europe-Caucasus-Asia (TRACECA) . . . . .</b>	<b>303</b>
George Tumanishvili, Tamaz Natriashvili and Tengiz Nadiradze	
<b>Potential and Problems of the Development of Speed Traffic on the Railways of Uzbekistan . . . . .</b>	<b>369</b>
Saidburkhan Djabbarov, Makhamadjan Mirakhmedov and Aleksander Sładkowski	