

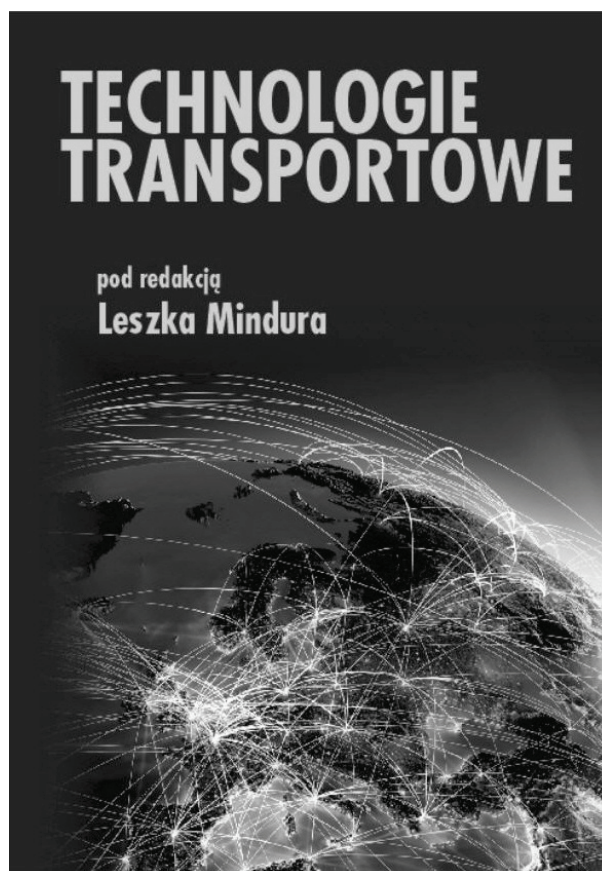
Review of the monograph "Transport Technology" edited by Leszek Mindur

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The monograph "Transport technologies" has been published this year by the Scientific Publishing House – the Institute of Exploitation Technology, the State Research Institute in Radom, under the auspices of the Transport Committee of Polish Academy of Sciences. It is the result of work of 19 authors - Members of the Team for Logistics and Transport Processes in the Transport Committee of Polish Academy of Sciences. The authors are eminent specialists in the field of transport and logistics and they have different scientific and research backgrounds. The monograph is 767 pages long and the scientific editor is full Professor Leszek Mindur PhD, author and editor of many, very important publications. M. Jacyna, K.A. Krośnicka, A. Lipińska-Słota, G. Rosa, K. Wojewódzka-Król, W. Ambroszko, A.S. Grzelakowski, I. Fechner, M. Hajdul, J. Jaźwiński, M. Mindur, T. Nowakowski, J. Perenc, R. Rolbiecki, A. Słodownik, G. Szyszko, A. Wielądek and J. Wronka are the co-authors.

Fast changes in transport and service processes and contemporary conditions of transport and logistics are very significant in economic policy of countries and in the process of creating new law regulations. Creating transport system is a complex decision process and it requires new methods that consider multi-faceted problems. The methods in question are multi-criterial and helpful in the process of taking a proper decision in the scope of transport systems development, for example in transport system modernizing and development, considering different goals of particular users. In the book the methods have universal character in order to use them in different organizational and technical conditions, regardless of who organizes a production process in question.



The monograph covers in a comprehensive way the following areas: technical, economic, exploitation, organizational, the issues of marketing, integrated supply chain, transport infrastructure, logistics centers, safety and security, ecology as well as domestic and international.

The structure of the book is clear, logical and the content encourage the Reader to become acquainted with the presented issues. It is composed of seventeen chapters. The main

information concerning logistics are preceded by an introduction, and at the end of the book there is lengthy bibliography.

Chapter 1, „General issues on production and technology” by L. Mindur, presents general issues on production process, technology and technological process and auxiliary factors. The chapter introduces a Reader to the content presented in the following chapters.

Chapter 2, " Production processes in transport", by L. Mindur and M. Hajdul, discusses the process of production, means of production, as well as the objects of transport production. An important role of human factor in the process of transport is pointed out. Also technologies of selected transport processes in business are discussed.

Chapter 3, "Technologies of production processes in transport", by L. Mindur, T. Nowakowski and W. Ambroszko, is a comprehensive piece of publication, where the structure and technology of transport processes, as well as strategies of maintaining means of transport ability are discussed. The chapter contains numerous tabular summaries and charts.

Chapter 4, "Technologies of cargo and transport processes in selected modes of transport", technologies of handling cargo in different modes of transport are presented. Each of the four sub-sections has been prepared by the authors who are experts in a separate topic. In subsection 4.1, by K. Wojewódzka-Król and R. Rolbiecki, dedicated to water transport, inland waterway, structure of assortment freight, transport specialization and unitized cargo are discussed, as well as fleet operating systems and technical progress in inland waterway transport in Poland. In subsection 4.2, by A. S. Grzelakowski and K. A. Krośnicki, technology transfer and transshipment cargo shipping is analyzed. Size and structure of generic transport by sea on a global scale, types and technical parameters of maritime transport, technologies used in the ports and their development trends are presented. In Section 4.3, by J. Jaźwiński and A. Słodownik, technologies used in cargo handling in air transport are discussed. Means of labor, freight technology, air cargo systems and corresponding business models and forecasts of demand and innovation in air cargo are presented. Section 4.4., by A. Lipińska - Słota, analyses movement of goods technology via pipeline. It analyses general characteristics of pipelines, construction, sample solutions and technology of pipeline cargo transport, ecological

aspects of this mode of transport and the prospects of its development.

Chapter 5, "Factors influencing the use of specific processes technologies - transport and transshipment" by L. Mindur, discusses influence of susceptibility to selection of transport of cargo transport technology and the level and degree of mechanization of loading works. Operational and technical characteristics of selected means of transport, as well as machines and loading facilities, with their parameters, are presented.

Chapter 6, "Determinants of technological development of transport system", by M. Jacyna, discusses some aspects of transport system development and its model. The issues of freight traffic distribution on different paths in a transport network are presented, as well as one- and multi-criteria tasks of traffic distribution in a transport network.

Chapter 7, "Combined/intermodal transport" by L. Mindur and J. Wronek, is a comprehensive presentation of the most important issues concerning functioning of a modern system of movement within the TEN-T, requiring use of different cargo handling technologies. The basic concepts and techniques used in related freight transport branches are explained, conditions of its functioning and development trends in the world, in Western Europe, are presented, with particular emphasis on the EU countries, including Poland. The importance of intermodal terminals, innovative information systems and telematics solutions for the proper functioning of the entire chain of combined / intermodal transport are presented.

Chapter 8, "Logistics centers" by L. Mindur and G. Szyszka, introduces the concept of logistics services, and the rules of rendering these services, as well as methodology of evaluation and selection of economic conditions of Integrated Logistics Centers construction and operation.

In chapter 9, "The relationship of logistics with intermodal transport" by I. Fechner, the importance of the role of logistics centers as a reinforcing agent modality logistics networks is presented. Some interesting examples from business practice are cited in the content in this section.

Chapter 10, "Problems of transport development in light of the legislation of the European Communities", by L. Mindur presents normative acts regulating the transport policy of the European Communities, as well as the desired regulation changes in this area in Poland. Also the

development of Polish transport for the period 2007-2013, using EU funds, is presented. There have been also attempts to assess Polish international freight regulations for compliance with EU regulations. Also measures of adapting Polish transport legislation to the EU requirements are discussed.

Chapter 11, "The market for transport services", by J. Perenc, discusses the nature of the freight market and its participants, and the share of individual modes of transport in the service of goods transport. The role of governments in the development of the transport market is presented, the legal regulations in the European Union in the field of fair and honest competition in market economy and the process of transport markets liberalizing is discussed.

The chapter 12, "The place and role of shipping in the domestic and international market", by L. Mindur, provides an overview of the basic problems in the field of freight forwarding. It presents the process of forwarding, shipping documents, discusses the organization and the technology of selected forwarding services and factors affecting costs, prices and tariffs of forwarding services. It also presents forwarding companies operating in Poland and selected forwarding companies are characterized.

The chapter 13, "Marketing of transport services", by L. Mindur and G. Rosa, explains the concept and the importance of transport services marketing, marketing research types and market segmentation are presented, as well as new technologies in transport as marketing trends in transport.

The chapter 14 "Integrated supply chain", by M. Mindur, presents current issues related to the functioning of modern transport and with new technologies of handling cargo. The concept of integrated supply chain, customer service issues, integrated supply chain management and partnership are discussed and as well as, quality factors in shaping the integrated supply chain, and time management.

The chapter 15 „Transport in logistics systems” by L. Mindur and G. contains information on the origins of logistics, and the development of logistics in countries of the Western Europe and Poland. Also the use of rules in the field of transport is considered. The following topics are discussed as well, among others: transport optimizing, rules of choosing the modes of transport and technologies of transport process in transport tasks, the tasks and duties of dispatcher

service in the process of transport process organizing, information and decision system in transport, meaning of cost accounting in the process of effective transport services and creating transport potential.

In the chapter 16, by A. Wielądek, the selected definitions of transport corridors are presented. They are grouped according to the criteria of defined qualities. The author divided corridors into: national, important for international trade, regional groups, continental, transcontinental, worldwide, Pan-European and railway freight corridors within the EU.

The chapter 17 „External costs of transport” by A. Wielądek, analyses the issue of social costs of transport functioning. Costs connected with accidents, noise, air pollution, climate changes, nature and landscape in urban areas are analyzed, as well as costs resulting from production, exploitation and modes of transport maintaining. Also the total external costs of transport are indicated, and the final costs, the costs of congestion, of external costs research and their internationalization.

The monograph „Transport technologies” is a very interesting and substantively updated scientific paper. Thanks to the work of the scientific editor along with the Team of the Authors the monograph is complete, providing current information, and it is a source of knowledge of transport, available for wide range of readers. In every chapter the most important problems concerning transport technologies and the conditions of their use are presented. The content is enriched by numerous statistics and charts in color.

The publication can be recommended to those, interested in transport area, including politicians, policy-makers, managers, engineers, technical staff, as well as other employees in the field of TFL. It is also recommendable to students of economy, management, engineering, transport and logistics, as well as to teachers of vocational subjects in vocational high schools, specialized in logistics and transport and to high school students, interested in the above mentioned field.

