

## LOGISTICS IN EUROPEAN TRAFFIC POLICY

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### SUMMARY

Modular concepts and logistics centers are the basic instruments for improving resource utilization in European transport system. Efficacy of the system and integration of transport services are not as advanced as they could be. Europe needs efficient logistics of freight traffic together with the combining of all aspects of traffic in order to retain and improve its competitiveness and progress in conformity with Lisbon co-modality programme and concept. Rapid development of freight traffic and congestion, accidents, noise and pollution, all the consequences of this rapid development, present economic, social, and ecological problems that have to be solved. Efficient planning, managing and control of transportation system are not yet developed enough. It is necessary to introduce modern logistics solutions in order to use less transport operations for transporting more goods.

**Key words:** Logistics, logistics centers, multimodality, ecology, traffic.

### INTRODUCTION

Market forces bring about the necessity for constant attempts of economy subjects to find adequate solutions for work rationalization, efficient fitting into economy trends of the country and the world, development of entrepreneur activities, right choices and realization of profitable business ideas. In the last couple of years, the most developed countries of Europe have started to create institutional, organizational, and economic conditions for restructuring of transport enterprises.

Development of market and market conditions, with remarkable competition (particularly on the side of the offer), has forced the enterprises to change and adjust their business policy considerably in order to produce market-acceptable products. They have nearly exhausted all the possibilities for further and significant rationalization of the production process, which has been given particular attention since the beginning of market development. Presence of the most powerful and developed world companies in the markets all over the world, i.e. globalization of all the economy trends, and especially elimination of numerous (political, business, economy)

barriers, and the development and strengthening of integration processes throughout Europe, the issue of product competition among nations' economies, even among those most developed, is constantly becoming more and more intense. It is necessary to watch closely and study all logistics services and strive to secure the optimal level of their functioning.

Optimal functioning of transportation chains as well as of the whole systems of macro and micro logistics, implies the corresponding level of development, organization and functioning of logistics centers. Logistics centers (LC) present a great opportunity not only for economies but also for their organizers. Through LCs, economy can improve its cost-efficiency and rationality of its business dealings whereas LC organizers (whether independently or as a part of a separate economy subject) can improve their financial results through the additional scope of transportation services and "new" complementary services.

## **1. COMPETITIVENESS OF EUROPEAN UNION**

When the European Commission conducted a comparative analysis of its competitive position with regard to USA and Japan in 2000, the results were disappointing. The European Union was lagging in many factors which present the driving forces of economy growth and development. Therefore they started the work on the so called Lisbon strategy which was to define the objectives and measures to increase the competitiveness of EU.

Lisbon strategy was adopted at the meeting of the Council of Europe in March, 2000, with the aim to make Europe the most dynamic and competitive world economy by 2010, able to sustain its development based on the expertise, capable of offering more numerous and better work places, and at the same time to enhance social cohesion and environment protection. Although there had been some advances by 2003 (6 million new work places since 1999, reduction of the long-term unemployment, increased number of women in the job-market, open competitiveness in the field of telecommunications, energy, railway and postal traffic, access to Internet achieved in many schools, administration and households) and many initiatives to achieve the aims set by Lisbon strategy, the European Commission in its spring Report concluded that midterm objectives had not been fulfilled (still low level of investments into expertise and network, not high enough level of competitiveness of European enterprises, low level of employment for women 55-64 years old, not adequate participation in ITC sector). In March of 2004 the European Council encouraged the start of a high-level group which should analyse the conduct of the Lisbon strategy. The co-called Kock's report conveyed a gloomy picture of the progress in the first 4 years of fulfilling the objectives of the Strategy. These disappointing find-

ings were the result of an overloaded plan, poor coordination, and opposing priorities due to the lack of political will of the member states. Indicators showed that the progress was not uniform. Therefore, the Kock's report pointed out the necessity for concrete and detailed reforms so that Lisbon objectives would not become missed targets on which the economy of Europe would be based. Any delay would mean further lagging behind USA and the economies of Asia in which economy growth was much more significant than that in EU. Therefore, the Report suggested coordinated, more concentrated and prompt activities in all the member states (including the new ones) as well as some advances towards these objectives in the countries-candidates for EU. Lisbon strategy is aimed at three key dimensions – economic, social, and sustainable-development dimension.

In the spring of 2005, the “changed Lisbon strategy” was brought out. The purpose of the new strategy is to secure faster growth and bigger employment (gross income growth of 3%) by 2010. New priority fields are set which put emphasis on expertise, investments and employment as well as on realization of social cohesion through development and employment. The commission also stated the three main objectives in the next midterm period: focusing on the set priorities through the Action plan at the level of the Union and national Action plans of the member states, mobilizing all possible support to the reforms, and preparation of more simple and clear reports.

By changing the original Lisbon strategy, the intention is to modernize European economy so as to achieve a unique social model which would suit the growing global markets, changes in technology, pressures from the surrounding region, and the age level of the population. At the same time, the strategy should have a new dimension that will encompass a wider context of development requirements that should be conducted if the future generations are to fulfill their own needs. Three fields that will encompass the programme of this strategy are stated precisely: expertise and innovations aimed at growth, Europe as a far more attractive place for investments, work and opening of new and better work places. Carrying out of the set aims of the Strategy, will enable EU to adapt to the competitive global market and secure a more competitive position with regards to other developed economies. Both the Union as a whole and each of the member states are responsible for the realization of these objectives. Therefore, it is necessary to establish a unique and open market at the level of the Union, to strengthen enterprises, and improve regulations, to secure space at the third markets for European products, to enable regulated functioning of the European Monetary Union, and make the European bodies and policy stronger.

At national levels, it is necessary to implement structural reforms and policies agreed upon and related to the “changed Lisbon strategy”, increase employment rate

and reduce the rate of unemployment, create innovations, increase the cooperation between the members, promote a social dialogue according to the principles of the social cohesion of the Union, and secure financial resources for education and training. All the reports of the Bodies of the European Union so far also point out the importance of a Unique Internal Market and express a demand that member states enhance standard of living and harmonise it with European social model.

## **2. OBJECTIVES AND WAYS OF REALIZING EUROPEAN TRANSPORTATION POLICY**

The aim of European transportation policy is to harmonise transportation between the countries and the region, with the real conditions and the tendency of social development. That means that European transportation policy is a conceptual framework, a basis for decision-making in the field of transportation development, for development activities in the region and traffic and commodity flows, i.e. for coordinating interest of all subjects in this field both at the national and international level. In other words, it has to be acceptable for a society, economy, ecology and consumers<sup>1</sup>.

EU directs transportation policy by means of directives which explicitly demand, beside the free access to the market, separation infrastructure use from operation. That is the basic sense of the European Charter of Public Subventions, now being prepared, which will help to redefine the concept of public services and public interest.

There are three main objectives of the European transportation policy:

- To plan the use of land by developing planning regulations which allow the conducting of the control of logistics activities' locations since their facilities for storing and terminals (storage space, space for arranging, etc.) require a lot of land;
- To avoid aggravation of urban living conditions if building traffic arteries through cities, or with esthetically not appropriate logistics infrastructure ;
- To enhance employment of the local population in economies in which a reduced number of the employees is becoming a reality. Logistics activities are frequently thought to present possibilities for creating new work places. In fact, the point is only in the movement of transportation and logistics jobs: geographic grouping of locations, shifting of industry jobs to the fields of services and distribution that create their own logistics teams.

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<sup>1</sup> Krsić D., Positioning of transportation services in the logistics system on the X traffic corridor, PhD dissertation, Subotica, 2000.

- In order to achieve it, the European transportation policy should develop traffic network based on standard criteria, with a special emphasis on compatibility. While it is being done some points should be taken care of:
- Infrastructure planning is based on multimodal principle;
- Master plan should be done in order to identify logistics centers which will be a part of the European transportation network;
- Trans-Europe infrastructure network should take into account locations of the more important logistics centers;
- It is necessary to undertake a joint investigation in a larger number of common regions for development of the European network (technical equipment, organization, requirements to be fulfilled by different traffic modalities, information and communication structures);
- Formation of a joint fund within the framework of the European common policy with the purpose to improve and realize some projects; beside that, some guidelines should be made for the improvement of logistics centers at national levels so that all regions in Europe can become integrated in the network under the same conditions.

These recommendations of the European Union<sup>2</sup> which refer to the polarization of Europe logistics centers present a great challenge. However, they offer European economy a valuable possibility to adopt a more offensive approach to international competition.

In order to achieve a better work distribution between European transportation centers, it is mandatory that their logistics centers be connected by efficient infrastructure so as to create a comprehensive network. The only way to develop transportation functions is to establish logistics centers' knots capable of processing large quantities of freight, and of grouping transportation flows between centers. In the past, the development of logistics centers used to be limited to individual organizations or groups of organizations, regional trade associations and the likes. In 1994, the plans for trans-Europe network were brought within the framework of the EU' transportation policy. They present the starting point for the infrastructure development measures that will have to be carried out before the logistics centers are to be connected.

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<sup>2</sup> Commission of the European Communities, *Freight Logistics in Europe key to sustainable mobility*, Brussels, 2006.

The policy on logistics development is carried out by means of one or two types of investments:

- Kinetic investments that aim to improve the flow of merchandise, and secure transit, reloading and processing capacities, etc. Their aim is to make transportation flows faster, regulated and controlled so as to secure their continuity and fluidity. Service quality, infrastructure and location of these terminals (their area of interest) are of the essential importance. This category includes ports, multimodal terminals, knots of operators for express deliveries, etc.;
- Investments into logistics that aim to secure opportunities for logistics services with additional value, which are an integral part of product marketing (final processing, storing, supply management, re-packing, labelling, grouping, order processing, etc.). Logistics zones are a characteristic of this type of development.

In addition, logistics is now considered to be the most important factor in choosing locations for new activities, which, in turn, largely depend on logistics services and facilities. In order to attract those who offer logistics services (direct employment) and potential users (induced employment), the experts working on the development, have planned logistics zones as a specialized fan of industry assets.

Four main criteria influence the location choice for LC<sup>3</sup>:

a) Economic

If there is a well defined market, the best location is in its very center. In the given area (group of regions, countries, Europe) there are different rules for fixing the best location. There are some models – they make correlations between production and GDP, and consumption in correlation with population, particularly taking into account ports (entrance ways) because they are the biggest freight processors.

b) Geographic

The idea of a ‘central location’ is definitely important, but is reasonable only in connection with the infrastructure that supplies the given area. Knots are primarily the spots for logistics zones, having in mind that they secure access to a wider area. In connection with that, it should be noted that time rather than distance, is becoming more and more important from the aspect of “accessibility”.

c) Services

Transportation and logistics services require close connections with all professions involved in physical flow of commodities, but also with inland revenue, telecommunications, educational services, etc. The existence of these services is an undisputable factor, and the one that attracts operators.

<sup>3</sup> Boudin S., International document CRET – LOG – IONCITION, October 1993.

#### d) Space hierarchies

They exist between operations that encompass Europe, regions, or they are local in character. Germany has developed a concept GVZ (Güterverkehrszentrum). Italy has developed the network Interporti, starting with the primary and then secondary complexes. Spain has a development plan now, but France, a pioneer in the field, multiplies these initiatives to the point of so many logistics zones that it starts to undermine the credibility of the whole concept.

Logistics zones are projected in such a manner that they encompass logistics locations of organizations, larger transport terminals, in order to secure the best economic environment for them. To fulfill it, all kinds of services for drivers should be developed in each zone (information, catering services, banks, facilities for rest, travel agencies), for their vehicles, parking space, repair services, customs, administration, communication center, etc. Before that, transportation facilities should have the infrastructure that connects this zone with main transportation lines, including the possibility of multimodal transfer, port or airport within the zone, or in the vicinity. Cooperative approaches and networks are now organized, such as:

- EUROMETROPOLIS, the "umbrella" of networks for big European cities, except the capitals, which deals with the coordination of logistics zones in its member cities;
- Sogaris and Garonor, with well organized facilities in the south and north of Paris, have already been working on several locations;
- Europlatforms Consortium which worked on 24 locations till 1994 since it had been established in 1981. It has spread to 40 locations.

This development from "one zone" to the concept of a network is definitely getting more advantage due to the tendency of private operators to form their own networks.

### 3. PAN-EUROPE TRANSPORTATION CORRIDORS

New transportation policy and strategy in the EU have simultaneously experienced noticeable progress related to the intensive development of inter-modality in the broader European area. Inter-modality implies finding, pointing out, and connecting the best qualities of a certain transportation mode, with the purpose to realize very good quality services (which other modes cannot supply independently), with as little negative environment impact as possible.

The European Union has chosen the Pan-Europe transportation policy which basic objective is to create the trans-European network for high-speed lines. The axis of these networks should be multimodal transportation corridors, transnational

in character, with the purpose to provide transportation and economy integration in which multimodal transport becomes an important component.

At the Pan-European transportation conference in 1994 in Crete, development priorities of nine main transportation corridors in Eastern Europe were established. Their developments (modernization of the existing railway lines and building of some new lines sections) were to be completed by 2010. At the Pan-European transportation conference in Helsinki, in July 1997, pan-European corridors were reconsidered, and corridor X was added (the Balkan corridor), and the existing ones were supplemented.

The picture shows pan-European transportation corridors.

Pan-European transportation corridors



- I Helsinki – Tallinn – Riga - Kaunas – Warsaw (railway section Rail Baltica) and Riga – Kaliningrad – Gdansk
  - II Berlin – Warsaw – Minsk – Moscow - N. Novgorod
  - III Berlin – Dresden – Wrocław – Lavov – Kiev
  - IV Berlin/Nuremberg – Prague – Budapest – Constance /Thessaloniki/ Istanbul
- There is a ferryboat connection across the Danube. The bridge is planned if the traffic should demand it.

- V Venice – Trieste/ Kopar/ Ljubljana – Budapest – Uőgorad – Lavov  
 Branch A – Bratislava – Źilina – Koőice – Uőgorad  
 Branch B – Rijeka – Zagreb – Budapest  
 Branch C – Ploče – Sarajevo – Osijek – Budapest
- VI Gdansk – Grudzionzd/ Warsaw – Katowice – Uőgorad (Corridor V branch A)  
 Branch Katowice over Ostrave for Corridor IV
- VII The Danube
- VIII Dures – Tirana – Skoplje – Sofija – Varna
- IX Helsinki – St. Petersburg – Moscow/ Pskow – Kiev – Bucharest – Dimitrovgrad – Alexandroupolis  
 Branch A – Ljibavaska – Odessa  
 Branch B – Kiev – Minsk – Vilnius – Kaunas – Klajpeda/Kaliningrad
- X Salzburg – Ljubljana – Zagreb – Belgrade – Niő – Skoplje – Veles – Thessaloniki  
 Branch A – Graz – Maribor – Zagreb  
 Branch B – Budapest – Novi Sad – Belgrade  
 Branch C – Niő – Sofia – to Corridor IV for Istanbul  
 Branch D – Veles – Bitola – Florina – via Egnati

## CONCLUSIONS

For several years now, European transportation policy has been characterized by liberalization and harmonization. They have given the transportation system the shape it now has. Globalization and the concept of an expanded Europe set further challenges. Rapid growth of freight transportation induced by some economy decisions, contributes towards development and employment but, at the same time, causes congestions, noise, accidents, pollution, greater dependency upon imported fossil fuels and energy loss. Infrastructure resources are limited and every failure in the chain of energy supplying obligatory has a negative impact on the EU economy. Unless some appropriate steps are taken the situation will get worse, and so will the European competitiveness and the surrounding in which we are all living.

In order to overcome the problems, European transport system must be optimized with the help of advanced logistics solutions. Logistics can improve efficacy of both individual aspects of transportation and of their combinations. The result is that less transportation units, such as vehicles, freight cars, or ships, would transport more freight. The impact on the environment will be reduced in that way. Railways and river transport should be modernized. Air traffic should become more closely integrated into the system. The positive development of the shortsea transport should be made faster, whereas ocean transport and its connections to the land should be strengthened.

The shift to the transport modes that do not pollute environment should be realized wherever it is appropriate, specially at some long relations, in urban areas, and the lines with too much traffic. All modes of transport must be less harmful to the environment, more safe, and with less consumption of energy. Finally, intermodality, that is, efficient consumption of different modes of traffic either individually or in combinations will lead to optimal and sustainable resources' consumption.

Protection of the environment, as a consumer's service, should be the central point in political consideration of logistics used for freight transport. In that respect, it is necessary that the strategy of the European Commission for Combined Transport:

- Finds ways of projecting instruments such as tax on the use of electric energy consumed for different transport modes, so that the logistics solution which would mostly contribute to environment protection, can reduce their costs;
- Find ways to enhance the approach "storing and supplies managing" instead of the method "at the last moment" ( in that way the distribution of small scale deliveries that consume a lot of electric power would be limited);
- Tries to reward companies that have adopted the use of those logistics solutions that contribute to environment protection more than other solutions;
- Tries to devise methodologies and indicators that relate to the output of different logistics solutions with regards to environment protection

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