

## **REALIZATION OF LOGISTIC CENTRES, SUPPORT OF INTERMODAL TRANSPORT**

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**Abstract:** Modelling LC/LP and their setting into the casual environment is not an easy task. It is necessary to count with political aspects, regional possibilities. Above all it is necessary to consider factors such as: social, economical environment, competitive and geographical environment, and at last but not at least accessibility of material and energy. This paper shows our results in this research field.

**Keywords:** logistic centres, intermodal transport.

### **Introduction**

Present time is developed very fast and herewith demands of customers increase for wishes and things. Main attention of this duration from view of realization enterprises intentions and at the same time satisfaction demands from view customers in agreement with abilities in one place is become build-up and operation of logistic centres (LC) and logistic parks (LP). According as I go from basic suppose [1.], that task of logistics is delivered correct assortment of products and services in correct quantity, at correct place, in correct time, in correct quality, in correct dust-jacket and in correct price, so herewith at the same time I define basis logistical of system.

Its main components are delivery, production and distribution. This „triangle“ and herewith also fruitfulness some companies talk about quality, about charges and about income. In topicality to those attributes is connected fourth one, but very important – flexibility.

### **Logistical Centres, Terminals of Combined Transport (TCT)**

At the moment in Slovakia it is impossible to talk about some nets of products (logistical) intermodal centres. Logistical centres that are built here or are being built, belong to private companies and they do only as distributive centres for delivery individual branches, shops etc. These centres are built system-less from statewide view, by demands and conditions centre owner. Mostly in them they aren't connect several types of transit and they mostly concentrate on road transport.

Intermodal transit sheds (basically in Slovakia only containers transit sheds) mostly belong to private companies. In former times authentic net of transit sheds, which was built from state financial facilities, was privatised or was rented. There was suppose, that entry of private investor and capital will be provided development and modernizing these transit sheds in European level and they will be built by standards agreement AGTC (European Agreement on Important International Combined Transport Lines and Related Installations).

But reality was such, that development of transit sheds was stagnated, nay some of them was begun deteriorate, till they were closed completely, in some case were aborted (Ružomberok, Čierna nad Tisou).

So, in Slovakia we don't have any logistical centre in full meaning concept. There are only mono-modal distributive centres or container transit sheds, which don't provide other logistic services. In addition, parts of container transit sheds are underhand. They serve only for owners, which they built them mostly in self-expense in place of concern and they adjusted them to own conditions. The building such underhand, private transit sheds is called forth already absent of modern public logistical centres, which would offer quality services in European level, wide gamut of customers [2].

In to the future in Slovakia the terminal infrastructure of combined transport doesn't serve for covering transit streams. In topicality in SR there are 8 container transit sheds from that only one – TCT fulfil conditions of agreement AGTC. Moreover, they are technically and technological out of date. Purpose of transport policy is also cut down incidence on environment, what solve already intermodal transport, which enable to use all advantages of railway, water and road transport.

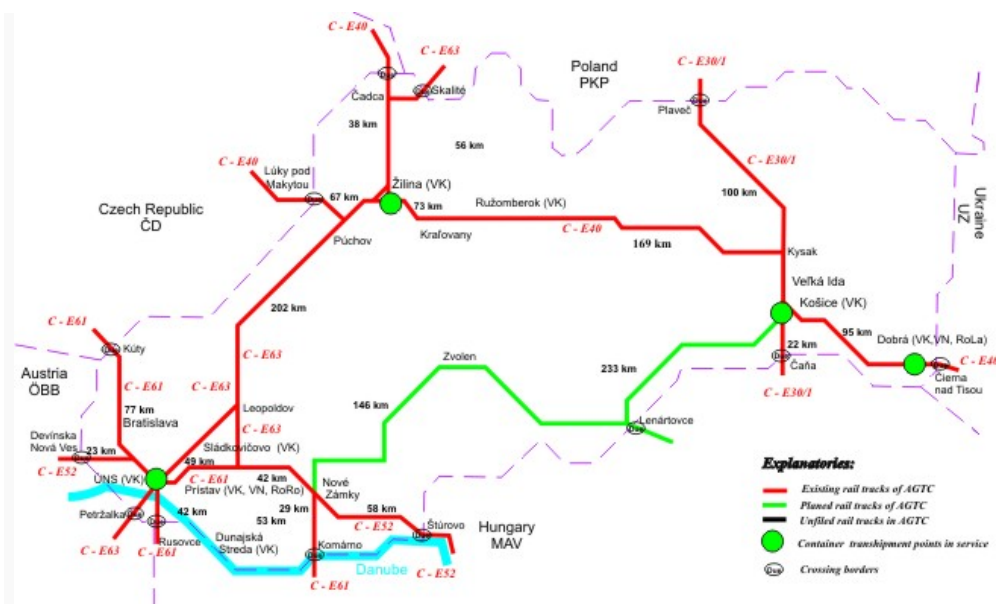


Figure 1. The infrastructure of combined transport in Slovakia, all facilities also except of net AGTC [5.]

## Intermodal Transport

The target is support of intermodal transport, in order to remove congestion on transport roads and cut down incidence on environment. One from disadvantage railways is compared to road and water transport, that tariff for km is considerably upper what has impact also on transportation of products (see data sheet 1). By revenue from Department for regulation of railways value consist of three quires for train passenger transport as well as goods transportation. Queries, which belong here: fee for net access, for train kilometres and gross train weight. By actual cost calculations for transportation of 1 tonne of product constitute approx. 2,5-times more than for transport transportation despite of price increase for transport road from January the 1<sup>st</sup> 2010 (implementation of road fee). From the January

2011 by law No. 513/2009 about railway and about change and completing some acts legislative will be valid a new accounting system for using railway net, that will be dedicated to basis variable costs of infrastructure manager, that they began proximately with train operation. Consequence it should be tariff rate reduction for using transport road. Also EC submitted proposal for payment infrastructure for all kind of transport roads in order to added in price also charges for external costs (accidents, nature soiling, air pollution and ability contribute to financing of infrastructure [2.].

Table 1. Share of Individual Kinds of Transport in Slovak Republic

	2000	2005	2006	2007	2008	2009
Total Amount of Transport Commodities (thousands of tons)	244 686	246 242	235 584	232 915	248 895	202 943
of this according to kind of transport						
Railway Transport	54 177	49 310	52 449	51 813	47 910	37 603
Road Transport	188 901	195 405	181 422	179 296	199 218	163 148
Inland Waterway Transport	1 661	1 607	1 526	1 713	1 806	1 767
Air Transport	1,280	0,697	0,506	0,082	0,194	0,312

According to the Statistical Office of the Slovak Republic

## Creation of the LC

The task of LC is integration of transportation and delivery firms, service providers, customs duties etc. into one place. It is possible to characterize LC as extensive transportation – production equipment with individually acting companies.

The incorporation into LC is for middle-sized companies great opportunity how to enter a market. The LC has to connect minimum 2 types of transportation to be able to provide conditions for creation of combined transport; it means the part of LC should be also a CT terminal. The LC decreases a load of transportation infrastructure by selection of proper transportation means. It also decreases impact to environment effectively. The LC thus creates a natural transportation node and by this way it is also a part of transportation infrastructure of a state at the same time. It is necessary to emphasize that these benefits are all-society and with multiplication character. Benefits of such an element in infrastructure can be strategic in many cases. But building of LC is highly expensive investment. Therefore they should be supported by a state in many countries, by legal form or indirectly.

In Slovakia there are not enough experiences with building of especially big LC-s yet. They have built several objects with the name LC in Slovakia but they do not fulfil by far conditions and requirements for such a subject. The certain positive fact for Slovakia is distribution of terminals of combined transportation and their relatively good technical and technological background. But we have to remark that these terminals were built or their building started during different economic and political circumstances and therefore it is possible that they do not fulfil current requirements regarding accessories or distribution.

Because of its area, number of inhabitants, economic power and also state of necessary infrastructure, Slovakia has to consider building of such subjects very carefully to fulfil ambition of the state and not to build „dead buildings“.

It is possible to summarize creation of LC into four phases:

- Creation of basic conception,
- Phase of project preparation,
- Building of LC,
- Operation of LC.

*Creation of basic conception of LC:* This phase is very important because decision „to build or not to build“ LC must be made. In this phase we have to answer questions regarding impact to regional economy, employment, environment, culture and comfort of living in surrounding houses or housing estates (if there are any in the neighbourhood) and also political impact.

The analysis has to contain following:

1. determination of specific location,
2. limitations or possibilities resulting from ground plan,
3. parcels (land) settlement,
4. location attractiveness for potential users,
5. conditions and requirements,
6. analysis of transportation infrastructure together with assumptions of possibilities and capacity of individual types of transportation,
7. functional content of LC,
8. impact to environment.

This analysis should contribute to final evaluation of project acceptability.

*Project preparation:* The basis of this phase is feasibility study of project followed by project preparation, which should solve:

- location of building elements,
- technological requirements,
- internal infrastructure,
- connection to external infrastructure.

This should be synchronized with the claims posed on LC and also on ground plan. It is further necessary to: calculate the building costs of LC – to make an economical analysis of expenses and revenues. In this part must be clear both the way of financing or co-financing, and future ownership regime. On building-up the LC should in actual economical situation in Slovakia participate:

1. state, either as a direct attorney or indirectly, using state transportation companies and Self-Governing regions,
2. villages – with non-monetary inputs (for example lands, infrastructure),
3. foreign investors,
4. financial institutions operating in Slovakia and also foreign banks,
5. operators of combined transportation, delivery and logistical companies.

Input of the state has another meaning – it should be understood as a mean to reaching an economical progress of the state. Also as an important project for decreasing the unemployment, but it also has an influence on development of an educational system and effective demand of inhabitants of concrete region.

*Building of LC:* This must be realized according to approved building project in certain linking steps:

- building-up a transport infrastructure, not just internal, but also connection to the external network – in first phase minimally connection to the actual transport network,
- building-up engineering networks,
- building-up new buildings and halls,
- delivery and building-in technologies.

Very important point of this phase – introductory point, is the decision of the organizer of the building. His task will be to solve not just the constructional questions, but also questions of finances and administrative. This organizer can be company or consortium of subjects, who are participating for example on financing.

*Operation of LC:* This phase should already start in the process of building, but realize not till the building is completed. That means when all building parts are finished and technological part is placed.

This phase involves also so-called „test operation“, in which technologies and proper function of transport connection will be checked up. Here are being specified some details, such as:

- realization of employees schooling,
- installation of manipulating apparatuses,
- checking the organization of operating,
- examining the technology of work.

This phase fully begins by establishing the company that will control the operation of LC during its durability [3.].

## Conclusion

Modelling LC/LP and their setting into the casual environment is not an easy task. It is necessary to count with political aspects, regional possibilities. Above all it is necessary to consider factors such as: social, economical environment, competitive and geographical environment, and at last but not at least accessibility of material and energy. In conclusion it is necessary to consider risks, because not neglectable financial means will be put into the realization of this plan.

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