

OBECNA POZYCJA I PERSPEKTYWY ZINTEGROWANEGO SYSTEMU TRANSPORTU W REPUBLICE SŁOWACKIEJ

THE CURRENT POSITION AND PERSPECTIVES OF THE INTEGRATED TRANSPORT SYSTEMS IN SLOVAK REPUBLIC

W artykule zaprezentowano aktualny stan zintegrowanego systemu transportu na terenie Republiki Słowackiej. Zaprezentowano także analizę podstaw prawnych, rodzaje oraz zalety i wady tego systemu transportu. Artykuł prezentuje także podstawowe warunki techniczne, jakie muszą być spełnione i ustalone w Republice Słowackiej aby w miastach i lokalnych regionach wzrosła liczba zintegrowanych systemów transportowych.

Słowa kluczowe: Transport publiczny, zintegrowany system transportu.

The paper deals with current state of integrated transport systems in the Slovak Republic (SR). There is an analysis of legislative framework of transport system (ITS), description of ITS attributes, advantages and disadvantages of ITS operating in SR in the paper. The paper also points out underlying technical conditions necessary for existence of ITS, which should be established in SR in order to increase the number of ITS projects in cities and regions in SR.

Keywords: Public transport, Integrated transport systems.

1. Introduction

There is necessity to take different look at state, region and city transport policy due to factors such as expanding transport requirements, increasing number of congestions, negative impacts on quality of life. This new approach, with goal to meet requirements of sustainable transport and functional usage of both city and regional area, must clearly accept elimination of negative factors, such as pollution of air, increasing risk of transport accidents with their negative impacts, waste of time public transport etc.

Although there is broad array of tools for state interventions in transport market with aim to eliminate mentioned negative impacts. According to the project "TRANSPLUS" [7] the following three types of integrated transport and regional politics are especially effective:

- upgrading of infrastructures for short distances,
- reducing of automobile transport,
- improving of public passenger transport services.

Upgrading of infrastructures for short distances

This policy is focused on development of localities with possibilities for moving of pedestrians and cyclists with no necessity to use cars, and thus encouraging of using alternative transport systems. It covers building of hierarchical whole-city cyclic network in an attractive environment connecting important localities and social facilities. It requires both building of an information system providing enough information on lines connecting various parts of the city dedicated to pedestrians and cyclists and establishing of conditions respecting pedestrians and cyclists.

Reducing of automobile transport

This policy is focused on limiting of undesired entrances of cars into urban areas. It covers reducing of negative impacts on noise, air quality, safety and aesthetic of cities, parking slots and regulation of entrances of private cars into public areas.

Improving of public transport services

This policy is focused on new structure of settlements oriented on using public transport. In other words it is oriented on concentration of urban growth and sub-centres around nodes and public transport corridors and renovation of railway stations and their surroundings. Improving of public transport services should increase availability of public transport in existing settlements by either renovation or expanding lines for light trains and trams or continual development of systems of tram and bus lines in smaller cities. Important and effective solution is integration of different transport modes with aim of providing public transport services of high quality, comfort, speed and frequency, in other words development of integrated transport systems [8].

2. Integrated transport system and legislative framework in Slovak Republic

Integrated transport system is a perspective solution in regional transportation. Responsibility of regional governments for securing regional transportation is not directly imposed by law. It is indirectly imposed by the law on local government [1], in which there is specified that a local government is responsible for general development of particular region and needs of its inhabitants by executing of the following activities:

- forming and executing of programme of economic, social and cultural development of given region of local government,
- undertaking of planning activities relating to region,
- development of preconditions for optimal arrangement of relations among settlements and other elements of given region.

There have been delegated some responsibilities from state bodies onto local governments in SR. Among others those relating to transport are the following ones [2]:

- relating to railways and trams:
 - approving of propositions of schedules and its modifi-

cations before its publishing,

- executing of delegated state competencies relating to trams.
- relating to road transport:
 - Granting and cancelling of transport licences in interstate regular bus transport,
 - Approving of schedules in interstate regular bus transport,
 - Signing of agreements on public transport in general interest with operators and paying off losses resulting from its operation (by signing of the agreement the operator commits to meet obligations to public).

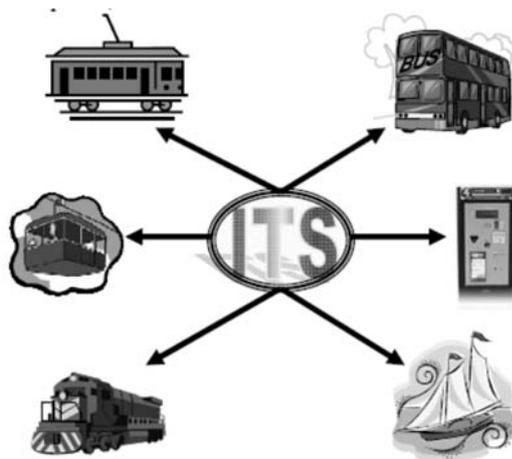


Fig. 1. The range of the integrated transport system

Different range of responsibilities in railway and road transport evokes that public transport in SR is regulated in each mode by specific legislative framework [4]. There is a specific law for road public transport and specific law for railway public transport. It means that a transport operator providing transport services in both railway and road transport has to follow at least 2 acts: Railway Act and Act on road transport.

These two Acts cover the issue of integrated transport system, but there is no single act dedicated to all aspects of providing transport services in an integrated transport system.

3. Integrated transport systems in the Slovak Republic

Integrated transport system is a system of transport operation designed for a specific area by public transport consists of various transport modes or covers lines of several operators within which passengers are transported according to unified both transport and tariff conditions.

ITS from the operator point of view:

In ITS transport is provided by various transport means: railways, tube, trams, buses, cableways and boats. Integration may also cover bikes and cars through Park & Ride or Bike & Ride. Transport services in ITS can provide various operators. However, schedules for particular lines within ITS should be optimised regardless which operator operates a given line. Degree and way of integration differs in ITS projects.

We can say that current urban transport systems and regional and domestic passenger railway transport have character-

istics of ITS. However, ITS is usually called transport systems either developed by extending existing system of public passenger transport into remote areas or by integration of more traditional transport systems in particular cities (urban transport, railway transport, intercity transport).

Currently, there are zone and sectional tariffs usually applied in ITS. It means that the covered area is divided into sections. If the area is divided into circles then there is agglomeration in the middle. If the area consists of more agglomerations then they made zones and among zones there is inter-zone transport.

ITS from a customer point of view:

From a customer point of view an integrated transport system means integration of schedules, transport conditions and tariffs. Customers are allowed to travel on single ticket and on the same conditions by different modes of transport. ITS is mostly developed in agglomeration with aim to increase inhabitants' quality of life and offer them frequent, high quality, speedy and comfortable transport.

Results of increasing of quality of life are the following ones [9]:

- decreasing of level of noise,
- decreasing of amount of air pollutants,
- decreasing of costs of building new infrastructure for automobiles,
- increasing of safety,
- increasing of travel comfort.

Essential conditions for establishing of ITS:

- preferences for ITS transport vehicles over automobiles,
- jointly used and shared information system for all transport modes,
- shuttle transport services and timetables (regular and easily remembered intervals of arrivals and departures),
- unified tariffs,
- railway transport is the bone of ITS complemented by bus transport (parallel railway and bus transport lines are eliminated).

There have been operated the following integrated transport systems in the Slovak republic:

- Integrated transport system of Bratislava "BID",
- Regional integrated transport system of Žilina "ŽRIDS",
- Integrated transport system of Košice "KIDS".

These transport systems are located in the three biggest cities (according to number of inhabitants): Bratislava, Košice, Žilina.

Integrated transport system of Bratislava :

The first attempt to develop an integrated transport system in Bratislava was undertaken in 2001. It allowed passengers to buy a ticket for tram with a coupon for railway and bus transport. ITS is operated through cooperation of railway operator Železničná spoločnosť Slovensko, public passenger road operator Slovenská autobusová doprava providing both local and interstate transport services, and operator Dopravný podnik Bratislava, providing public urban transport services. At present, BID covers urban, intercity, and local public passenger road transport and passenger railway transport in Bratislava. It allows traveling on single ticket of operator Dopravný podnik Bratislava bought with a coupon of BID. BID has proved to

be an effective solution and now Bratislava tries to eliminate parallel lines. Since March 2008 the possibility of travelling on single ticket will become reality. In 2009 BID is planning to expand to Trnava district, to the Czech and Austrian republic, and integrate dispatchers of engaged operators.

Regional integrated transport system of Žilina:

In 2003 there started a cooperation among municipalities Žilina and Rajec and a railway operator Železničná spoločnosť Slovensko and urban public passenger operator Dopravný podnik Žilina with aim to develop ITS in the city Žilina. ITS in Žilina is based on integration of railway transport on the line Žilina – Rajec operated by Železničná spoločnosť Slovensko and urban public passenger transport operated by Dopravný podnik Žilina. It is divided into 5 tariff zones with complete integration of all tariff points on the line Žilina-Rajec.

Integrated transport system of Košice:

A pilot operation of the ITS in Košice started in 1999. At the beginning it offered passengers of urban public passenger operator Dopravný podnik Košice possibility to travel by train on single ticket. In 2000 operator of local and interstate road public transport services Slovenská autobusová doprava joined the ITS. Since 2004 the ITS has not been in operation though it had not been officially cancelled. The main reason for stopping operation was inability of engaged operators to reach agreement on financial responsibility and methodology of fare collecting. Now, the idea of ITS is hot again. Since 2005 there has been transport system EMBASE operated. It allows students of selected universities owning students cards to use inte-

grated transport services of engaged operators. Students of the following universities are eligible ones: Technical University of Košice, University of Pavol Jozef Šafarik in Košice, University veterinary medicine in Košice and University of Prešov. The following operators are engaged: Slovenská autobusová doprava Košice, Slovenská autobusová doprava Prešov, Slovenská autobusová doprava Humenné, Slovenská autobusová doprava Michalovce, Dopravný podnik Košice, Dopravný podnik Prešov and BUS KARPATY Stará Ľubovňa.

4. Conclusion

The key role of public passenger transport is to secure sufficient possibilities for mobility in public interest by providing transport services of high quality regardless of transport mode. With no regard of who is current operator.

Integration of urban, local, regional and inter-city transport should make a basis for providing public passenger transport in public interest. Such integration could be developed through:

- unification of conditions for organisation,
- simplifying of flows of public finance assigned for its development,
- passing a law complexly covering the issue of integrated transport systems.

Undoubtedly, if above mentioned conditions are established, development and implementation of ITS will be supposed to be an ideal solution for transportation in big cities in SR with help of public finance necessary for providing public passenger transport services in public interest.

5. References:

- [1] Act no. 302/2001 Statute about upper territorial units' autonomy, as amended by later directives).
- [2] Act no. 416/2001 about delegation of some activities of executive agencies to municipalities and upper territorial units, as amended by later directives).
- [3] Astrid Jakob A., Craig J. L., Fisher G.: *Transport cost analysis: a case study of the total costs of private and public transport in Auckland*. Environmental Science & Policy. No. 9/2006, 55 – 66.
- [4] Hreusík, S.: *Contribution within the frame of project APVT-99-021304*, www.busportal.cz
- [5] Hull A: *Integrated transport planning in the UK: From concept to reality*. Journal of Transport Geography. No 13/2005, 318-328.
- [6] Project VEGA no. 1/0471/08 Marketing communication of company of services – integrated model of company communication and communication with customer.
- [7] TRANSPLUS, kontrakt EVK4 CT-1999-00009, final report, public document, www.transplus.net
- [8] Tsamboulas D., Vrenken H, Lekka A. M.: *Assessment of a transport policy potential for intermodal mode shift on a European scale*. Transportation research, Part ANo. 41/2007, 715-733.
- [9] Valášková, M.: *Marketing activities of public transport companies – participants of IDS, dissertation thesis*, Faculty PEDAS, University of Žilina, 2006.

Doc. Ing. Anna KRIŽANOVÁ, PhD.

University of Žilina, Faculty of Operation and Economics of Transport and Communications
Department of Economics
Univerzitná 1, 010 26 Žilina, Slovakia
e-mail: anna.krizanova@fpedas.uniza.sk
