

Role of the state in developing the operation framework for intermodal transport-logistics services – case Hungary

Zoltan Bokor, PhD¹

Abstract

Developing and operating freight transport and logistics services are the tasks mainly of market actors. Intermodal transport-logistics services, however, need to be supported by public actions and sources. It can be justified e.g. by the current – not social cost based – pricing systems giving incorrect signals to modal choices, which makes intermodal supply chains less competitive. The Hungarian transport policy recognised this unsustainable situation and created the basic framework for the state intervention. Some measures have already been taken however, their results are heterogeneous. That's why additional conceptions and then concrete actions are to be realised after revising the former tools. This paper aims to evaluate the experiences so far, inform about the short term plans and identify the long term strategic development directions of intermodality in the case of Hungary.

1. General evaluation of the Hungarian transport-logistics system

The main features of Hungarian transport infrastructure network can be summarised as follows (on the basis of HMET, 2006c):

- public road network:²
 - motorways: 764 km;
 - express roads: 126 km;
 - main roads: 6759 km;
 - minor roads: 23267 km;
- railway network:
 - total length: 7727 km;
 - double-track railways: 1146 km (14,8%);
 - electrified rail tracks: 2580 km (33,4%);
- inland waterways:
 - total length of navigable rivers, canals and lakes: 1439 km;
 - 6 national public ports, of which 5 at the river Danube;
 - several regional and local ports;
- airports:
 - 1 international hub airport;
 - 2 main regional airport;
 - several small airports;
- pipelines:
 - total length: 2047 km.

The density of the Hungarian transport network generally corresponds to the EU average but it falls behind in terms of quality parameters (e.g. lower axle load in main roads and rail

¹ Associate professor and head of Department for Transport Economics at Budapest University of Technology and Economics. Contributor to Hungarian transport-logistics development strategies and programmes.

² State roads only, without municipality roads.

tracks, lower ratio of double and electrified tracks, unreliable navigability of the Danube). That's why the planned investments aim at eliminating these shortcomings as far and as soon as possible (HMET, 2006a).

Comparing the modal split values – for freight transport – of the EU-25 and Hungary (figure 1) we can conclude that the Hungarian market situation is more favourable from the point of sustainability: it can be characterised by relatively higher share of rail transport and lower share of road transport.

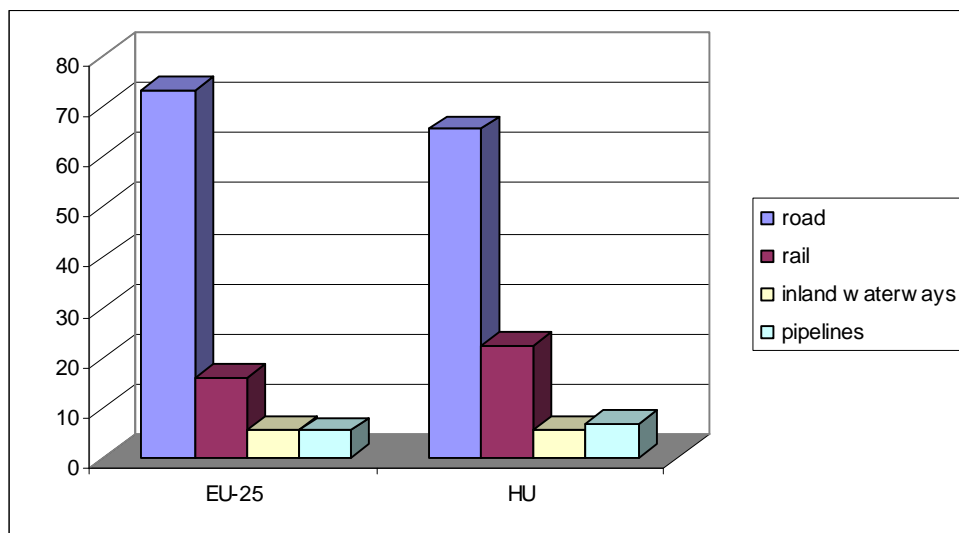


Figure 1: Modal split for inland freight transport modes, 2005 (%) (source: EU Comm., 2006c)

This situation, however, may be worsened when the current trends continue in the future (figure 2): road transport has been more and more dominant in the freight transport market while the performance of other modes – mainly of rail – has stagnated. Anyway, this is the case in the most European countries, too. So measures preferring environmental friendly modes have to be introduced to mitigate the negative effects of growing transport volumes.

There are no overall surveys describing the Hungarian transport-logistics market available. Some interesting features based on the latest studies are the followings (Gecse, 2005):

- the size of Hungarian logistics market is estimated between 700 and 900 million EUR (2004);
- about 66% of warehousing, 66% of customs, 62% of transport and 55% of distribution activities of bigger companies are outsourced;
- almost 33 thousand enterprises are registered in the transport-logistics sector (2004) of which about 20 thousand undertakings are sole proprietorships. Around 80% of the registered undertakings are road haulier, of which 70% are sole proprietorships. Approximately 9% of the enterprises are freight forwarders;
- 52 of TOP 100 logistics companies are owned – as majority shareholders – by foreign investors (2003). The main investors in Hungarian transport-logistics sector are Dutch (28%), Austrian (19%) and German (14%) companies (calculated on the basis of subscribed capital).

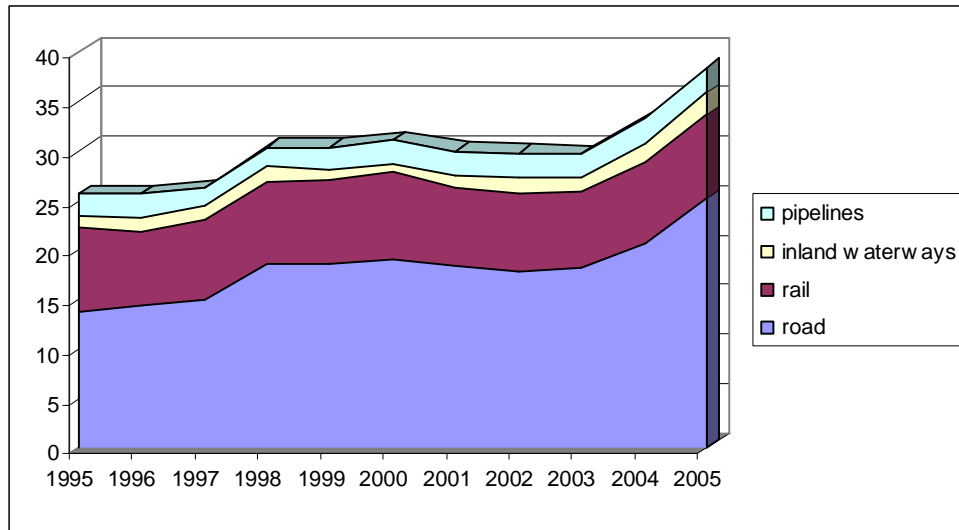


Figure 2: Freight transport performances in Hungary, 1995-2005 (1000 million tkm) (source: EU Comm., 2006c)

2. State interventions so far: results and experiences

In the European Union the topic of intermodality has a relevant role in recent transport policy. The development of intermodal logistics service centres/terminals and combined transport technology is an organic part of current Hungarian transport policy, too (Bokor & Torok, 2005).

One of the related topics of EU policy is building of „highways in the sea” (to exploit better possibilities of short sea transport), which is in Hungary – from geographical aspects – not a relevant alternative. However, when planning the domestic logistics network it is worth considering the relations to/from main seaports as potential routes for hinterland combined transport. The EU transport network’s bottlenecks should be eliminated by intermodal transportation. It is declared that investments to gradually develop the priority of freight trains, or the Trans European Corridors dedicated to freight trains should be preferred, particularly for the railways to the ports and terminals that are also bottlenecks (EU Comm., 2001).

Three subprograms in the executive programme of Hungarian transport policy are involved in intermodal logistics. In the „Sustainable development” subprogram preferring environmental friendly transportation modes, combined transportation is mentioned as an influencing instrument for sustainable development of transport policy. „The improvement of quality and the exploitation of current transport systems” subprogram emphasises that before generating new capacities one should aspire to increase the efficiency of current transport systems, among these the synchronisation of road, rail, and inland shipping. „The missing infrastructure elements” subprogram states that development of transportation has a really important point: the development of interfaces between different transportation modes. For that reason the terminals are important elements of interfaces in freight transport, especially preferred – in environmental ways – are the multimodal transportation systems (HMET, 2003).

Specific state interventions – derived from the general transport policy framework – have been concentrating on the further instruments:

- ensuring regulatory preferences for combined transport;
- defining the network of “national” logistics service centres (NLSC);
- providing public grants for combined transport and NLSC operators.

The preference system giving advantages to combined transport is harmonised with EU common rules: ensures exemptions from HGV³ weekend-stops, operational permissions and road vehicle taxes in case of short distance road freight integrated into combined transport chains (Bokor, 2006a).

A government order has determined the network of so called “national” logistics service centres in 1998 (Bokor, 2006a). NLSC certificates have been awarded centrally (by the ministry) on the basis of fulfilling some “soft” requirements (e.g. “intermodal connections can be built”). Controlling mechanisms supervising the real performances and regularly revising the actual status of logistics centres have not been applied.

Both combined transport service suppliers and NLSC operators have been entitled to apply for dedicated public grants. These grants could be used for financing infrastructure investments and procurement of special loading units or vehicles. However, this funding scheme – based formally on competition – has been practically restricted to a small group of relevant market actors (state owned railway companies and NLSC certificated terminal operators).

Thanks to the supporting measures a considerable growth in combined transport performances could be observed during the last decade (figure 3). Mainly the performance level of non-accompanied combined (road-rail) transport is growing continuously (at a moderate rate last years). It amounts to about 15% of total rail transport performances. At the same time the performance level of Ro-La transport has never reached the share of 10% of road transit and has been decreasing significantly last years due to the liberalisation of international road haulage in consequence of joining the EU. At last, the share of Ro-Ro transport is rather low and its tendency is varying (Bokor, 2006b).

The application of the so called NLSC conception has resulted in a very heterogeneous logistics infrastructure network (figure 4). The most developed/utilised centres are the Budapest Intermodal Logistics Centre – BILC (7), Freeport Csepel (6), Prologis Harbor Park (5) – each situated in the capital city Budapest – and furthermore Debrecen (12), Szekesfehervar (4) and Sopron (1). The other selected centres are developing in different ways. In Győr-Gönyű new equipment is established. In Szolnok (10) and Szeged (9) large scale investments have just started. In Nagykanizsa (3), Miskolc (11) and Baja (8) the low demand hampers further improvements, although the basic infrastructure is already available. At last but not least Zahony (13) has large capacities – thanks to the huge goods volumes transported in the former socialist system – but deteriorated infrastructure which needs to be improved significantly (Bokor, 2006b).

³ Heavy goods vehicles.

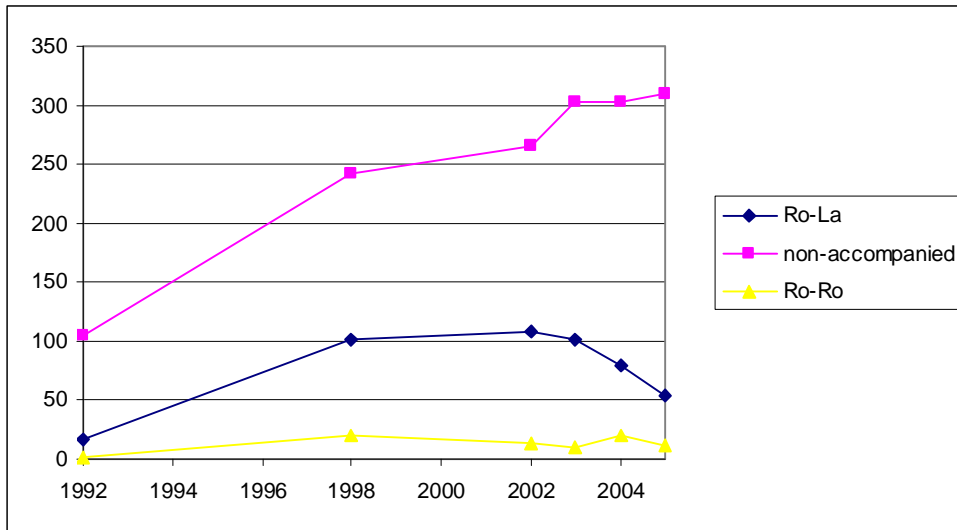


Figure 3: Combined transport performances in Hungary, 1992-2005 (1000 unit) (source: Bokor, 2006a)

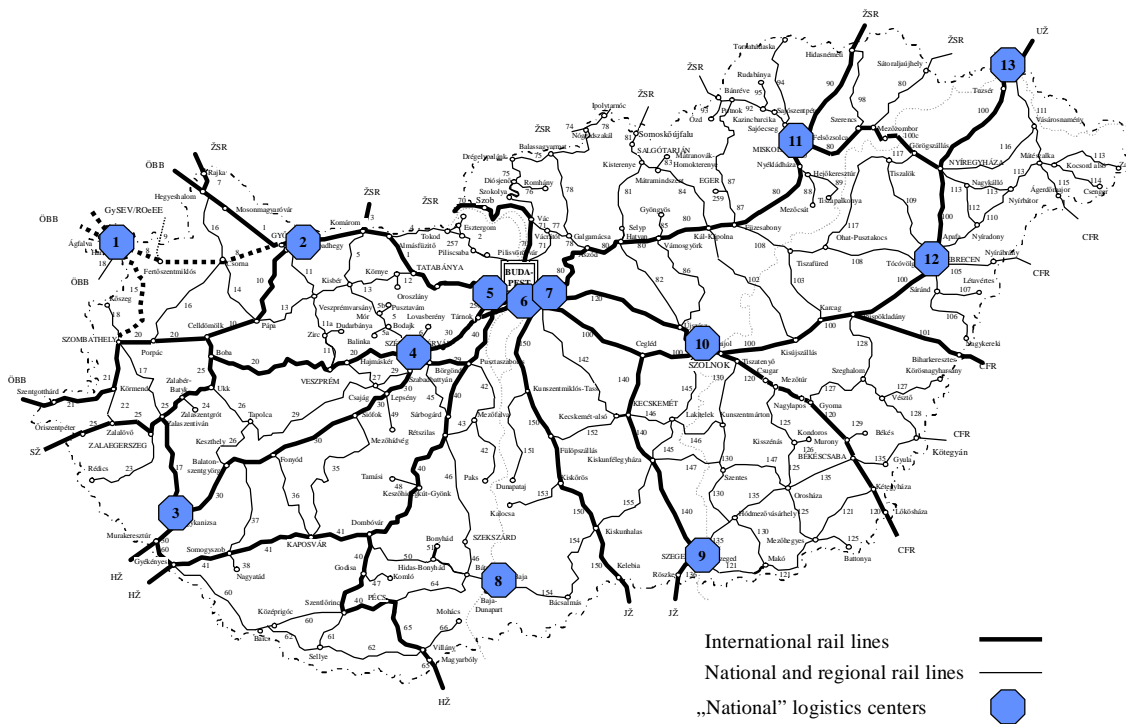


Figure 4: Railway lines and “national” logistics centres in Hungary (source: Bokor, 2006b)

3. The planned new mechanisms of state subsidies and regulations

Taking into account the experiences of former regulation and development policies additional measures to promote intermodal transport-logistics are under consideration in Hungary.

As a new regulatory instrument an EU-conform operational grant system for intermodal services or their providers is envisaged to be introduced. It can be justified by the fact that social cost based pricing systems have not been implemented in transport sector yet, which distorts decisions regarding mode choices. The application of such public grants may be, however, complicated because of the EU authorisation mechanism. Additional preferences can be granted when the new electronic toll collection system starts working (currently under construction, planned launching date for HGVs: 2008). Here lower or even zero road charges can be applied to road freight movements connected to combined transport (Bokor, 2006b).

Based on the negotiations with professional associations representing transport-logistics market actors it is decided to revise the qualification criteria of logistics service centres. It is necessary because the subsidies in the future shall be differentiated by taking into account what role/function a certain logistics centre can play in Hungarian logistics network. The NLSC scheme is not suitable to provide such kind of information so a new categorisation system has been elaborated (table 1).

Table 1: The proposed new categorisation system for logistics service centres in Hungary (source: Bokor, 2006b)

Accessibility	Types of LSC	Criteria	
		<i>Common criteria</i>	<i>Specific criteria</i>
Public	Intermodal with national importance	<ul style="list-style-type: none"> • basic infrastructure • basic (including customs related) logistics services • security services • information services 	<ul style="list-style-type: none"> • access to more transport modes (rail or waterborne is a must) • operating combined transport services • min. 15 ha territory • min. 10,000 sq m warehouse capacity • customs office I. • serves also international transport • open for settling companies
	Regional		<ul style="list-style-type: none"> • access to more transport modes can be built • min. 10 ha territory • min. 5,000 sq m warehouse capacity • customs office I. or II. • serves also international transport • open for settling companies
	Local		<ul style="list-style-type: none"> • min. 3 ha territory • min. 3,000 sq m warehouse capacity • open for settling companies
Non-public	Company		<ul style="list-style-type: none"> • serves a certain company or a certain group of companies

New short/mid-term approach in case of public subsidies is going to be applied in the frame of the 2nd National Development Plan (strategy for utilising EU structural and cohesion funds): co-financing market driven initiations through open competition rather than providing centrally allocated public funds. Another basic principle is to differentiate calls for proposals according to external and internal infrastructure development. In the “Transport development operative programme” building up of external transport infrastructure (e.g. rail or road connections) of terminals is supported while in the “Economic development operative programme” internal infrastructure and services (e.g. warehouses, public works, IT systems, etc.) of logistics centres can be co-financed. Projects will be chosen by competition based on

evaluating submitted proposals. Contributing with own capital is an essential prerequisite for every proposal (HMET, 2006a and 2006b).

The application of the new logistics centre categorisation scheme will make it possible to adjust the intensity of public contribution (% of total project costs, min and max subsidy amounts, etc.) to the type of transport-logistics services. It is agreed between authorities and professionals that public intermodal logistics service centres – or public centres managing to fulfil the requirements of intermodality in the near future – shall have priority when allocating available sources for grants.

Hungary – as a member of the EU – pays attention also to the relevant European policies. Here the revision of the common transport policy and the establishment of a dedicated logistics action plan shall be emphasised when preparing a long-term strategy for Hungarian transport-logistics system (EU Comm., 2006a and 2006b). The main result of the revision process influencing strategic planning in the field of logistics is the new concept of co-modality (instead of or beyond intermodality). Co-modality means the effective use of each transport mode and encouraging modal shift to less environment polluting modes where it is appropriate and reasonable. The Hungarian development policy corresponds to this principle as it provides sources – at different intensities – for every kind of service improvements but at the same time prefers intermodal solutions.

The relevant EU policies envisage standardisation in different fields of freight transport and logistics:

- loading units (for inland transport);
- legal conditions, administrative procedures (e.g. multimodal bill of lading);
- information and communication technologies and systems;
- education and training materials, certification;
- statistics, etc.

These standardisations are crucial from the point of view of competitiveness of multimodal supply chains at international level. Hungary has to be proactive when implementing the new standards: an early application can make real competitive advantages by providing an innovative operational framework for transport-logistics sector.

4. Concluding remarks

As a general conclusion of Hungarian experiences, it can be stated that the state (public sector) has significant roles in providing the appropriate framework conditions for operating efficient transport-logistics services. However, it is also obvious that the related business decisions have to be taken by the market actors – taking into account also the mentioned framework conditions. This philosophy is in line with the latest EU policies, too.

What shall be the main points of state intervention? Providing the transport infrastructure network, contributing – in a competitive way – to the establishment or improvement of privately operated logistics centres/terminals and their services by preferring the environmentally more sustainable solutions, giving advantages to combined transport modes and ensuring stimulating taxation/customs rules and well functioning practices. Standardisation of technologies and procedures, however, needs to be tackled in international level. A good example for co-ordinating these incentives are the new freight logistics strategy and action plan of the European Commission.

References

Bokor, Z. (2006a): Hungarian intermodal logistics development conception (in Hungarian). Hungarian Ministry of Economy and Transport, Budapest

Bokor, Z. (2006b): Promoting intermodality in Hungarian transport-logistics system. In: proceedings of the 4th International Logistics and Supply Chain Congress, Izmir, November-December 2006, ISBN 975-8789-08-2, pp. 42-50

Bokor, Z. & Torok, A. (2005): Situation and perspectives of intermodal logistics in Hungary. *Promet – Traffic – Traffico*, vol. 17, No. 6, pp. 349-352

EU Commission (2006a): Freight Logistics in Europe – key to sustainable mobility

EU Commission (2006b): Keep Europe moving – Sustainable mobility for our continent. Mid-term review of the European Commission's 2001 Transport White Paper

EU Commission (2006c): Energy & Transport in Figures

EU Commission (2001): European transport policy for 2010 – time to decide

Gecse, G. (2005): How can Hungary become a logistics centre – ex ante evaluation and conception (in Hungarian). Hungarian Ministry of Economy and Transport, Budapest

Hungarian Ministry of Economy and Transport (2006a): Transport development operative programme (in Hungarian)

Hungarian Ministry of Economy and Transport (2006b): Economic development operative programme (in Hungarian)

Hungarian Ministry of Economy and Transport (2006c): Transport infrastructure development in Hungary

Hungarian Ministry of Economy and Transport (2003): Hungarian transport policy 2003-2015 (in Hungarian)