OPPORTUNITIES FOR DEVELOPING THE INFRASTRUCTURE OF THE ESTONIAN RAILWAY SECTOR

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Abstract

Despite the setback caused due to recession in Estonian economy, Eesti Raudtee managed to avoid a major decrease in capacities. Eesti Raudtee suffered from a minor decrease in capacity in comparison with the railway companies of the neighbouring countries. When AS Eesti Raudtee was in private ownership during 2001-2006, the state of infrastructure was unsatisfactory and required major investments. In order to manage the infrastructure of the railway, a subsidiary company - AS EVR Infra was founded in 2009, which acquired the rights and obligations of Eesti Raudtee in the area of infrastructure.

Key words: railway sector, infrastructure of the railway, quality of passanger conveyance, development of railway sector.

Introduction

Major investments in the infrastructure of the railway have been possible thanks to the subsidies provided by the European Union. In 2009 first projects were launched, which improved the quality of passenger conveyance.

In 2010 new projects were launched. The amount of European subsidies increased considerably in comparison with the previous years. The investment plan of transport infrastructure development comprises six railway projects altogether, with the possibility of support up to 2.3 billion kroons provided as subsidies by the European Union.

The European Commission accepted a proposition in September 2010 concerning the improvement of the quality of railway transportation of passenger and goods via the enhancement of competition at the railway market and the improvement of investing network into railway transportation. The proposition of the directive of founding the unified railway area and legal regulations are unified into one cohesive text and solutions of issues threatening the efficiency of railway transportation market are sought for. Propositions adopted by the European Commission have to be implemented also in the railway sector in Estonia.

The Estonian transport system entails railway, road, maritime, inland waterway and air transport. The transport sector employs more than 50 000 people, which is 8% of all employed people. 3.3% of the companies of the republic are engaged in transport. Transport provides an important contribution to the receipt of export costs and balances the Estonian foreign trade balance. The infrastructure of the Estonian railway comprises the railway (rails, electrical system, signalling system) and the buildings and civil engineering works needed to manage the railway. The purpose of the article is to show the state of Estonian railway transport and the opportunities for developing thereof, both considering the opportunities of the country itself as well as opportunities for development through the aid received from the European Union. The European Union inspires the East-European countries to develop the railway infrastructure more than so far and for that purpose, the new Trans-European Transport Network (TEN-T) programme that will be effective in 2013 plans to offer more stimuli.

The development of public transport in Estonia over the past years has been faster than the development of the entire economy of the country. In addition to this, transport / transit trade has an important role in balancing the balance of payments of the Estonian state, bringing more than 5 billion kroons to Estonia annually. The decrease in the intensity of railway transport over the past years has opened up an opportunity for Eesti Raudtee (Estonian Railways) to implement a capacious investment programme for modernising railway infrastructure.

In Estonia, transport infrastructure is rather depreciated and the need for investments is great. The infrastructures related to transit trade are in a better condition.
**European Union transport policy**

Rail transport, while largely filling a niche market in many countries, is an important freight mode in much of Continental Europe and provides important passenger services along several major corridors. The recent focus has been more with widening access to networks and with technological developments, especially regarding the development of a high-speed rail network as part of the TEN-s initiative. With regard to railways, the gist of the overall proposals is for short-run marginal costs including environmental and congestion costs as well as wear on the infrastructure to be recovered. Long-run elements of cost are to be recovered only in narrowly defined circumstances, and only in relation to passenger services [1].

In 1990 the Commission set up a high-level working group to help push forward a common approach to high-speed railway development, and a master plan for 2010 was produced. The EU’s efforts to harmonize the development of high-speed rail has not been entirely successful and there are significant technical differences, for example between the French and German systems [2].

The corner stones of the EU transport policy are liberalisation and harmonisation. Harmonisation means the elaboration and enforcement of the same rules, regulations, technical norms and legal instruments in all EU countries to facilitate transport within the economic community. Liberalisation means the introduction of free competition without any hindrances or limitations. Although several transport policy issues fall in the competence of the governments of Member States, it is rational to establish a single transport infrastructure for the common European market. This is why the European Union has opened the markets of all Member States to competition, especially in the maritime and air transport sector and less in the railway transport sector. In Western Europe, a large part of European Union aid is channelled to railway infrastructure, whereas in Central and Eastern Europe, it is channelled to highways [3].

In order to establish the infrastructure, the Member States use the Structural Funds of the European Union, borrowed funds or state and private capital. At the moment, some TEN-T projects are completely domestic, such as, for example, in Spain or Great Britain for developing the local railway network. The European transport networks development plan or the so-called TEN-T programme contains 30 high-priority projects for the development of transport links across Europe, of which 2/3 are related to railway connection [4].

In September 2010, the European Commission adopted the directive on the establishment of a single European railway area, which joins the three valid legal instruments into one and attempts to solve the problems of the railway market.

The directive discusses the following:

1. competition issues: the aim of the directive is, by the aid of clear market access conditions, to increase the competitiveness of the railway market and provide easier access thereto;
2. surveillance powers of regulatory authorities: with the proposal, state bodies regulating the railway sector are granted greater powers;
3. rationalisation of the network of state and private investments: the purpose of the new regulations on the funding and taxation of the infrastructure is to elaborate harmonised financial structures for the facilitation of investments [5].

The ensuring of sufficient volume of the maintenance and repairs of railway infrastructure must guarantee the increase of safe traffic and speed on the railway according to the stipulations of legislation. From the state budget, incl. Structural Funds of the European Union, only projects of extensive national importance are funded, for which there is a clearly defined public interest and which on other terms would be left unexecuted. The European Union finds it regrettable that in many Member States, railway infrastructure is still not enough invested into with regard to development and maintenance, and the quality of existing infrastructure is in several cases decreasing; the Union insists that the Member States adopt the means necessary for ensuring the development of new railway transport projects and sufficient maintenance of the current infrastructure.

**Infrastructure of Eesti Raudtee**

The priorities of the Republic of Estonia at the development of transport infrastructure are
related to the development of public transport (incl. passenger train traffic), the increase of traffic safety and the improvement of international transport links. In the field of public transport, the government has decided to invest into the improvement of the quality of passenger train traffic as a priority. The government decided to fund the acquisition of new rolling stock for the operators of passenger train traffic in Estonia in the total amount of EEK 1,1 billion and the capital lease of diesel rolling stock in the amount of almost EEK 2 billion, the reconstruction of the railway at the Rail Baltica route (the Tallinn-Tartu section) in the amount of EEK 650 million and the modernisation of train waiting platforms in the amount of more than EEK 200 million [6].

AS Eesti Raudtee (Estonian Railways Ltd.) (established in 1997 with the reorganisation of the former state company Eesti Raudtee) belongs to the Estonian state. AS Eesti Raudtee executes passenger transport on international lines and in electric trains. Passenger transport within the country is organised by Edelaraudtee AS. Railway infrastructure is administered and managed by Raudtee Kaubavedude AS, formed on the basis of AS Eesti Raudtee. In order to manage railway infrastructure, on 14 January 2009, at the division of AS Eesti Raudtee, a subsidiary AS EVR Infra was established, to which the rights and obligations of Eesti Raudtee in the field of infrastructure were passed [7]. The year 2009 went to history with major investments into railway infrastructure, which were executed by the aid of European Union support. Until the year 2013, Estonia has the opportunity to invest support from the EU in a total of almost EEK 66 million. Estonia has applied the EU support the most productively in the field of transport [8]. The volume of the investment budget of Eesti Raudtee in 2010 was EEK 1,4 billion, of which EEK 504 million is co-funded by the Structural Funds of the European Union.

Considering the structure of the owners of Estonian railways, it is understandable that the provision of any support must not give one company an unjustified advantage over the over and must proceed from the competition laws and state aid regulations of the European Union as well as Estonia. Estonian transport infrastructure is going to receive great support [9].

The volume of the investment budget of Eesti Raudtee in 2010 was EEK 1,4 billion, of which EEK 504 million is co-funded by the Structural Funds of the European Union. The main purpose of „Estonian Transport Strategy 2006-2013“ is to improve the systematics of planning, the seeing of an integral picture, the identification of actual reasons and by that, ensure the sustainable development of the transport sector. This document does not stipulate any long-term goals (10-30 years), but foresees the elaboration of these for the development of various transport types, creating a horizontal framework and, as a management structure, a transport commission, by the aid of which all experts of the given field could be involved in the elaboration of the long-term transport visions of Estonia [10].

The waiting platforms of passenger trains are reconstructed from two projects funded by the European Union, the implementation of which is the responsibility of AS EVR Infra. In relation to the acquisition of new trains by the year 2013, it is necessary to reconstruct the waiting platforms in the working area of electric trains from the current height of 1100 mm to 550 mm. In the framework of the given project, 57 waiting platforms are taken to the so-called euro height. The project is divided into stages. 39 passenger train platforms are reconstructed in the framework of the project. The passenger platforms to be reconstructed are located on the infrastructure of AS EVR Infra [11].

In the Republic of Estonia, the problem in passenger train traffic has been the lack of investments made in the public interest into the railway infrastructure, affecting the allowed speeds on the railway, safety, the achievement of environment-related goals and also the competitiveness of the country as a whole. Recently, investments have been initiated for organising the infrastructure of Eesti Raudtee. By the aid of these investments, in 2011, passenger train traffic is expected to qualitatively rise to a new level, which, among other things, means that on major railway lines (Tallinn-Narva and Tallinn-Tartu), train speed could reach 120 km/h.

In total, between 2008 and 2017, Eesti Raudtee plans to invest almost EEK 5,8 billion into infrastructure, incl. almost EEK 2 billion for repairing the railway. From the main rail lines,
430 km or 53% is planned to be repaired during the period under discussion [12].

In order to make public transport (incl. railway transport) more convenient to use, an information system of timetables and travel plans covering the entire Estonia has been established at the initiative of the Ministry of Economic Affairs and Communications. To improve the quality and availability of public transport, the compatibility of different timetables has also been set as a priority, that is, at the compilation of timetables for different types of transport, the connections between different transport types are going to be proceeded from. The aim is to increase the popularity of public transport and thereby decrease the proportion of the use of passenger cars in domestic transport.

**Freight transport on the infrastructure of Eesti Raudtee**

In spite of the economic crisis both in the economies of Estonia and the world, in 2009, freight transport on the infrastructure of Eesti Raudtee only experienced a slight recess. Compared to the railway companies of neighbouring countries, the drop in the volumes of Eesti Raudtee was the lowest. In Latvia, it was 4% and in Finland and Lithuania even as much as 22%. In Estonia, only 2,67 % [7]. The main activities of railway service are price regulation, activity licenses, market supervision, security of provision and quality in the field of railway services.

Freight transport on the infrastructure of Eesti Raudtee in 2010 compared to 2009 is illustrated on Figure 1. In total, in 10 months of 2010, 24,11 million tons of goods were transported on the railway, which is 16,5% more than in the ten months of 2009. In October 2010, the transport of petroleum and petroleum products increased by 44,8% compared to the previous year, amounting to 1,81 million tons. The transport of oil shale also increased almost two-fold, amounting to 0,34 million tons. The third place was occupied by fertiliser with 0,22 million tons, increasing by 20%. Coal was transported in half that amount – 0,1 million tons.

Of larger goods, the transport of coal and solid bulk goods decreased by app. 30%, which amounts to transport volumes of 1,14 and 0,49 million tons, respectively. In ten months, transit operation made up 81,2% of transport, amounting to 19,57 million tons and increasing by 14,6% in the year. The volume of local transport increased by 40%, amounting to a total of 3,28 million tons. Export increased as well – export capacity was 0,51 million tons, increasing by 16%. The only type of transport that decreased was import (-11%), remaining at 0,75 million tons.

![Fig. 1. Transport of goods on the infrastructure of Eesti Raudtee, million tons [14]](image-url)
According to specialists, the infrastructure of Eesti Raudtee is burdened the heaviest not as much by the increase of traffic density, but by the American locomotives brought to Estonia a few years ago. These are capable of moving larger trains, but also wear the railways out more. According to the newspaper Postimees, it was exactly due to the excessive wear and tear of the infrastructure that Russia prohibited the use of US locomotives on its railways, so the railway company is forced to partially transport the goods coming through Pechora with rented locomotives for the second week already [13].

The transit commission supports the amendment of the methodology for charges for the use of railway infrastructure. On 10 March 2009, a draft was elaborated for amending the methodology for charges for the use of railway infrastructure. The new methodology allows establishing a higher and lower limit for the charges for the use of railway infrastructure for a calendar year. For carriers, this means an opportunity to plan their business plans better and longer ahead. The commission also supported the proposal to make the allocation of railway infrastructure capacity more flexible [14].

The supervisory board of Eesti Raudtee stipulated the sales revenue of the consolidated budget of the group for 2011 to be 1,4 billion kroons. Eesti Raudtee forecasts the net profit of 2011 to be 92,6 million kroons. When establishing the budget for 2011, Eesti Raudtee forecast the volume of the goods transported on the infrastructure of Eesti Raudtee to be 24,9 million tons.

Elaborated means for organising transport demand may decrease transport volume. This will improve the efficiency of the transport of economy and weaken the link between transport increase and economic growth.

Conclusion

In the past years, the development of Estonian transport has been faster than that of the entire republic, but transport infrastructures are still rather depreciated. There were no major decreases in the transport volumes of Eesti Raudtee. In Estonian passenger train traffic, the lack of investments made in the public interest into the railway infrastructure has been a problem, affecting the allowed speeds on the railway, safety, the achievement of environment-related goals and also the competitiveness of the country as a whole. Over the past years, major investments into the field have been initiated for arranging the infrastructure of Eesti Raudtee. Large investments into railway infrastructure can be made by the aid of EU support. In September 2010, the European Commission adopted a proposal to provide better rail services for passenger and freight users.

The ensuring of sufficient volume of the maintenance and repairs of railway infrastructure must guarantee the increase of safe traffic and speed on the railway according to the stipulations of legislation. From the state budget, incl. Structural Funds of the European Union, only projects of extensive national importance are funded, for which there is a clearly defined public interest and which on other terms would be left unexecuted.

In total, between 2008 and 2017, Eesti Raudtee plans to invest almost EEK 5.8 billion into infrastructure, incl. almost EEK 2 billion for repairing the railway. From the main rail lines, 430 km or 53% is planned to be repaired during the period under discussion. It does not matter for the state who owns the infrastructure, but that the infrastructure worked impeccably.

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