



**Project “East West Transport Corridor II” (EWTC II)
WP 4 – Business Opportunities in Railway Transports
Task 4B – Railway shuttles Klaipėda/Kaliningrad
eastwards**

**FINAL SWOT REPORT
ON THE SELECTED RAILWAY SHUTTLES**

Vilnius, 20-10-2011

Final SWOT report on the selected railway shuttles

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1. Summary

SWOT analysis of the task “Railway shuttles Klaipeda/Kaliningrad eastwards” is to base development of the shuttle train “Viking” and selection of a new logistics schemes and of a new rail shuttles. SWOT analysis was carried out for the development of shuttles in EWTC corridor for two main directions: from Klaipeda/Kaliningrad to Black sea region and from Klaipeda/Kaliningrad to Russia, Kazakhstan, China and other East countries.

Evaluating the tendencies of the Baltic and the Black Sea region trade and transport market increase and conclusions of the SWOT analysis, these main project “Viking” development directions can be chosen:

- Seek to increase goods flows between intermodal terminals of Ukrainian railways and the port of Klaipeda;.
- Seek to extend the route of train “Viking” to Turkey
- Seek to extend the route of train “Viking” to Georgia and further through the countries of Caucasus;
- Develop trailer and semitrailer transport by railways in the whole shuttle “Viking” route.

Conclusions of the SWOT analysis for the development of shuttles in EWTC corridor for direction Klaipeda/Kaliningrad to Russia, Kazakhstan, China and other East countries helped select the shuttles:

- Revival of shuttle train Klaipeda/Kaliningrad – Moscow project;
- Implementation of shuttle train Klaipeda – Alma Ata (Kazakhstan) with an extension – Urumqi (China) project;
- Maintenance of NATO good transport to Afghanistan project.

SSGG analysis showed that perspective and strategically important development directions of shuttles from Klaipeda/Kaliningrad eastward would be:

1. “Viking” train project development by opening more stations (terminals) in Ukraine, prolonging the route to Turkey and the countries of Caucasus, absorbing market share of transport trailers and semitrailers by rail;
2. Revival of shuttle train Klaipeda/Kaliningrad – Moscow project;
3. Implementation of shuttle train Klaipeda – Alma Ata (Kazakhstan) with an extension – Urumqi (China) project;
4. Maintenance of NATO good transport to Afghanistan project.

The listed projects are important to the development of the East – West transport corridor. Initiatives focused on implementation of “green” transport corridor are based on the shuttle launch projects over long distances between Europe and Asia. The new listed logistics schemes already demonstrate the viability of the East – West transport corridor and create preconditions for increasing of the smooth flow of goods in the corridor.

2. Background to the project

EWTC II project includes the EU country in the Southern Baltic Sea region, Lithuania, non-EU countries Belarus, and Kaliningrad region as an associated member of Russia. Moreover, the project aims to implement the green corridor, which geographically is a continuation to Russia, Central Asian countries, China, Ukraine and the Black Sea region.

The concept of the green corridor gives the priority to sustainable water and rail transport modes for cargo transportation, ITS solutions for road transport, effective technologies of handling cargo in transport hubs and co-modal terminals, modern technologies for information exchange among all stakeholders throughout the corridor.

The railway net in each country was created by their strategic needs, the existing legal norms, standards, etc. Therefore, a huge diversity of railway systems and rail freight business models has formed in EWTC. The aim of EWTC Joint Railway Concept is to offer solutions to enable more efficient, sustainable and ecological rail freight services. Enhancing the interaction between rail and other modes of transport is also relevant for the efficiency of the whole logistics chain. Focus on implementation shuttles is very important for greening the EWTC in this case.

More and more goods are transported in intermodal units and a clear tendency of such good transport increase is visible, therefore shuttle train projects for faster such goods deliveries to designation are implemented. The shuttle train “Viking” project was started in 2003, when Lithuanian, Ukrainian and Belarus railway companies signed an agreement. The project is intended to the development of the logistical chain, which joins the Baltic Sea and the black Sea region markets. Later, the project was joined by port of Klaipeda, Odessa and Ilyichevsk. Route Klaipeda – Vilnius – Minsk – Kiev – Odessa – Ilyichevsk is 1734 kilometres long. The train finishes the route in 54 hours. By agreement, 20, 40 and 45 feet long containers are transported by this train.

The project of shuttle train “Viking” was successful. Railway organizations, which created a constantly active institution for consultations, of all three countries showed good cooperation and operative problem solving. Problem questions were discussed and solved in meetings of specialists and managers, respectively by the level of competence. Weaknesses were corrected following the protocol decisions.

The project was supported by the government institutions of Lithuania, Ukraine and Belarus. The governments of these countries signed an agreement of project “Viking” development, which helps to solve problems that depend on the government institutions. Governments and ministries of transport of these countries have annual meetings for the development of project “Viking”.

3. Aim of the task

The objective of the task “Railway shuttles Klaipeda/Kaliningrad eastwards” is to provide measures for strengthened performance of the railway shuttle “Viking” and other eastbound shuttles from Klaipeda /Kaliningrad Region by setting a transnational green transport corridor context for further operations.

The task will feature SWOT analysis, market investigations and development of business plans for new logistic schemes and extension of shuttle train services towards Russia, Belarus, Ukraine, Kazakhstan, Georgia as well as Central Asia and the Far East. In that respect a study will also be prepared to consider connection of the shuttle services in the corridor with the operation of the Transsiberian route. Joint events with organisations dealing with Far East trade will be organised. Results of the task will be transferred to WP3.

4. Methodology

During the SWOT analysis inner organization's strengths and weaknesses and outer opportunities and threats are examined. In this case, the railway transport corridor, which continues through the territories of EU and not EU countries, is analysed. Railway transport services are provided in each country by integrated companies of every country, which essentially help to ensure the functionality of the railway transport corridor. Therefore the SWOT analysis of inner strengths and weaknesses will include all the functionality aspects of the corridor and the analysis of outer opportunities and threats will glance at the environment, which is associated with the functionality of the corridor.

Assessing the inner and outer factors was studied on geographical, legal, economic, ecologic, social, technological, informational, communicational and political aspects.

SWOT analysis is based on data OSJD, SC "Lithuanian Railways", presentation at conferences and forums, the information dealt with problematic issues of Railway Companies regular meetings, as well on items of the agenda of authorities in the official annual meetings of the Economic Cooperation between Lithuania, Belarus, Ukraine, Russia, Kazakhstan, Georgia, Azerbaijan.

Findings of the SWOT analysis made in the assessment:

1. Or the strengths will enable to use the opportunities?
2. Or strengths will help to prevent the threat?
3. Or weaknesses will not prevent the use of the opportunities?
4. Or weaknesses will not hinder to prevent the threats?

5. SWOT analysis of Viking train extension to Turkey and the TRACECA corridor

As the market review shown, the extents of trades between the Baltic Sea and the Black Sea region grow constantly. The most attractive partners to the countries of the Baltic Sea region from the Black sea region by the trade extent growth are Turkey, Azerbaijan and the insufficiently used abilities of the Ukrainian market.

The project of shuttle train “Viking” is recognized as the best practice example. The train regularly transports containers on the route Klaipeda – Minsk – Kiev – Odessa – Ilyichevsk. However, it doesn’t mean that there are no problems with the providing services of this shuttle train and that all the possibilities to increase the extent of goods transport flows and improve the quality of the service are used. We have done a SWOT analysis in order to determine the direction of this train’s service development.

During the SWOT analysis inner organization’s strengths and weaknesses and outer opportunities and threats are examined. In this case, the railway transport corridor, which continues through the territories of EU and not EU countries, is analysed. Railway transport services are provided in each country by integrated companies of every country, which essentially help to ensure the functionality of the railway transport corridor. Therefore the SWOT analysis of inner strengths and weaknesses will include all the functionality aspects of the corridor and the analysis of outer opportunities and threats will glance at the environment, which is associated with the functionality of the corridor.

Assessing the inner and outer factors we will study geographical, legal, economic, ecologic, social, technological, informational, communicational and political aspects.

Strengths

While analysing the issues of the development of the shuttle train “Viking”, we are able to evaluate the existing strengths:

- Trade and economic and science and technical cooperation intergovernmental committees of Lithuania and Belarus, Lithuania and Ukraine, which study transport issues and solve the problems of the development of the shuttle train “Viking” at a political level, are established.
- A tripartite Lithuanian, Belarus and Ukrainian Good transport development in the direction the Baltic Sea – the Black Sea Coordination council was established on 12th of May, 2008
- Since the beginning of the shuttle train “Viking” project a Lithuanian, Belarus, Ukrainian railway company forum, which solves problematic interaction, traffic, tariff, information trade and other technical – organizational issues, has been established.
- A well-developed 1520 mm width gauge railway network creates assumptions for good transport throughout the whole East – West transport

corridor. The geographical situation of the corridor is opportune for goods transport without overloading from the ports of the Baltic Sea to the ports of the Black Sea.

- The 1520 mm width gauge railway network infrastructure is adapted for goods transport services:
 - The main railway lines are adapted to the transport of heavy-weight trains that weigh up to 6000 tonnes and their length is up to 1000-1100 m;
 - Most of the main trunk-lines (railway corridors) are electrificated, therefore good transport by railways to long distances are characterized by very low pollution levels;
 - Sorting and overload stations and intermodal terminals are optimally situated in the railway network.
- 1520 mm width gauge railway network was centrally developed, therefore the technical – technological interaction is good enough because of the harmonized legal norms:
 - Equal technical interaction rules are valid in the whole railway network;
 - Equal goods and wagon transfer rules are valid in border stations;
 - Equal wagon, which belong to the general wagon park, usage and payment for the usage rules are valid;
 - Legal interaction issues are solved, the improvement and examination of valid rules is determined centrally by the Council of Railway Transport (CRT) in the 1520 mm width gauge railway system.
- Favourable agreements between Lithuania and Belarus for the smooth intermodal goods transport across the EU border are:
 - procedures of customs and EU – Belarus border crossing are simplified;
 - information about the transported goods (bills of loading) are transferred electronically to the border station and other customs or border control services in advance;
 - a copy of the loading bill is used as a customs declaration.
- The economic and ecological attractiveness of shuttle train “Viking” is increased by the favourable Lithuanian, Belarus and Ukrainian railway company agreements, which state that:
 - the tariff of goods transport on the route Klaipeda – Ilyichevsk is equal and attractive in all of the parts;
 - a strict route and delivery time, which allows to take into account goods deliveries or collecting in the intermediate route’s terminals. A particular movement schedule, which is adjusted according to departure time of the formed train, border crossing

procedure length and a realistic goods processing length in the intermodal terminals;

- calculations (according to the OECD method) show that transportation of the same load by railway transport pollutes less by 336,7%, makes less noise by 183,3% and decreases indicate rate by 840%.

Shuttle train “Viking” project was acknowledged as an example of the best practice and was awarded by the association of European intermodal transport (EIA) in 2009;

- The abilities of Klaipeda, Odessa and Ilyichevsk ports are high enough. Ukrainian railway ferries company “Ukrferry” are able to transport 108 railway wagons at a time.
- The efforts of AB “Lietuvos geležinkeliai” to develop shuttle train projects and ensure political support for them:
- A signed agreement with a private Ukrainian company “Plaske” for the authority to act in the name of the company in Ukraine and other countries of the Black Sea region as the train operator and to seek for the possibilities of “Viking” project development;
- Constant communications and signed cooperation memorandums with logistics and railways companies in Georgia, Azerbaijan and Turkey in the field of train “Viking” development, together attempting to include project “Viking” development questions to the schedules of minister, government leader and president visits;
- Georgia and Moldova joined the “Viking” project.
 - 1520 mm width gauge railway network is developed in the main directions:
- Lithuanian railways implement railway infrastructure improvement projects. The improvements are made in the fields of one path line changing into two lined paths, reconstruction of tracks, buildings and signalisations for faster and heavier railway transport, main railway lines electrification, advanced IT systems and modern traffic control systems are installed;
- Belarus and Ukraine also give great attention to the development of railway transport – goods transport by railways permeability programs are implemented, infrastructure, border stations, traffic control and signalling systems are being modernized.

Weaknesses

Even though there are many advantages, which are opportune to the development of shuttle train “Viking”, there still are a few weaknesses, which prevent the increase of intermodal goods transport by railways extents:

- A lot of empty containers are transported from Ukraine to Klaipeda, because Ukrainian goods amounts are too little the goods flows transported by train “Viking” are therefore imbalanced.
- A limited number of intermodal terminals in Ukraine, which apply the agreed (transit) tariffs for the shuttle train “Viking” (only 10 stations). At present Ukraine applies higher (import-export) tariffs in the stations, which are not included in the agreement. This situations prevents the increase of the number of train “Viking” service users and stops the development of railway service
- Sufficiently ineffective organization of actions in the ports of Odessa and Ilyichevsk, long customs and border crossing procedures make the goods transport by train “Viking” less attractive.
- Sufficiently rare railway ferries from Odessa/Ilyichevsk to ports of Turkey and Georgia. Therefore shuttle train schedule coordination with ferry schedules problems appear and goods downtimes, goods delivery times extend.
- High railway ferry company “Ukrferry” tariffs stop the development of the “Viking” project in the Turkey and Kazakhstan directions. Consequently, container transport to Caucasus counties by motor transport is more competitive in compare with goods transport by train “Viking” and the Black Sea.
- TRACECA is not homogenous in the view of used transport modes, therefore the number of intermodal goods overloading procedure and transport service costs increase.
- Without agreements for simplified border crossing procedures, long customs and border crossing procedures in Caucasus and Central Asian countries become an obstacle for a fast intermodal goods delivery by the train “Viking” to further designation points in the TRACECA corridor.
- It is difficult to harmonize container transport tariffs, when new service routes are launched. High tariffs of goods transport by railways in the Caucasus countries, which don't belong to the project “Viking” complicate the development of the project. An agreement for lower Ukrainian railway ferry company “Ukrferry” tariffs and a larger number of Ukrainian railway stations opened for the train “Viking” is still not reached.
- Analysis showed that a large number of containers, which are delivered to the port of Klaipeda, are transported by motor transport to distances longer than 500 km. A part of these containers are transported along the route of train “Viking”. This practice is unjustified in the economic, social and economic views.

- Effective technologies of trailer, semitrailer loading onto and off platforms are not installed in most of the intermodal terminals. Custom and border crossing procedure simplification for trailers and semitrailers, carried by rail, question is not solved in some of the countries, lack of motor transport carrier will to transport trailers and semitrailers by railways and an unformed or sparse wagon park (a larger only in Ukraine) is an obstacle to the assimilation of this market segment, even though this service was foreseen at the launch of shuttle train “Viking” project. The most important barrier in this segment of the market is the negative attitude of carriers by motor transport.
 - A uniform bill of load according to the legal norms of SMGS and CIM is yet to be accredited and still is an obstacle for information trades between separate participants of the logistics chain.
 - Informational obstacles appear because of the variety of used information systems. Information trades do not ensure operative goods tracking in the whole route.

Opportunities

Transport network are developed in respect to the development of the trades between the Baltic Sea and the Black Sea regions. Transport service companies actively become involved, politicians and government institutions strengthen the corporation therefore new opportunities for the development of the shuttle train “Viking” appear:

- Trade and economic and science and technical cooperation intergovernmental committees of Lithuania and Belarus, Lithuania and Ukraine discuss the problems of shuttle train “Viking” development, for example:
 - Favourable condition for goods transport by container train “Viking” and development questions were discussed in Kiev on the 6th of December, 2010;
 - Electronic declaration questions and possibilities of additional Ukrainian railway station involving into the service of the train “Viking” were discussed on the 17-18th of October, 2011;
 - On the 22nd of November, 2011 an agreement by the Lithuanian Minister of Transport and the Ukrainian Minister of Infrastructure and Communications of shuttle train “Viking” development was signed during the stay of the President of Lithuania. It obliged Ukraine to use the gained Lithuanian – Belarus border crossing experience and to shorten the container train control to 2 hours.
- Questions of smooth movement and interaction between the Baltic and the Black Sea are considered in the goods transport development in the direction the Baltic Sea – the Black Sea Coordination board, for example:

- During the meeting in Odessa on the 1st of June, 2010 the questions of good transport on the route Odessa/Ilyichevsk – Cerniachovsk, new member joining to the goods transport development in the direction the Baltic Sea – the Black Sea Coordination Board were considered;
- During the meeting In Kiev on 15-16th of march, 2011 it was offered for Azerbaijan, Georgia, Moldova, Syria and Turkey to join the 2008-05-12 tripartite agreement of Lithuania, Belarus and Ukraine. Negotiations about the joining to the agreement have been started and they are already finished with Georgia and Moldova.
 - Project “East – West transport corridor” and established East – west transport corridor association (EWTC) essentially improved the possibilities of the intermodal train development, because the cooperation was started at a global level of East – West transport corridor countries, including more participants, which are interested in transport service development. EWTC organized events promote the development of shuttle trains:
 - A few goals of the project “EWTC II” are intended to the launch of new shuttle trains (without this study). Studies on the route Esbjerg – Copenhagen in Denmark through the Oresund channel and continuing through Malmo – Karlshamn in Sweden will be made.
 - Past events in Klaipeda – Karlshamn (7-10th of November, 2010) and Odessa (27-28th of May, 2011) and other planned measures not only spread the information about EWTC abilities, but also allows business and transport chain participants to communicate directly, find new connections, use existing transport routes or search for new goods transport schemes.
 - A signed agreement with a private Ukrainian company “Plaske” for the authority to act in the name of AB “Lietuvos geležinkeliai” in Ukraine and other countries of the Black Sea region as the train operator and to seek for the possibilities of “Viking” project development will help to more effectively use the trains’ abilities in Ukraine and will simplify the search of potential route prolonging to Turkey and through the TRACECA corridor. An essentially important aspect of this agreement is the search for ways how to more effectively use the existing Ukrainian shipping company “Ukrferry” lines for the development of project “Viking” in the Black Sea.
 - Lithuanian, Belarus and Ukrainian railway company forum is arranged every half of the year. During it various problematic questions are considered, for example – the opening of Ukrainian railway stations to the train “Viking”, the registration of a national and international trade sign “Viking”, the selection of the advertising strategies in the international markets and “Viking” internet page creation, annual tariff coordination, etc.

- AB “Lietuvos geležinkeliai” often organize events with other interested parties for the development of project “Viking”, for example:
 - On the 10-11th of March, 2009 representatives of Lithuanian, Belarus and Kaliningrad railway administrations and expeditionary companies met in Minsk. Goods transport flows and tariff politics, which influence good transport by the railways of these countries, new route creating possibilities were discussed during the meeting;
 - On the 4th of March, 2010 AB „Lietuvos geležinkeliai“ together with the embassy of Lithuania in Finland organized an international conference “Finnish and Lithuanian carriers and forwarders cooperation opportunities”.
 - On the 10th of June, 2010 AB „Lietuvos geležinkeliai“ together with the Lithuanian Ministry of Foreign Affairs organized a conference „ Russian and Lithuanian logistics, forwarding and transport business experience and cooperation opportunities “ in the General consulate of the Republic of Lithuania in St. Petersburg;
 - On the 11th of November, 2010 AB „Lietuvos geležinkeliai“ together with the embassy of Lithuania in Belarus organized a conference “Belarus and Lithuanian cooperation strengthening in transport and logistics” in Minsk;
 - On the 31st of March, 2011 AB „Lietuvos geležinkeliai“ organized a conference “Train “Viking”. Intermodal solutions, development and perspectives” in Vilnius, which first of all was intended for the search of new Lithuanian business and transport service contacts with business and transport service representatives from the Black Sea region. A cooperation memorandum was signed by AB “Lietuvos geležinkeliai” and an independent Turkish industry and business association „MUSIAD“, which declares interest in project “Viking”;
 - On the 2nd-3rd of April, 2011 a meeting with the representatives of Ukraine’s administration and the leaders and members of Ukrainian international forwarders and transport-forwarders companies association was organized by AB “Lietuvos geležinkeliai” and the national Lithuanian forwarder association “Lineka” in the embassy of Lithuania. It was consulted how to simplify customs procedures in the ports of Odessa (Ilyichevsk) especially for transit goods transported through this port, therefore directing more good flows through this port.
- The development of “Viking” is going to be enlivened by the establishment of logistic centres in Vilnius and Kaunas, where unified services for railway and motor transport will be served. Additional goods flows will be attracted by the expected container pitch in Sestokai station. Both of these versions open up possibilities for additional good flows in the development of project “Viking”.

Threats

- Obstacle abundance and political tension in the Caucasus region make the TRACECA transport corridor less attractive because of the higher risk levels.

- The development of project “Viking” will not be successful if the obstacles in ports of Odessa and Ilyichevsk and countries of Caucasus are not eliminated, if Ukrainian shipping company “Ukrferry” keep the high tariffs policy, if good flows from Ukraine to Klaipeda do not increase.
- There may be negative effects on trade between the Baltic Sea and the Black Sea regions and goods transport by train “Viking” extents by the financial – economic crisis in the Southern Europe. Then the development of the project will slow down.
- If the EU transport “right price” policy is not implemented decidedly, the costs for the society are not estimated correctly and corresponding taxes are not introduced for the goods carriers, the development of “green” transport corridors will be paralyzed and intermodal goods transport by railways market shares will not increase at the rates, which are determined in the EU transport policy “White Paper”.

As we see, there are enough of strengths and weaknesses for the development of the shuttle train “Viking”, therefore efforts and resources will be needed in order to justify the best practice example name and to ensure the further development. However, there are plenty of possibilities and directions for development. It is important to emphasize that cooperation at a global level by a grown number of interested parties in the East – West transport corridor and political support provide favourable assumptions for goods transport flow increase and development of the intermodal train “Viking” services.

6. SWOT analysis of new shuttle trains from Klaipeda / Kaliningrad / Vilnius to Moscow, Kazakhstan, China and other Eastern countries;

Trade extents between the Baltic Sea region countries and Russia, Central Asia and Far East grow constantly. The most attractive trade partners to the countries of the Baltic Sea region by trade extent growth are Russia, Kazakhstan and China.

In this situation, a transport corridor, which continues through the territories of a few countries, including members and non-members of the EU, is analysed. Even though railway transport service market is being liberalized globally, but goods transport services in Eastern countries are provided by integrated national railway transport companies, which in principle help to ensure the functionality of the railway transport corridor. Therefore, inner strengths and weaknesses of the corridor's SWOT analysis will cover all the aspects of functionality and outer opportunities and threats will glance at the environment, which is associated with the functionality of the corridor.

Assessing the inner and outer factors we will study geographical, legal, economic, ecologic, social, technological, informational, communicational and political aspects.

Strengths

Analysis of development of routes to Moscow, Kazakhstan, China and other Eastern countries provides strengths of the project, a part of which are analogous to the ones provided in the shuttle train "Viking" analysis:

- An increasing global goods transport service demand is opportune to the projects of shuttle trains eastward from Klaipeda/Kaliningrad. China's, Kazakhstan's, Russia's and other countries' business structures are interested in intermodal good transport between Europe and Asia.
- Established and active Trade and economic and science and technical cooperation intergovernmental committees of Lithuania and Belarus, which studies transport issues, also examines the opportunities of shuttle train between Lithuania and Kazakhstan (with a possibility to continue to China) development in a political level.
- A constant forum of Russian and Lithuanian railway transport companies for problematic transport question solving is active. Separate problematic questions are solved by establishing work groups, which analyse the situation, negotiate and provide solutions. AB "Lietuvos geležinkeliai" signed a science – technical cooperation agreement with the Russian Railway Science - Research Institute on the 23rd of May, 2011.
- A widely developed 1520 mm width track railway network provides assumption for goods transport in the whole East – West transport corridor. The geographical situation of the railway corridor allows transporting goods from the

eastern Baltic Sea ports to the most important cities and logistic centres of Russia and Central Asia countries. Overloading is needed only when goods are transported to China.

- The infrastructure of 1520 mm width gauge railway network is adapted to goods transport services:
 - The main railway lines are adapted for heavyweight train, which weigh up to 6000 tonnes and are 1000-1100 m long, traffic (TRANSIB trunk-line allows transporting trains, which weigh up to 9000 tonnes);
 - Most of the main railway trunk-lines (railway corridors) in the CIS countries are electrificated, therefore goods transport to long distances provides low pollution levels;
 - Sorting, overloading stations and intermodal terminals are situated optimally in the railway network.
- 1520 mm width gauge railway network was centrally developed, therefore the technical – technological interaction is good enough because of the harmonized legal norms:
 - Equal technical interaction rules are valid in the whole railway network;
 - Equal goods and wagon transfer rules are valid in border stations;
 - Equal wagon, which belong to the general wagon park, usage and payment for the usage rules are valid;
 - Legal interaction issues are solved, the improvement and examination of valid rules is determined centrally by the Council of Railway Transport (CRT) in the 1520 mm width gauge railway system.
- Favourable agreements between Lithuania and Belarus for the smooth intermodal good transport across the EU border are:
 - Procedures of customs and EU – Belarus border crossing are simplified;
 - Information about the transported goods (bills of loading) are transferred electronically to the border station and other customs or border control services in advance;
 - A copy of the loading bill is used as a customs declaration.
- Active efforts by AB “Lietuvos geležinkeliai” and strong political support for the search of new shuttle train launching and development possibilities:
 - Agreed to launch a new shuttle train “Saulė” on the route Klaipeda – Dostyk with a prolonging to China. The launch of the train is supported by the intergovernmental trade, economic, science and technical cooperation committee and the agreement was approved by the presidents of Lithuania and Kazakhstan during the official visit in Astana on 5th – 7th of October 2011. The train already finished a test drive on an

- adjusted route from Chongqing in China through Kazakhstan, Russia, Belarus, Lithuania, Poland and Germany to Antwerp in Belgium in 18 days.
- Negotiations between AB “Lietuvos geležinkeliai” and a work group of Russian railway company for shuttle train “Mercury” re-launch on the route Klaipeda/Kaliningrad – Moscow. A test drive is due to in the end of 2011;
 - A fast agreement was reached on shuttle train Klaipeda – Afghanistan. NATO goods are transported to Afghanistan only when they are delivered to the port of Klaipeda.
 - These new projects confirm a strong focus on the practical creation of “green” corridors, because ecological advantages are obvious, when goods are transported to long distances and in large amounts, in comparison with motor transport (according to the data displayed in the strengths of project “Viking”).
 - 1520 mm width track railway network is developed in the main directions:
 - Lithuanian railways implement railway infrastructure improvement projects. The improvements are implemented or planed in the fields of single track line changing into double track line, reconstruction of tracks, buildings and signalisation systems for faster and heavier railway transport, main railway lines electrification, advanced IT systems and modern traffic control systems;
 - Belarus gives great attention to the development of railway transport – goods transport by railways permeability programs are implemented, infrastructure, border stations, traffic control and signalling systems are being modernized;
 - Russia has declared an ambitious railway transport development program, which intends to launch high-speed trains in some stretches. Furthermore, railway modernization programs are implemented or planed in the fields of the quality of infrastructure and signalling systems, advanced control and IT systems, therefore good movement in separate corridors can be operatively tracked;
 - Kazakhstan gives great attention to the improvement of railway connection with China, creation of beneficial conditions for good transport between these countries, so that good flows from China to Europe by land transport would increase.

Weaknesses

The development of shuttle trains from Klaipeda/Kaliningrad to Moscow, Kazakhstan, China and other East countries is disturbed by many factors:

- Long distance route shuttle train project implementation needs a long and thorough preparatory work – ensuring political support and checking the liveliness of the route by launching test drives with intermodal goods.
- Difficult to harmonize container transport conditions and tariffs on new routes. The longest and most difficult negotiations are with Russia.

- A uniform bill of lading according to SMGS and CIM legal norms is not installed in the whole corridor yet, therefore it is difficult to accomplish information trade procedures between separate participants of the logistic chain.
- Negotiations and separate bilateral or multilateral agreements on simplified customs and border crossing procedures between all of the route countries.
- Difficulties because of the variety of information systems appear. Information systems that are used in the 1520 mm width track railway network do not ensure operative transported goods tracking. The only goods tracking information is provided by already passed stations.
- Just as in the case of project “Viking”, effective technologies of trailer, semitrailer loading onto and off platforms are not installed in most of the intermodal terminals and custom and border crossing procedure simplification for trailers and semitrailers, carried by rail, question is not solved in some of the countries, lack of motor transport carrier will to transport trailers and semitrailers by railways is felt, an unformed or sparse wagon park (a larger one only in Russia) is an obstacle to the assimilation of this market segment in the whole EWTC.
- Some of the goods, such as electronic products, cannot be transported from China during the cold season of the year.

Opportunities

A more active involvement of all parties interested in East – West transport corridor development give hope that the “green” EWTC is becoming an active part of a logistic chain:

- Political agreements and yearly meetings between East – West transport corridor countries help to eliminate obstacles and solve shuttle train development issues in the whole corridor;
- Project “East – West transport corridor” and established East – west transport corridor association (EWTC) essentially improved the possibilities of the intermodal train development, because the cooperation was started at a global level of East – West transport corridor countries, including more participants, which are interested in transport service development. EWTC organized events promote the development of shuttle trains:
 - Past events in Klaipėda – Karlshamn (7-10th of November, 2010) and Odessa (27-28th of May, 2011) and other planned measures not only spread the information about EWTC abilities, but also allows business and transport chain participants to communicate directly, find new connections, use existing transport routes or search for new goods transport schemes.

- Russian and Lithuanian railway work groups for the renewal of shuttle train “Mercury” give hope. If test drives in 2011 will be productive, the route from Klaipeda/Kaliningrad to Moscow will be restarted.
- Negotiations on the launch of shuttle train between Lithuania and Kazakhstan ended successfully. Intermodal train “Saulė” test drive from China through Kazakhstan, Russia, Belarus and Lithuania to Europe was completed. Prolonging the shuttle train route Klaipeda – Dostyk to China and Eastern Europe confirms the possibilities of new flexible logistic schemes in the EWTC.
- A successful start of container goods transport from Klaipeda to Afghanistan by NATO goods transport program. This logistics chain confirms the importance of international political agreements on the global development of new transport routes.

Threats

- If the EU transport “right price” policy is not implemented decidedly, the costs for the society are not estimated correctly and corresponding taxes are not introduced for the goods carriers, the development of “green” transport corridors will be paralyzed and intermodal goods transport by railways market shares will not increase at the rates, which are determined in the EU transport policy “White Paper”.
- Inability to apply a unified intermodal goods transport tariff in the whole route from China to Lithuania, because of Russia’s aim to take over and manage transit goods flows. Larger transit through Russia tariffs may strongly disturb a wider EWTC development.
- Obstacle abundance and political tension in some countries of the Central Asia make some of the routes of the transport corridor less attractive because of the higher risk levels.

SWOT analysis showed that there are many both, strong and weak, positions for the development of shuttle trains in EWTC, therefore efforts, resources and time will be needed in order to implement new shuttle train projects in the global Europe – Asia transport service market. There are really a lot of opportunities for successful development. It is important to emphasize that cooperation at a global level by a grown number of interested parties in the East – West transport corridor and political support provide favourable assumptions for goods transport flow increase and development of the intermodal trains “Saulė”, “Mercury” and others services.

7. Conclusions

Identified strengths and weaknesses of the East – West transport corridor in two main directions (from Klaipeda/Kaliningrad towards the Black Sea and towards Russia, China, Central Asia and other countries from Far East) and opportunities and threats in this global area help to discuss strategic choice main direction of development shuttles.

Active connections between business structures from the Baltic and the Black Sea regions and strong political support, conferences, business days, meetings, negotiations and cooperation agreement signing show that the interest in shuttle train “Viking” project has increased during the last few years. The potential of strengths is the opening of project’s development opportunities. Therefore, discussing the question whether the strengths will help to use the opportunities it is possible to claim that the strategic choice is obvious – more effort should be put into the development of shuttle train “Viking”, because it already shows an example of the best practice. Lithuania with Belarus and Ukraine implemented a successful shuttle train “Viking” project, which was acknowledged as an example of the best practice and was awarded by the European Intermodal Transport Association (EITA). Segment of intermodal transport market grew fast and slowed down only during the financial – economic crisis. Success of this project was determined by a balanced implementation model, which joined the efforts of railway organizations, ports and carriers by railways from all three countries and was strongly supported by governmental institutions from all these countries – initiative from beneath and the support from the top model was applied. Taking to regard that Lithuanian railways are an integral part of the 1520 mm width gauge railway transport network, good interactions between railway transport companies are ensured. Gained experience of cooperation with neighbour countries and learned lessons while implementing project “Viking” show the potential of strengths and strengthens the strategic position – using favourable conditions for the development of this project.

Answering the question whether the strengths will help to avoid weaknesses we can state that efforts are already put into removal of obstacles in Ukraine, negotiations between business structures and government institutions on lower tariffs and larger number of open railway stations for goods, that are transported by train “Viking”, lower tariffs for intermodal goods transported by railway ferries of “Ukrferry” company and simplification of customs procedures in the ports of Ukraine. Mutual effort will give results eventually.

Most of the obstacles in the region of Caucasus will be automatically removed, when those countries join the development of project “Viking”. For example, issues are dealt with in the negotiations with Georgia and Moldova, which are in the ending stage.

A quite more difficult situation is with the threats of the financial – economic crisis, which is much more difficult to influence. However, the risk levels in the countries of TRACECA corridor and Turkey are low enough to develop project “Viking”.

It is important to mark that factors, which will help to avoid threats, include the activity of EWTC association. This association strongly contributes to the spreading the idea of stable and ecologic transport services. Therefore, it is only a question of time, when the importance of “green” transport corridors will be understood by business structure, government

institutions and the whole EWTC society and mutual efforts will become a norm for the development of shuttle trains. This is in principle demonstrated by the yearly openings of new shuttle train routes.

Project “Viking” was implemented despite of many difficulties, which were encountered while transporting intermodal goods between the Baltic Sea and the Black Sea regions. Existing weaknesses already cannot disturb the development of the project, although they decrease the ratio of favourable opportunity usage. Therefore, participants of the logistic chain and government institutions not accidentally put efforts into the removal or changing of weaknesses so that they would become the strengths of the project. Such strategy provides assumptions for a sudden decrease of the number of weak parts of the chain, which interfere the development of the project. For example, Lithuanian and Ukrainian customs agreed that Lithuanians will train the officers of Odessa and Ilyichevsk customs how to carry out modern and simplified customs procedures. In addition, Ukrainian logistics company “Plaské” according to a contract with AB “Lietuvos geležinkeliai” became the operator of train “Viking” and really started to improve the organization of cargo processing in the ports of Odessa and Ilyichevsk. Fast and smooth train “Viking” intermodal cargo processing and simplified customs and border crossing check procedures may become the strengths of the project. Cooperation of AB “Lietuvos geležinkeliai” and company “Plaské” helped to complete a test drive of shuttle train “Viking” with container goods from Turkey through the Black Sea and further to Lithuania. Electronic seal and GPS equipment were used for transporting and tracking goods.

Project “Viking” weaknesses do not affect its threats and the risks of the project development do not increase. The publishing of EU transport development White Paper strengthened the assumptions for “green” transport corridor creation. Higher goods transport by motor transport tariffs should be applied, when implementing the “right price” principle. This factor lowers the risks of lack of demand and slow shuttle train development. Therefore it is likely that there will be a fast growth of trailer transport by railways demand beside the growing extents of intermodal goods transport.

SWOT analysis of the shuttle train “Viking” development allows concluding that the strategic choice presupposes to give most of the attention to the potential of strengths in order to use favourable opportunities. In addition, it is important to remove project’s weaknesses, changing them into strengths where possible. Evaluating the tendencies of the Baltic and the Black Sea region trade and transport market increase and conclusions of the SWOT analysis, these main project “Viking” development directions can be chosen:

- Seek to increase goods flows between intermodal terminals of Ukrainian railways and the port of Klaipeda;
- Seek to extend the route of train “Viking” to Turkey
- Seek to extend the route of train “Viking” to Georgia and further through the countries of Caucasus;
- Develop trailer and semitrailer transport by railways in the whole shuttle “Viking” route;

Discussion of shuttle train launch on the routes Klaipeda/Kaliningrad – Russia, Kazakhstan, China and other Central Asian and Far East countries SWOT analysis results will show that existing strengths differ little from the advantages of train “Viking” development.

Electrified main corridor railway network and infrastructure parameters, which allow driving of 6000 tonne weight trains, are especially attractive for goods transport to long distances in economic and ecologic aspects. Goods flows could be significantly larger in this global market, when the potential of the markets of the Baltic Sea region, Russia, Kazakhstan and China are discussed. Large number of different shuttle train routes can be organized in a global area. Usage of opportunities by the existing strengths already demonstrates a reached improvement in the implementation of shuttle train projects. Lithuanian and Kazakhstan intergovernmental trade and economic and science and technical cooperation committee decision and a later approval by the presidents of Lithuania and Kazakhstan helped to agree on the launch of a shuttle train between Klaipeda in Lithuania and Alma Ata with an extension to Dostyk in Kazakhstan and to China. Shuttle train “Saulė” test drive from China (Chongqing) through Kazakhstan, Russia, Belarus, Lithuania, Poland and Germany to Belgium (Antwerp) was completed between the 28th of October and 16th of November, 2011. Total driven distance from Chongqing to Antwerp – 10929 km. This distance was driven in 18 days. The operator of the train – company “VPA logistics”. Responsible for goods transport through China – Eurasia Good Transport Inc., through Kazakhstan, Russia and Belarus – LG expedition, through Poland, Germany, Belgium – Hupac.

EWTC association establishment and business, science institution and Authorities from all of corridor’s countries incorporating into its activities helped to combine the interests of logistics chain participants and simplified the implementation of new transport projects. Therefore, the strengths, which were mentioned in the SWOT analysis, not only help to use the available opportunities, but also help to avoid threats. For example, shuttle train “Saulė” transit through the territory Russia was arranged easier, customs and border crossing procedures were simplified. Lithuanian and Belarussian railways in their territories applied competitive train “Viking” tariffs to the shuttle train “Saulė”.

Launch of the train for NATO goods transport to Afghanistan, shuttle train “Saulė” and “Mercury” test drives demonstrate that weaknesses in the East – West transport corridor didn’t disturb using the opportunities and threats were avoided. Projects, which are being implemented, emphasize the potential to use new opportunities and avoid threats and also create assumptions for the development of new projects. However, we cannot state that the threats, which are named in the SWOT analysis, will not occur in the later steps of EWTC development. There will always remain a threat for particular EWTC project development because of Russia’s aim to take over and manage transit goods flows.

Conclusions of the SWOT analysis for the development of shuttles in EWTC corridor for direction Klaipeda/Kaliningrad to Russia, Kazakhstan, China and other East countries helped select the shuttles:

- Revival of shuttle train Klaipeda/Kaliningrad – Moscow project;
- Implementation of shuttle train Klaipeda – Alma Ata (Kazakhstan) with an extension – Urumqi (China) project;
- Maintenance of NATO good transport to Afghanistan project.

Analysis of the global market showed that favourable global market assumptions for shuttle trains eastward from Klaipeda/Kaliningrad development exist, because trade extents in quantitative expression (tonnes) between the Baltic Sea region and the Black Sea region,

Russia, Central and Eastern Asia increase constantly. Intermodal good transport is getting more and more popular because good delivery from door to door can be most effectively organized using the advantages of various modes of transport. More and more goods are transported in containers and a clear tendency of good transport in containers increase is noticeable, therefore shuttle train projects for a faster such good delivery to a designated place are implemented.

About 10% of containers, which are transported by motor transport through the port of Klaipeda, of Lithuania's market, about 50% of the market in Belarus, not less than 70% in Russia's market and about 70% in the market of Ukraine can be transported by railways. Efforts to increase good flows by railway ferries Sassnitz – Klaipeda and Sassnitz – Baltijsk (Russian federation) naturally will increase container transport by railways flows in the direction of Klaipeda and Kaliningrad. Since increasing intermodal goods flows can be combined in Lithuania, assumptions for the launch of new shuttle trains eastward from Klaipeda/Kaliningrad are possible.

Another reserve for shuttle train development is trailer and semitrailer transport by railways. This question is especially relevant to the creation of “green” East – West transport corridor.

It is strategically very important that development of shuttles in the “green” corridor from viewpoint of market integration:

- ✓ promotes international cooperation, political and economic interest coordination and trades between the countries of the corridor;
- ✓ helps to create new more effective logistics schemes based on the highest usefulness of each transport mode and synergy of interaction between different modes of transport;
- ✓ encourage greater use intermodal rail freight;
- ✓ encourages to improve legal – administrative railway transport business environment and harmonize tariffs policy;
- ✓ encourages the development of interactions between segments of railway transport of the countries and the improvement of railway transport technical – technological parameters;
- ✓ encourages to harmonize railway transport information and management processes;
- ✓ encourages to improve develop intermodal terminals;

SSGG analysis showed that perspective and strategically important development directions of shuttles from Klaipeda/Kaliningrad eastward would be:

1. “Viking” train project development by opening more stations (terminals) in Ukraine, prolonging the route to Turkey and the countries of Caucasus, absorbing market share of transport trailers and semitrailers by rail;
2. Revival of shuttle train Klaipeda/Kaliningrad – Moscow project;
3. Implementation of shuttle train Klaipeda – Alma Ata (Kazakhstan) with an extension – Urumqi (China) project;
4. Maintenance of NATO good transport to Afghanistan project.

The listed projects are important to the development of the East – West transport corridor. Initiatives focused on implementation of “green” transport corridor are based on the shuttle launch projects over long distances between Europe and Asia. The new listed logistics schemes already demonstrate the viability of the East – West transport corridor and create preconditions for increasing of the smooth flow of goods in the corridor.

8. References

1. White paper (COM (2011) 144 final): Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system.
2. COM (2008) 433 final. Greening Transport. <http://eur-lex.europa.eu/>
3. COM (2006) 314 final. Keep Europe moving – Sustainable mobility for our continent. Mid-term review of the European Commission’s 2001 Transport White Paper. <http://eur-lex.europa.eu/>
4. COM (2007) 607 final. Freight Transport Logistics Action Plan. <http://eur-lex.europa.eu/>
5. COM (2007) 608 final. Towards a rail network giving priority to freight. <http://eur-lex.europa.eu/>
6. COM (2009) 279 final. A sustainable future for transport: Towards an integrated, technology-led and user friendly system. <http://eur-lex.europa.eu/>
7. COM (2009) 44 final. GREEN PAPER TEN-T: a policy review. Towards a better integrated trans-European transport network at the service of the common transport policy. <http://eur-lex.europa.eu/>
8. Project No 506391 BRAVO Final Report for Publication (2007) – Brenner Rail Freight Action strategy aimed at achieving a sustainable increase of intermodal transport volume by enhancing quality, efficiency and system technologies. www.bravo-project.com
9. Eurostat database. <http://appsso.eurostat.ec.europa.eu/nui/>
10. Calculated according to data of Eurostat: <http://appsso.eurostat.ec.europa.eu/nui/>
11. Eurostat database. <http://epp.eurostat.ec.europa.eu/portal/page/portal/transport/data/database>
12. Data of JSC “Lithuanian railways”.
13. Литва – идеальный центр дистрибуции товаров в страны Центральной и Западной Европы используя „транспортный коридор Восток-Запад II (EWTC II)”. Presentation of Stasys Gudvalis, Deputy general director of JSC “Lithuanian railways”. EWTC association forum. Odessa, 27-05-2011.
14. East West Transport Corridor Association (EWTC). Presentation of Dr. Algirdas Šakalys, EWTC association forum. Odessa, 27-05-2011. President of EWTC Association, Advisers to the Prime Minister of the Republic of Lithuania. EWTC association forum. Odessa, 27-05-2011.
15. Литовская национальная ассоциация экспедиторов “LINEKA”. Presentation of Tautginas Sankauskas, President, Lithuanian National Freight Forwarders Association (“LINEKA”, Lithuania). EWTC association forum. Odessa, 27-05-2011.
16. East West Transport Corridor Association. Presentation of Bengt Gustafsson, Region Blekinge Senior Advisor. EWTC association forum. Odessa, 27-05-2011.
17. Presentation BELINTERTRANS „Shuttle train VIKING effective solution of transport tasks“ in conference „PROJECT – “VIKING”. INTERMODAL SOLUTIONS, DEVELOPMENT AND PROSPECTS“, Vilnius, 31th of March 2011.



18. Arūnas Urbonas - Presentation of Sassnitz port in WP4 partners meeting of the Project EWTC II in Vilnius 24th of February 2011.
19. 20. A. Vasilis Vasiliauskas. Theoretical and practical aspects of intermodal transportation development. VGTU TIF TVK. Presentation in conference „PROJECT – “VIKING”. INTERMODAL SOLUTIONS, DEVELOPMENT AND PROSPECTS“, Vilnius, 31th of March 2011.
20. Роман Гонопольский. Автомобильно-железнодорожные паромные линии СК "Укрферри" и Пароходства „Болгарский Морской Флот" на Черном море. EWTC association forum. Odessa, 27-05-2011.
21. Купреев С.И. Транзитный потенциал Республики Беларусь в рамках международных транспортных коридоров. EWTC association forum. Odessa, 27-05-2011.
22. Черноморский регион – ключ к развитию перевозок в направлении Север-Юг и Восток-Запад. Presentation of Ivan Liptuga, Vice-President of JSC Plaske (Ukraine). EWTC association forum. Odessa, 27-05-2011.
23. Совершение таможенных операций в отношении товаров, перемещаемых через территорию Республики Беларусь в составе комбинированного транспорта «ВИКИНГ». Presentation of Vladimir Orlovski, State Customs Committee of the Republic of Belarus. EWTC association forum. Odessa, 27-05-2011.
24. SE Sea Commercial Port of Ilyichevsk. Presentation of Victoriya Marchenko, Illichivsk Sea Commercial Port (Ukraine). EWTC association forum. Odessa, 27-05-2011.
25. Мультимодальные перевозки контейнерных грузов. Presentation of Nicolai Barbascumpa, Head of Foreign Relations of Moldova Railways (Moldova). EWTC association forum. Odessa, 27-05-2011.
26. LITHUANIAN RAILWAYS – reliable partner in the corridor of the VIKING. Presentation of Albertas Šimėnas, Deputy Director General of JSC “Lithuanian Railways” in conference „PROJECT – “VIKING”. INTERMODAL SOLUTIONS, DEVELOPMENT AND PROSPECTS“, Vilnius, 31th of March 2011.
27. Контейнерные перевозки Грузии. Presentation of Grigol Jincharadze, Deputy Director of Freight Transportation Directorate of JSC “Georgian Railways” in conference „PROJECT – “VIKING”. INTERMODAL SOLUTIONS, DEVELOPMENT AND PROSPECTS“, Vilnius, 31th of March 2011.
28. Ekspedijavimo patirtis, vežant krovinius intermodaliniu transportu. Presentation of Tautginas Sankauskas, President Lithuanian National Freight Forwarders Association (“LINEKA”) in conference „PROJECT – “VIKING”. INTERMODAL SOLUTIONS, DEVELOPMENT AND PROSPECTS“, Vilnius, 31th of March 2011.
29. VIKING TRAIN - интермодальная связь между балтийским и черным морем. Presentation of Tomas Keršis, Director of department JSC „Lithuanian railways“, in conference „PROJECT – “VIKING”. INTERMODAL SOLUTIONS, DEVELOPMENT AND PROSPECTS“, Vilnius, 31th of March 2011.