transport economics and organization

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### INFORMATION SYSTEM FOR FREIGHT SERVICE IN A TRANSPORT CORRIDOR

EUREKA LOGCHIAN - POLCORRIDOR project considers creation of a new intermodal transport corridor north-south and introduction of the Blue Shuttle Train from Świnoujście to Vienna. Computer system projected in order to support Blue Shuttle Train enhances organisation of freight transport and customer services in this corridor. Furthermore, it means higher level of competitiveness of freight transportation comparing to other transport corridors and thus increasing the role of Poland as a north-south transit country.

# SYSTEM INFORMATYCZNY DO OBSŁUGI PRZEWOZÓW ŁADUNKÓW W KORYTARZU TRANSPORTOWYM

Projekt EUREKA LOGCHIAN – POLCORRIDOR dotyczy utworzenia nowego intermodalnego korytarza transportowego północ – południe i uruchomienie pociągu Blue Shuttle Train relacji Świnoujście – Wiedeń. Projektowany system informatyczny do obsługi pociągu Blue Shuttle Train umożliwi lepszą organizację przewozu i obsługą klientów w tym korytarzu transportowym. Pozwoli to na zwiększenie konkurencyjności przewozów ładunków tym korytarzem transportowym w stosunku do innych korytarzy transportowych i zwiększenie roli Polski jako państwa tranzytowego w relacji północ – południe.

### 1. INTRODUCTION

As a member of European Union, Poland plays an important role as a transit country. Because of the wide net of railways, capacity of which is not fully used, there is a possibility of increasing the transit freight transport. In order to take more advantages from the location our country in the centre of Europe, the process of railway lines has been initialised to meet technical standards of international agreements AGC and AGTC. Presently the works are concentrating on E20 and E30 lines. More works are planned on the north-south lines (E59 and E65). These lines connect Polish sea ports (Gdańsk, Gdynia, Szczecin, Świnoujście) with countries of Central and Southern Europe and can be especially useful as transit corridors between Scandinavian countries (Finland, Sweden, Norway) and the countries of Southern

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and Eastern Europe. Poland can become an important country for transit between North and South. It is possible to shift some transit loads from Germany, especially regarding the process of congestion observed in German transport net, both road and rail.

#### 2. EUREKA LOGCHIAN – POLCORRIDOR PROJECT

EUREKA LOGCHIAN –POLCORRIDOR project considers creation of a new corridor for freight transport between Scandinavian countries and South-Eastern Europe. The project has been conducted since 2001.

The basic objective of the project is to introduce the rules and conditions of creation as well as implementation and commercial assessment of the new transport connection in the system of intermodal sea-land chain of transport. The key element of the transport system POLCORRIDOR is Blue Shuttle Train scheduled between two intermodal hubs located in Świnoujście and Wien. These hubs cover the distribution of loads to the final receivers. Proposed variants of routes are presented on the figure 1.

This project engages research and business partners from Czech, Finland, Norway, Poland, Sweden and Italy. The leader of the project is TOI (Transportokonomisk Institutt) from Norway. Polish research partners work as a consortium, which includes:

Technical University of Cracow - the leader,

- Railway Scientific and Technical Centre,
- OBET,
- University of Szczecin.



Fig.1. Proposal "Blue Shuttle Train" routes

## 3. INFORMATION SYSTEM FOR FREIGHT SERVICE IN A TRANSPORT CORRIDOR

Information system for freight service in a transport corridor (set WP6) is one of the most important elements of the POLCORRIDOR projects. The system enables to provide service of the package from origin to destination. In the corridor considered in POLCORRIDOR project, the route of freight transportation is complex and involves many countries. Loads will be transported with different means (sea, rail road transport).

In the corridor mentioned above, the basic element of transport chain is going to be Blue Shuttle Train from Świnoujście to Vienna. Loads posted from Scandinavian countries will get with sea transport to Ystad port. Świnoujście will become a concentration point for freight from and to Scandinavian countries and the freight will be reloaded to the train to Vienna. Vienna hub is going to be a freight concentration point for South-Eastern Europe. From Vienna the loads will be distributed with rail or road transport. The above description suggests that the persons engaged in freight transport are:

- forwarding agents
- > skippers
- sea ports managements
- > rail operators
- > intermodal terminal operators
- > road operators.

The diversity of participants of transport process is the source of some organizational problems. Creation of an information system for the considered transport corridor integrates particular participants and enables to create one homogeneous logistic transport chain.

Information system POLCORRIDOR integrates the systems of particular participants of transport process and enables to exchange information about transported loads as well as transport documents

The information system gives also possibility to trace the loads on the whole route of transport. It enables point tracing based on notification of the check points crossing. It is also planned to use the real time tracing system with GPS/GSM technology.

Start-up of the system makes it possible to optimize the organization of transport process, that means better usage of transport means ( locomotives, cars, road vehicles, etc.) and reloading points (intermodal terminals, etc.).

All of these activities are aimed at providing price-competitive, high quality transport and logistic service in the transport corridor North-South crossing Poland.

#### 4. SUMMARY

POLCORRIDOR project was introduced in order to prepare some rules and conditions as well as commercial implementation of a new intermodal transport connection as a sea- land transport chain between Northern Europe and countries of South-Eastern Europe and northern Italy crossing Poland as a transit country. Commercial implementation of this connection contributes to increasing the amount of freight transported across Poland, thus making the role of our country as a part of European transport map more significant. Creation of a transport connection without information system is useless. Only modern telematic technologies used in Blue Shuttle Train operating process and the whole transport connection North-South give opportunities to provide a high quality transport and logistic service. Commercial implementation of POLCORRIDOR project will be an example of telematic solution used in transport systems.

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