TEN-NAXIS - ANALYTICAL SUPPORT FRAMEWORK TO MONITOR THE IMPLEMENTATION OF THE INFRASTRUCTURE AND "SOFT" MEASURES PROPOSED BY THE HIGH LEVEL GROUP

CLIENT: *European Commission - Directorate-General Energy and Transport*

YEARS: *2006 – on going*

DESCRIPTION OF ACTIVITIES

Objectives of the project

In 2004, the European Commission decided to establish a High Level Group on the "extension of the major trans-European transport axes to the neighbouring countries and regions". The Group identified five major trans-national axes that extend and complement the major axes of the trans-European transport network by interconnecting them with the networks of the neighbouring countries. One of these axes is the Northern Transport Axis, connecting the Scandinavian countries, Baltic countries Germany and Poland with Russia and Belarus. The objective of this project is of developing an analytical framework to monitor the implementation of the infrastructure and of soft measures that aim at making transport along the axes more rapid and effective.

Methodology

The project is based on two major parts of work:

a) An analysis of the infrastructure along the Northern Axis

b) Modelling of the transport demand

As far as the infrastructure analysis is concerned, it covers all transport modes with a particular focus on rail, road and border crossings facilities. The analysis of the current conditions has provided information on the physical state as well as the quality of the infrastructure using several indicators (e.g. number of axis, capacity, allowed speed, etc.). The investments and financial commitments have been quantified using different sources (public budgets, loans from international financial institutions, private sector contributions). Finally, the analysis of physical and non-physical bottlenecks has taken into account transport system performance, using indicators like transport speed, transport time, time delay and unreliability aspects of transport operations.

The second task, consisting in modelling the transport demand, is made of two main subtasks: building exogenous scenarios and transport modelling.

Exogenous scenarios has started from gathering information about the current and forecast status of the economies in the study area. Then a macro-economic framework has been produced to describe the interrelationships between the various macro-economic variables. Finally a minimum and maximum scenario has been defined for each variable. The most probable combination of economic scenarios has been selected and its impact on trade volumes at different geographical levels has been derived. These trade volumes has been included as background assumptions for the estimation of freight flows matrices that will feed the transport model together with a passenger demand matrix. In the second subtask, the FRISBEE transport model will be used to simulate interaction between the transport infrastructure, costs and demand.

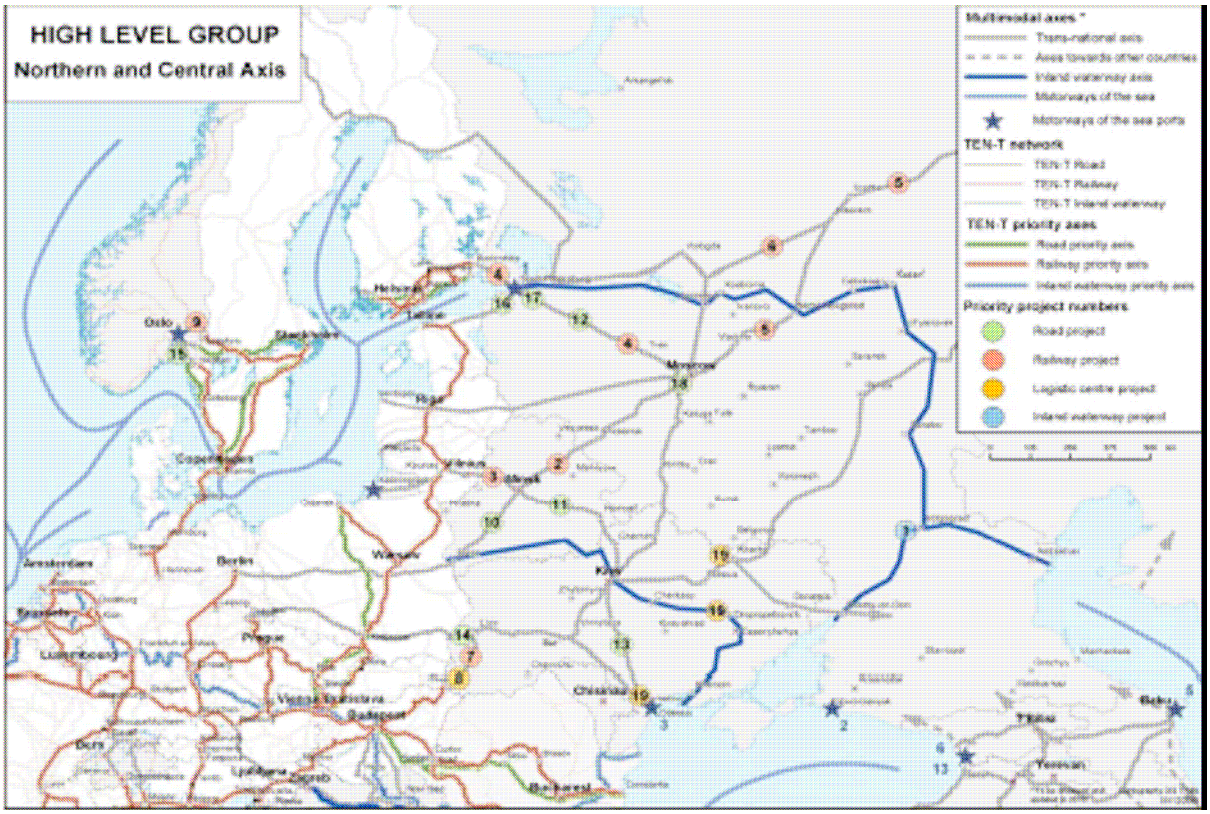
The system will be calibrated to correspond the observed flows at the main borders etc. The future matrices will be assigned on the networks and the results analysed (costs, bottlenecks, impacts of possible policies etc.).

The role of TRT

TRT is responsible for the estimation of the freight flow matrices for the base year and for the future years (2010 and 2020). The estimation of the freight demand flows between the regions of the study area has been based on the available data concerning economic and transport flows in the area and on the forecasts of the Regional-Economic Model of the SCENES transport model. The available data together with the exogenous scenarios has been used for the quantification at aggregate level, while the SCENES data has been used for splitting forecasts between regions and freight groups.

The Consortium

The project is led by WSP LT Consultant ltd (Finland). The other partners are: MATREX (Finland), ANSERI (Finland), TRT Trasporti e Territorio (Italy), WSP Group Policy and Research Unit (UK)


HIGH LEVEL GROUP
Northern and Central Axis
Multimodal axes *
Trans-national axis
Axes towards other countries
Inland waterway axis
Motorways of the sea
Motorways of the sea ports
TEN-T network
TEN-T Road
TEN-T Railway
TEN-T Inland waterway
TEN-T priority axes
Road priority axis
Railway priority axis
Inland waterway priority axis
Priority project numbers
Road project
Railway project
Logistic centre project
Inland waterway project
Oslo
Stockholm
Helsinki
Tallinn
Riga
Vilnius
Minsk
Moscow
Copenhagen
Berlin
Warsaw
Kiev
Prague
Luxembourg
Vienna
Bratislava
Budapest
Chisinau
Bucharest
Ljubljana
Zagreb
Tbilisi
Yerevan
Baku