OVERALL IMPACT OF A NEW TRANSPORT CONNECTION OR THE IMPROVEMENT OF THE CAPACITY OF AN EXISTING ONE

WHAT'S THE PROBLEM?

The overall impacts on sustainability of building new infrastructure for transport or improving the capacity of an existing one are not really known. Short-term analyses inside the transport system (impact on modal split etc.) are carried out but long term impacts on the land use pattern, trip length and person/vehicle kilometres are not recognized nor investigated.

This is the basic question of the transport policy: can the problems be solved by building new infrastructure, or is this only causing more problems of the same kind by increasing transport need and encouraging urban sprawl? Every urban area faces projects improving the transport network continually; there should be a comprehensive framework for the evaluation.

TIME AND SPACE SCALES' CHARACTERISTICS?

The time scale varies, but in most cases the analyses should cover the total life span of the investment, that is from ten to even one hundred years.
The problem developed here is concerning the inception of transport connection modification, until the design assessment of the solution chosen.

Stage of project when tool can be used Please mark arrow/s for time period when tool can be used	 **inception of project idea** **Design** **Design assessment** **Construction** **operation** **demolition**

The space scale is often constructing an individual structure (road, new public transport line, etc.), but the same problems occur on neighbourhood or regional level. Preparing comprehensive transport policies meets the same basic question also on national and European level.
The most relevant scale here is a new regional road or public transport line.

Scale of project that can be investigated using the tool	**Component**	**Building**	**Neighbourhood**	**City**	**Region**
	X				

CONFLICTING AREAS

- The opportunity to get new inhabitants often results in considering urban sprawl beneficial by the distant municipalities
- A new transport line tempts new construction near the line, which can change the area from natural or sparsely built to more urban. For the existing inhabitants this often is a shock.

CASES STUDIES LINK TO THIS KEY-PROBLEM

The Bulgarian case study on a New Bridge over the Danube and the case of Ebbw Valley Railway from UK handle this type of problems, and the Finnish case on Cost-benefit Analyses of Projects handles the way to make decisions.

WHAT SHOULD BE ENHANCED TO IMPROVE SUSTAINABILITY?

All the impacts of the improvement of transport capacity should be recognised and measured or forecasted: the economical impacts on transport costs, land price, housing costs, services needed for the inhabitants etc., the ecological impacts on energy use, pollution, biodiversity

etc. and the social impacts on quality of housing, time spent in traffic, accidents etc. Tools for integrating all aspects and presenting the results illustratively for decision-makers should be available.

A framework for evaluation of this type of projects should be accumulated. Which are the main impacts, how can they be measured, and which are the recommended methods to analyse the overall sustainability on the basis of this knowledge?