

The introduction of mobility rights : a first exploration through the use of a system dynamics model

R. Ramboer and C. Macharis

Ruben Ramboer, Departement of Business Statistics and Operational Research, Free University of Brussels, Pleinlaan 2, M233, 1050 Brussels, Belgium, Ruben.Ramboer@vub.ac.be Tel: 0032/2/629.22.86 & Fax: 0032/2/629.21.86.

Cathy Macharis, Departement of Business Economics and Strategic Management, Free University of Brussels, Pleinlaan 2, M233, 1050 Brussels, Belgium, Cathy.Macharis@vub.ac.be Tel: 0032/2/629.22.86 & Fax: 0032/2/629.21.86.

Abstract

In this paper the socio-economic effectiveness of transferable mobility rights will be analysed through the use of a system dynamics model. Transferable mobility rights are an innovative solution for the mobility problems. The aim is to give a restrictive amount of rights of mobility to the citizens in order to cope with the external effects of transport, such as congestion and emissions. The rights are transferable and as such it can also have a redistributive effect. Economical, social, and ecological goals are coming here together. In order to see the complex interaction between these three dimensions and the effect of the introduction of the system of transferable mobility rights a SD-model is developed. This model will allow to simulate the impact of alternative policy scenarios on the system. These alternatives include the various possible “designs” of the transferable mobility rights system (e.g. possible differentiation of the system according to category in the general population (retired people, working people, ...) or according to time (peak/non-peak,...), etc.