ABSTRACT

The Metropolitan Region of Barcelona (RMB) concentrates 4.5 million inhabitants, more than 2 million jobs. 6.2 million of trips are daily counted in Barcelona, whom 2.3 million belong to private vehicle. A 45% of these trips are inner trips (they start and finish inside Barcelona). The congestion level is really high during peak hours and it generates an added cost for the society. Definitely, these tolls can not be maintained during a long time. The job’s growth and the redistribution of population cause an increase in mobility. Thus, it is necessary to increase the public transport offer, but it is also necessary to establish a group of measures that contribute to reduce the congestion and the pollution levels.

The implementation of a congestion charge is a way of internalising the added cost generated by the congestion, reducing the marginal social cost. Its implementation causes an users flux from the private vehicle to the public transport: it’s a benefit for the global society. This tax is presented as the tool that will allow the rational use of the private vehicle. The envelope of this design is the Infrastructures’ Director Plan for the period 2001-2010. The main possibilities of the tax implantation are described in base to the added congestion costs in the RMB. The dissertation advocate the implementation of a congestion charge on the entries and exits of the urban area surrounded by the Rondas. The amount of the tax can be evaluated in a way than reduces the traffic until a prefixed level, or it can reflect the cost unpaid by the user that it should be internalised, so as to get the optimal equilibrium between the demand and the marginal social cost.

It exists a list of complementary and indispensable measures related to the mobility management so as to implement the tax in a correct and fair way. The challenge for the RMB should be the integration of all the transport modes: the multimode trip in public transport inside the Metropolitan Area and the multimode trip in private vehicle - public transport for the trips that concern the Metropolitan Region, with the help on the Park and Ride where the public transport network is inefficient or where it is not economically sustainable. It is proposed a new definition of the urban parking places using them as a tool who deters users from using their private vehicle for inner trips. The Mobility Offices are defined as the link between the Administration and the citizen, letting them resolve the daily procedures without problems. The creation of special transport services to industrial and commercial estates it is advocated, with the intention of making them also responsible of the management of the trips they generate. The system should be prepared for the arrival of new ways of mobility, more sustainable and innovative.

The Administration has the obligation of starting a public consensus process where all the actors are implicated and where a new definition of the mobility model should be created. The highways system in concession regime should be redefined so as to integrate these companies to the process as service providers. The urban freights distribution should be treated in a global way so as to design a system that minimise the urban operations and maximise its performance.

This is the beginning of a new conception of mobility: it is important to show that public transport is not an element who establish differences between social classes. It establish differences between the different levels of public awareness. The RMB unquestionably is the motor of Catalonia, but if we are not able to change the mobility standard, this development will be the cause of its collapse.