Discussion

Existing situation

The existing situation in many arterial streets in Spain is that they have been designed almost only to optimise accessibility for motorised traffic. Although pedestrians are more numerous than the cars in most streets, the sidewalks are often too narrow, and the possibilities to cross the street is not good enough.

In 1996, the Barcelona Metropolitan Transport Agency made a survey on transport habits in the area, showing that the up to 75% of the trips made inside the municipal borders are made by foot. The publication of these results have helped the traffic planners in the way that the politicians know understand why the pedestrians needs more room.

During the last year the Engineering Department in Girona have counted pedestrians in some of the streets they are going to change in order to convince the stakeholders that reducing the traffic area is necessary in order to improve the situation for the many pedestrians.

The number of cyclists is increasing in Spain, although it is still very low compared to Denmark and the Netherlands. Cycle lanes and tracks are being introduced also in arterial streets, but the solutions chosen are not always the best for the cyclists, especially if the correct solution means a reduction of on-street car parking. Sometimes the cyclists have to use more or less wide sidewalks, or in case of cycle lanes not segregated from the motorised traffic, the lanes are invaded by vans doing loading/unloading, taxis, motor cycles, etc. Experience from Barcelona shows that the best functioning cycle lanes in the city are segregated both from the pedestrian areas and from the motorised traffic.

One of the most important traffic problems in Spain is the parking. The deficit of parking is very important in all medium and large cities, being quantified in Barcelona about a decade ago to about 250,000 places. This means that a lot of illegal parking is taking place, and a reduction of on-street parking is very unpopular. The car ownership is one of the highest in Europe, and the growth in number of cars is often higher than the construction of new off-street parking places.

Noise and accidents caused by traffic are also important problems found in Mediterranean countries. The Environment Department of Catalonia approved last year a new law to limit the noise level in the street. Recently the Department is making a methodology in order to classify the through roads in function of noise the number of residents and pedestrians being bothered.

Concerning the traffic accidents, Spain has one of the highest rates in the U.E. The objective of the Catalan Road Safety Plan, 2002-2004 is to reduce the number of deaths and serious injuries registered in 2000 by 15% by the end of 2004. this objective is in line with the EU objective of reducing the number of
victims by 50 % by 2010. In arterial streets roundabouts and traffic humps have been installed to reduce accidents in intersections and to reduce speed.

**Decision-making and design processes**

No methodologies are found concerning decision-making and design processes in arterial streets in Spain. In the case of c. Barcelona in Girona, the street is going to be reconstructed because of a change in the traffic situation in the whole area because of the high speed train is going pass the centre of Girona in tunnel and not at street level as today. In Barcelona the Aragó street was reconstructed when the opening of the 2nd ring road decreased the traffic flow in Aragó street, and in Badalona, the av. Martí i Pujol has been changed because it forms part of the whole centre area being reconstructed. In general the planning is being done ad hoc. It should be remembered that in Catalonia with about 6,000,000 inhabitants there are more than 900 municipalities, many of them with quite low budgets, and the traffic department might only consist of 1 engineer working 1 day/week, giving very little time to do traffic planning. Budgets for reconstruction are therefore to be found in the higher road administrations, giving little option for the cities to decide where and how to change a street.

The design options depend very much on the way the traffic planners prioritize in each municipality, or the knowledge they may have about new mobility trends. In some municipalities they may be more concerned about the parking problems or the accessibility in cars, and in others more sustainable traffic modes area given more weight. The traffic planning in a city is not always done by engineers or architects, but also by the locale police corps.

Finally some comments about the public involvement phase. The degree of public involvement depends on each city and each situation. The project of reconstruction of an arterial road will always has to be presented to the public during 1 month before it can be approved and carried out. Sometimes, and each time to a higher degree, the opinion of the stakeholders are also taken into account during the elaboration of the project. Fx. in Girona different solutions are normally presented and discussed with the stakeholders before the final project is being done.