

## Vulnerable road users in Spain

### Part I

#### Introduction

Road safety in Spain is amongst the worst in Europe and traffic accidents are one of the main causes of death in the country. In urban areas, most fatalities involve pedestrians. Within this group, children and older persons are the most vulnerable. There are, of course, a number of factors that contribute to the high mortality rate on Spanish roads amongst which are inadequate infrastructure; behavioural factors such as speeding; violations of traffic rules by both drivers and pedestrians; and inefficient control by the responsible authorities.

Added to this, sustainable mobility coupled with better road safety is an issue that only recently has started to be taken into account by national and local authorities. According to a survey conducted by MOVILIA<sup>1</sup> in 2001, 23% of the population made use of public transport whereas 35% still used a private car as a means of transport in municipalities with more than 500,000 inhabitants. In municipalities with less than 500,000 inhabitants, the percentage of people driving a private car was as high as 55%, where incentives to buy a vehicle are higher because there are less provisions for public transport services.

#### Infrastructure

Infrastructure needs and measures obviously vary according to the location and function of roads. Pedestrians and cyclists make the majority of their trips in the urban environment, which has a lot of interfaces between vulnerable and other road users. In order to reduce their casualties<sup>2</sup> it is therefore important that road conditions in urban areas are made particularly safe for vulnerable road users.<sup>3</sup>



C. Martin Rey / JCECU

Even though road safety seems to be improving in Spain<sup>4</sup>, much still remains to be done. Evidence shows that the sites that pose the highest threat to pedestrians are traffic lights with no pedestrian crossing provisions. In such cases, the risk of an accident occurring increases by 72%<sup>5</sup>. Furthermore, in some cases where pedestrian crossings controlled by a traffic light do exist, the time allowed to cross is so short that people with reduced mobility are put at risk, especially around heavy

traffic.<sup>6</sup> It is therefore vital that careful attention is given to the planning of pedestrian crossing facilities.

A lack of awareness about the existence of effective measures, explains why the behaviour of road designers and urban planners changes very slowly. In Madrid, for instance, new residential areas are still constructed without being connected to the metro network. Provisions and facilities for cyclists are rare in many Spanish cities (with the notable exception of Barcelona). This lack acts as a disincentive to the use of bicycles.<sup>7</sup>

Better facilities and clearer signage are low-cost measures that can dramatically improve the safety of vulnerable road users.<sup>8</sup> The creation of networks of connected and convenient pedestrian and cyclist routes can lead to greater safety for vulnerable road users. Safer routes typically consist of footpaths or cycle tracks separate from any carriageway, pedestrian-only areas, and areas with mixed access of pedestrians and cyclists.

## VOICE

### VOICE : Vulnerable Road User Organisations in cooperation across Europe

VOICE is a network to ensure that usually neglected VOICES are heard in the transport debate – those of vulnerable road users.

#### The VOICE coalition currently consists of:

AGE - the European Older People's Platform; ANEC - the European consumer voice in standardisation; EPHA Environment Network European Child Safety Alliance; European Disability Forum European Public Health Alliance; European Federation for Transport and Environment; Voetgangersbeweging - Pedestrian Movement, BEUC; European Transport Safety Council

More information: [www.etsc.be/Voice.php](http://www.etsc.be/Voice.php)

#### Sustainable mobility

Speed and traffic volume are factors directly related to accidents involving pedestrians. There is a link between the number of casualties and the intensity of traffic on a particular road. Since 1993, the number of vehicles circulating on Spanish roads has increased by 29%<sup>9</sup>.

There still exist many cultural prejudices in the country especially with regard to cycling, which is an activity normally associated with environmentalists and students. Owning a car is still very much a symbol of social status. Ironically, because of heavy congestions, the average speed of motorised traffic

in cities like Madrid is 13-14 km/h, which is the same or inferior to the speed reached by a cyclist.<sup>10</sup>

It is important that pedestrians and cyclists reclaim their space, particularly in urban areas. Developing new networks of urban transport or improving existing ones would lead to fewer cars in the streets. Furthermore, effective campaigns promoting more cycling and walking are needed.

**Behaviour**

Pedestrians are most vulnerable within urban areas where they represent almost four out of ten traffic fatalities.<sup>11</sup> Out of the total of pedestrians killed in traffic accidents in urban areas in 2002, 46.6% were older than 64.<sup>12</sup>

When looking for the root of the problem, one is confronted with a combination of factors. Infractions of traffic rules by drivers often lead to serious accidents. The most common violations are speeding, drink driving, and distraction caused partly by the use of mobile phones.<sup>13</sup> Even in zones with a 30 km/h speed limit, drivers often get away with speeding. A study conducted in 2002 by the Royal Automobile Club of Spain showed that not even the school buses in some areas of Madrid obeyed the 30km/h limit signposted in school zones.<sup>14</sup>

Pedestrians, however, also play a role.<sup>15</sup> Not making proper use of pedestrian crossings or crossing the road at a red light are common causes of accidents.



*J. Parise*

Nevertheless, this may be partly due to the fact that in many cities pedestrian facilities are non-existent. Amongst elderly pedestrians, the main factor tends to be their reduced capacity to move and failing eyesight, which clearly affects their ability to react quickly in a potentially risky situation. In the case of children, a common cause of accidents is impulsive behaviour such as running onto the road or crossing it inappropriately or without supervision.

A combination of awareness campaigns, education, and continued enforcement of traffic rules targeting both pedestrians and drivers is necessary if changes in attitudes are to occur. Stricter enforcement of speed limits and the creation of more 30 km/h zones in residential and school areas would also be beneficial.

**Part II**

**Best practice examples**

**Infrastructure and sustainable mobility**

**Barcelona**<sup>16</sup> is one of the cities in Spain that has invested the most in the promotion of sustainable mobility. It has pedestrianised large parts of the historical centre, expanded pavement surfaces, created more pedestrian crossings and traffic lights in order to make journeys on foot more comfortable and enjoyable.



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Local authorities in the city of **Vitoria** have designed a "green ring", which is a series of urban paths consisting of cycle tracks and pedestrian zones connecting the city centre to suburbs. Bicycles can also be borrowed for free, which has led to 25,000 people making use of these facilities in the first four months. In **Córdoba**, the city council in cooperation with Plataforma Carril-bici, have initiated a programme linking road safety education with the use of bicycles as a way of encouraging more children to cycle.

There are well-known measures to discourage driving that can decrease the number of cars circulating within urban areas. One typical example is the congestion-charge implemented in **London**, which drivers must pay if they wish to drive into the city centre. **Copenhagen** has invested heavily on cycle lanes, public transport (including better transfer between public transport modes), reduced the environmental impact and safety hazard of motorised traffic by diverting it away from the city centre and local streets, introduced 40km/h speed limits in residential areas, amongst other measures.<sup>17</sup>

**Behaviour**

Measures targeting both vulnerable road users and drivers are necessary in order to improve behaviour and increase safety in the streets. Addressing common traffic violations by drivers such as drink driving and speeding has proven effective in a number of countries.<sup>18</sup> A driving licence penalty point system in order to penalise drivers who speed coupled with increased enforcement has reduced

road fatalities in **France** by 17% between 2002 and 2003. In **Italy**, road deaths fell by 30% the first year following the implementation of a penalty point system. In the **UK**, drivers are penalised not just for speeding but also for drink driving. In **Spain**, it was introduced in 2006 so authorities need to make sure that it is properly enforced.

Education and campaigns to raise awareness of road and traffic risks amongst pedestrians and cyclists have proved effective in many EU countries. Educating children from an early age with a view to making them more responsible road users in adult life has obvious benefits. Countries like **France**, **Malta** and **Hungary** have invested in road safety education at schools. The **UK** is known for its many initiatives to encourage children to walk or cycle safely to school. A good example is a project known as “Safe Routes to Schools”, which works with schools and local communities in the planning of safe routes and teaching children about road safety. This programme has, so far, experienced a large degree of success<sup>9</sup>.

### Spanish Campaigns and Organisations

In Spain, there exist several organisations active in the field of road safety and safety of vulnerable road users:

**Fundación RACC** ([www.racc.es](http://www.racc.es)) has carried out and published a number of surveys on VRUs; **Instituto MAPFRE de Seguridad Vial** ([www.mapfre.com](http://www.mapfre.com)) has also published useful studies on the safety of vulnerable road users; **BACC - Bicicleta Club de Catalunya** ([www.bacc.info](http://www.bacc.info)) is an active cyclist organisation based in Barcelona; **Catalunya Camina** ([www.catalunyacamina.org](http://www.catalunyacamina.org)) is a Catalan umbrella organisation of pedestrian groups; **ConBici** ([www.conbici.org](http://www.conbici.org)) is an umbrella cyclist organisation with members in Spain and Portugal; **Observatorio Nacional de Seguridad Vial** is supported by the Directorate General for Traffic (DGT) and serves as a reference centre for data on traffic safety in Spain as well as comparative data in relation to other EU countries.

At a national level the government must ensure the frameworks they establish for more local action support and stimulate the spread of initiatives that have been successful. In Spain the areas that specifically need to be strengthened are infrastructure and sustainable mobility, and behaviour of both drivers and pedestrians through effective education and enforcement of traffic rules.

### Measures to protect vulnerable road users at EU level

In 2001, the Commission proposed an ambitious target to halve the number of road fatalities by 2010 (White Paper on the European Policy for Transport, 2001). In order to pave the way towards achieving this target, the Commission subsequently published a European Road Safety Action Programme (COM (2003) 311 final). It stressed the need for better protection of vulnerable road users. In particular, it highlighted the relevance of education and awareness campaigns aimed at vulnerable road users and the importance of the tests conducted by EuroNCAP (European New Car Assessment Programme) regarding passive safety, which concerns protection against injury in the event of a crash.

Safer car fronts for pedestrians and cyclists are a priority to EU action. Mindful of the fact that every year some 8,000 pedestrians and cyclists are killed and a further 300,000 injured on European roads, the Parliament and Council adopted a Directive (2003/102/EC) which aims to reduce the severity of injuries to pedestrians by laying down tests and to introduce changes to the front of vehicles, concentrating essentially on the bonnet and bumper. These could help prevent up to 2,000 pedestrian fatalities a year. European, Japanese and Korean car manufacturers had already agreed to produce vehicles complying with the provisions of the first step of this Directive as well as a range of other safety measures, which will reduce the risk of serious or fatal injuries to pedestrians. The second stage of this Directive has been reviewed and the Commission will propose a revised standard, this time a Regulation, which will adapt the standard to ensure its feasibility. The final standard eventually adopted by the Council of Ministers and the European Parliament must give the protection of vulnerable road users the highest priority.

## Part III

### All actors contributing

The examples of what has worked in various locations illustrate mainly what local authorities can do to improve the protection of vulnerable road users. But national and European decision makers also have a role to play.

## References

- 1 Ministerio del Fomento - [www.fomento.es/MFOM/LANG\\_CASTELLANO/INFORMACION\\_MFOM/INFORMACION\\_ESTADISTICA/Publicaciones/movilia\\_2000/](http://www.fomento.es/MFOM/LANG_CASTELLANO/INFORMACION_MFOM/INFORMACION_ESTADISTICA/Publicaciones/movilia_2000/)
- 2 According to the Spanish General Directorate of Traffic, 81% of deaths and 67% of serious injuries occurred within urban zones. – “Las principales cifras de la Siniestralidad Vial 2004”, Dirección General del Tráfico (DGT), Ministerio del Interior – [www.dgt.es](http://www.dgt.es)
- 3 ETSC (2005), The Safety of Vulnerable Road Users in the Southern, Eastern and Central European Countries (The “SEC Belt”) – [www.etsc.be](http://www.etsc.be)
- 4 See Plan Estratégico de Seguridad Vial 2005-2008 published by the Directorate General for Traffic (DGT).
- 5 Instituto MAPFRE - Estudio Accidentalidad peatonal en los núcleos urbanos, 2005.
- 6 Conchy Martin Rey, of CECU, a Spanish consumer organisation, points out that road works and building refurbishments are problematic because there is a lack of awareness amongst promoters, enforcement agents, and the public administrations in general about the dangers that these pose to pedestrians.
- 7 ETSC (2005), SECBelt Monitor 03, July 2005 – [www.etsc.be](http://www.etsc.be)
- 8 Ibid
- 9 Fundación RACC, “Memoria Fundación RACC 2002-2003” – [www.racc.es](http://www.racc.es)
- 10 Revista Trafico, “En busca de la movilidad sostenible”, January-February 2005.
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- 12 Fundación RACC – [www.racc.be](http://www.racc.be).
- 13 DGT – [www.dgt.es](http://www.dgt.es).
- 14 ETSC(2005), SECBelt Monitor 03, July 2005.
- 15 All the following examples are provided by Instituto MAPFRE.
- 16 For more information on Barcelona and other Spanish cities, see Revista Trafico, “En busca de la movilidad sostenible”, January-February 2005. Test Achats n° 490 septembre 2005
- 17 City of Copenhagen – Traffic & Environmental Plan 2004.
- 18 The following examples may be found at Plan Estratégico de Seguridad Vial 2005-2008 – [www.dgt.es](http://www.dgt.es).
- 19 For more information, visit the “Safe Routes to Schools” website: [www.saferoutestoschools.org.uk/index.php?f=casestudies.htm](http://www.saferoutestoschools.org.uk/index.php?f=casestudies.htm).



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