

## Vulnerable road users in Portugal

### 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; Health and Environment Alliance; 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)

## Part I - Portugal

### Introduction

Road safety in Portugal reached its worst level by early 90's, with the number of fatalities in road accidents peaking at 3,217 in 1991. Starting from 1993 the situation has continued to improve, and by 2006 the number of road accident fatalities was reduced to 949. This positive result was achieved against the background of a continued growth in road traffic.<sup>1</sup>

However, despite significant decreases in both the number of road fatalities and the average accident severity in the past decades, the average road fatality rate in Portugal was still at 123 per million in 2004, significantly above the EU average of 95.<sup>2</sup> The major road safety problems today remain:

- Excessive or inappropriate speed
- Pedestrian safety
- Drink driving
- Unsafe infrastructure

To address these problems, "Plano Nacional de Prevenção Rodoviária" (PNPR) – the Government's Road Safety Plan – was launched in March 2003, becoming a first programme document with quantitative long-term targets and the strategies for achieving them. Its operational priority objectives include curbing excessive traffic speed, enhancing safety for pedestrians and two-wheel vehicles users, fighting drink and drug driving, increasing the rate of safety belt and helmet wearing and the use of child restraint systems (CRS), improving key infrastructure construction and maintenance aspects and enhancing emergency help and post-trauma care.

### Speed

Speeding is a very grave problem on the Portuguese roads which so far shows little signs of improvement. In 2006 speeding was responsible for 32.3% of fatal crashes in the country, down from 32.8% in 2000 and 36.0% in 2004. A study carried out by the National Laboratory for Civil Engineering (LNEC) shows that a high percentage of drivers exceed the posted speed limits: 70% of passenger cars and heavy vehicles on motorways, and 80% on interurban single carriageway roads. In urban roads, 50% of motorists drive over the speed limits.<sup>3</sup>

This has obvious negative repercussions for vulnerable road users who are put unnecessarily at risk. New legislation with



J. Cardoso/LNEC

higher penalties for speeding was introduced in March 2005. This included a new offence for speeding between 60 km/h and 80 km/h over the speed limit and higher penalties for speeding in built-up areas. Both fixed and mobile speed controls are used.<sup>4</sup> Enforcement should, however, continue to be intensified in urban areas in order to bring down the still high numbers of annual pedestrian casualties.

### Pedestrians and other vulnerable road users (VRUs)

In absolute terms the number of pedestrians killed in road accidents has fallen considerably, from 691 in 1990 to 137 in 2006. The actual number is still high though, accounting for about 16% of the total road fatalities, which is above the EU-15 average of 14 %.<sup>6</sup> In Portugal, pedestrian accidents show particularly adverse fatality rates, compared to other EU countries. Whereas the average fatality rate for car and truck occupants in Portugal was 1.4 higher than the average EU 15 rate in 2002, this ratio rose to 2.1 in case of pedestrians.<sup>7</sup> Elderly people (older than 65) are particularly at risk, representing 41.6% of pedestrian deaths and 42.9% of cyclist deaths. Two wheel vehicle occupants also account for a larger proportion of the fatalities (28%) compared to 20% in the EU-15.<sup>8</sup>

Children under the age of 14 represented 3.2% of total

road deaths in 2006 in Portugal, with some 26 % of them being pedestrians and around 50% passengers<sup>9</sup>. Since 1996, the Portuguese Association for Child Safety Promotion (APSI) has monitored the rates of use and misuse of CRS for children under the age of 12. There has been an almost constant increase in the use of CRS, from under 20% in 1996 to over 75% in 2006. However, according to APSI, only 50% of the families apparently use the adequate CRS which is well anchored into the car.

Portuguese focus on VRUs therefore seems highly relevant.

The National Road Safety Plan set the objective of a 50% reduction until 2010 of the number of people killed or seriously injured in road accidents. This target was increased to 60% as regards accidents involving pedestrians and two-wheeled vehicle riders, as well as accidents in urban areas.<sup>10</sup> APSI organised



*J. Cardoso/LNEC*

information campaigns and training sessions on CRS use for parents, health professionals and enforcement officials.

## Alcohol

In terms of legal alcohol limit Portugal is somewhere in the middle of the EU25 range, with the allowed BAC limit at 0.5 mg/ml. According to the National Forensic Medicine Institute (Instituto Nacional de Medicina Legal, INML) data, 40% of the drivers killed in road accidents who were tested were over the legal blood alcohol limit in 2004.<sup>11</sup> As a result of this finding, a target was set in the PNPR to decrease by half the number of fatalities presenting illegal blood alcohol levels.<sup>12</sup>

According to Portuguese law, it is compulsory to breathe test drivers involved in road accidents in Portugal. However, in reality not all drivers undergo tests, a fact which affects the reliability of the data based on police reports. At present, Portugal is working on producing a better estimate of the number of alcohol related accidents based on the two sources – Police and INML reports.<sup>13</sup>

## Infrastructure

Improvements of road infrastructure certainly provide an important contribution to the decrease in traffic mortality. A number of infrastructure improvement programmes are forthcoming: dividing roads with median barrier, setting up roadside safety barriers, fully controlled intersections and roundabouts, improving road lighting, creating tactile edge line marking for blind people, etc. Many measures

regarding road environment improvement in rural areas were already in practice before 2002, but the efforts are now more intense and better coordinated, with construction of rest and police observation platforms, paved shoulders, inspection of existing road signing, access control to major roads, risk mitigation at bus stops etc. Furthermore, low-cost engineering measures, such as speed actuated devices and roundabouts, are being applied in interurban roads passing through small villages.<sup>14</sup>

The provision of facilities for pedestrians in Portugal, however, has not been done in a systematic way as this kind of intervention is normally undertaken by local authorities on a case-by-case basis. Recent years have also witnessed a rise in bicycle use, especially in urban areas. Yet, the allocation of space for cyclists by local administrations has been slow, which may result in undesirable future developments such as more accidents involving this group of road users. Furthermore, adequate planning and construction is made more difficult by a lack of technical recommendations.<sup>15</sup>

## Education

Improved infrastructure needs to be reinforced by sustained efforts to educate road users of all ages. In this area Portugal has fared fairly well. Safety awareness campaigns directed to pedestrian safety and safety infrastructure have been, until now, the main actions undertaken on a nationwide basis: Campaigns addressing the use of child restraint systems (1993, 1996, 1997, 2001 and 2007)<sup>16</sup>; Campaign to teach children how to walk on the road, and how to cross it (1982); Campaign addressing young road users on the way to school (1984); Campaign for pedestrian protection (1988); Campaigns addressing speed, pedestrians, alcohol and seat belts (1992 and 1996)<sup>17</sup>. Since 2003, however, activities in this area have been considerably reduced, for lack of political support.

## Recent road safety initiatives

The Government's Road Safety Plan, launched in March 2003, set out a programme of enforcement measures. In accordance with it, a number of much stricter sanctions, including high fines and temporary suspension of driving license, were introduced to the Portuguese Road Code as of March 2005 for such offences as drink-driving, mobile phone use without hands-free set while driving a vehicle, non-use of child restraint systems or seatbelts for youngsters, driving without valid roadworthiness inspection or vehicle liability insurance, etc.<sup>18</sup>

To some extent, however, political support for the implementation of the national Road Safety Plan has been reduced in recent years, which affected the coordination of the activities of the country's leading road safety institutions and disturbed the Plan's effectiveness.<sup>19</sup>

It is vital that efforts continue to be made in order to reduce fatalities amongst vulnerable road users. A better coordination of initiatives and measures at national and local levels is necessary.

## Part II - What works best? Examples from Europe

Measures targeting both vulnerable road users and drivers are necessary in order to improve behaviour and increase road safety in Portugal. Addressing common traffic violations by drivers such as drink driving and speeding has proven effective in a number of countries. The examples below illustrate what other European countries have done to address similar issues.

### Speed

In **France**, a whole array of measures was introduced which led to spectacular reductions in the number of speeding offences. A driving licence penalty point system in order to penalise speeding drivers, coupled with increased enforcement and improved speed management, based on the new camera system, contributed about 75% to the massive overall reduction in fatal accidents between 2002 and 2005. From 2003 to 2005, the proportion of vehicles travelling at 10 km/h and more above the legal limit decreased from 35% to 20%. The number of vehicles exceeding the limit by more than 30 km/h went down by 80%. Average speeds decreased by 5 km/h.<sup>20</sup> Penalty point systems are increasingly being used in European countries. 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 **Sweden**, speed surveillance has been enhanced with the use of cameras. Speed enforcement has become a priority with the introduction of a new digital speed camera system and an increase in fines.<sup>21</sup>

### Alcohol

In the **Netherlands**, drink driving tests have been on the rise since the introduction of the "Speed Teams" between 2000 and 2003, and the number of detected violations has increased sharply. In 2004, 25,000 minor offences were dealt with by the Dutch Central Judicial Collecting Agency, representing a more than 50% increase from 2003 when it was nearly 12,500. The stepped-up enforcement goes hand in hand with Belgian-modelled 'BOB' designated driver campaign introduced in 2001. As a result, drink driving on weekend nights has dropped to 3.9% in 2003, and alcohol-related traffic deaths make up no more than 17% of the total.<sup>22</sup>

In **Austria**, new legislation was introduced in 2005 to enable roadside screening tests in drink driving enforcement. A pilot project led by the Austrian Road Safety Board (KfV) has shown that the use of screening devices can help multiply controls by ten without increasing human resources. According to KfV, the efficient implementation of these devices could save between 50 and 100 lives annually. The new instruments should therefore be applied in every roadside check.<sup>23</sup>

### Infrastructure

Road infrastructure improvements have been a major focus in **Sweden** and in the **Netherlands** over the past several years. In Sweden, a large share of rural roads has been changed into 2+1 lane roads with wire fences separating the opposite traffic. In urban areas, 30 km/h were also widely introduced. In the Netherlands, new guidelines based on the "Sustainable Safety" philosophy have been introduced. In many urban areas, the speed limit has been lowered from 50 to 30 km/h, and on rural roads from 80 to 60 km/h. There has also been a large increase in the number of roundabouts. The Dutch Road Safety Institute (SWOV) has estimated that infrastructure measures contributed to a 6% reduction in deaths and serious injuries in 2002.<sup>24</sup>

Copenhagen in **Denmark** has invested heavily in cycling 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 and introduced a 40km/h speed limit in residential areas, amongst other measures.<sup>25</sup>



J. Cardoso/LNEC

### Pedestrian and other VRUs safety

In **Portugal** itself, the community-based project "Safe Road to School in Faro" led by APSI resulted in raising CRS use rates from 20% to 89% and was acknowledged as best practise by the WHO.<sup>26</sup>

Local authorities in the city of Vitoria, **Spain** 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, **Spain** the city council in cooperation with Plataforma Carrilbici has initiated a programme linking road safety education with the use of bicycles as a way of encouraging more children to cycle.<sup>27</sup> 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 training children about road safety. This programme has, so far, experienced a large degree of success.<sup>28</sup>

## Part III - All actors contributing

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

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 Portugal, the areas that specifically need to be strengthened are stricter enforcement measures to counter alcohol and speed-related road accidents, as well as better coordinated infrastructure improvement campaigns and continued efforts to educate all, and especially vulnerable road users.

### Portuguese campaigns and organisations

The coordination of the institutions that intervene in the various components of road safety is carried out by the **National Council for Road Safety**. Most of the monitoring functions related to road accidents are performed by **Directorate-General for Traffic (DGV) (Direcção Geral de Viação)**, [www.dgv.pt](http://www.dgv.pt), integrated in the Ministry of Internal Affairs. The **Portuguese Roads (Estradas de Portugal)**, [www.estradasdeportugal.pt](http://www.estradasdeportugal.pt), a public business-related entity, is responsible for planning, managing, developing and executing the road infrastructure policy set out in the National Road Plan. Traffic law enforcement is carried out by the **Public Security Police (PSP, Polícia de Segurança Pública)**, [www.psp.pt](http://www.psp.pt), which operates in major urban areas, and the **National Republican Guard (GNR, Guarda Nacional Republicana)**, [www.gnr.pt](http://www.gnr.pt), active elsewhere in the country. The **Organisation for Road Accident Prevention (PRP, Prevenção Rodoviária Portuguesa)**, [www.prp.pt](http://www.prp.pt), is a core player in conducting awareness, education and training on road safety area; another relevant NGO is the **Association for Child Safety Promotion (Associação para a Promoção da Segurança Infantil)**, [www.apsi.org.pt](http://www.apsi.org.pt), involved in awareness, education and training campaigns for child road safety issues. The **National Laboratory for Civil Engineering – LNEC (LNEC - Laboratório Nacional de Engenharia Civil)**, [www.lnec.pt](http://www.lnec.pt), conducts road safety research.



J. Cardoso/LNEC

### 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 Transports, 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 between 2007 and 2009. The final standard eventually adopted by the Council of Ministers and the European Parliament must give the protection of vulnerable road users the highest

## References

- 1 CARE is an EU Database on road accidents resulting in death or injury – [http://europa.eu.int/comm/transport/care/index\\_en.htm](http://europa.eu.int/comm/transport/care/index_en.htm)
- 2 Traffic Law Enforcement across the EU – an Overview (ETSC), 2006
- 3 Country report on road safety performance – Portugal, Joint OECD/ECMT Transport Research Centre, July 2006
- 4 Traffic Law Enforcement across the EU – An overview (ETSC), 2006
- 5 Direcção-Geral de Viação (2007). SINISTRALIDADE RODOVIÁRIA (Elementos estatísticos 2006), DGV
- 6 Country report on road safety performance – Portugal, Joint OECD/ECMT Transport Research Centre
- 7 SUNFlower+6
- 8 Country report on road safety performance – Portugal, Joint OECD/ECMT Transport Research Centre
- 9 1999-2002 data, source: Associação para a Promoção da Segurança Infantil (Portuguese Association for Child Safety Promotion), APSI
- 10 SUNFlower+6
- 11 Country report on road safety performance – Portugal, Joint OECD/ECMT Transport Research Centre
- 12 SUNFlower+6
- 13 Country report on road safety performance – Portugal, Joint OECD/ECMT Transport Research Centre
- 14 Country report on road safety performance – Portugal, Joint OECD/ECMT Transport Research Centre
- 15 SEC Belt Monitor 6
- 16 Associação para a Promoção da Segurança Infantil
- 17 SUNFlower+6 report
- 18 Law-Decree n° 44/2005 of 23.02.2005
- 19 SEC Belt Monitor (ETSC), October 2006
- 20 Impact du contrôle sanction automatisé sur la sécurité routière (2003-2005). Observatoire national interministériel de sécurité routière, 2006.
- 21 ETSC PIN Flash 2 (26 September 2006) - [http://www.etsc.be/documents/copy\\_of\\_copy\\_of\\_copy\\_of\\_copy\\_of\\_PIN%20Flash%202.pdf](http://www.etsc.be/documents/copy_of_copy_of_copy_of_copy_of_PIN%20Flash%202.pdf)
- 22 ETSC PIN Flash 2 (26 September 2006) - [http://www.etsc.be/documents/copy\\_of\\_copy\\_of\\_copy\\_of\\_copy\\_of\\_PIN%20Flash%202.pdf](http://www.etsc.be/documents/copy_of_copy_of_copy_of_copy_of_PIN%20Flash%202.pdf)
- 23 ETSC PIN Flash 2 (26 September 2006) - [http://www.etsc.be/documents/copy\\_of\\_copy\\_of\\_copy\\_of\\_copy\\_of\\_PIN%20Flash%202.pdf](http://www.etsc.be/documents/copy_of_copy_of_copy_of_copy_of_PIN%20Flash%202.pdf)
- 24 ETSC PIN Flash 2 (26 September 2006) - [http://www.etsc.be/documents/copy\\_of\\_copy\\_of\\_copy\\_of\\_copy\\_of\\_PIN%20Flash%202.pdf](http://www.etsc.be/documents/copy_of_copy_of_copy_of_copy_of_PIN%20Flash%202.pdf)
- 25 City of Copenhagen – Traffic & Environmental Plan 2004
- 26 Children's Health and Environment Case Studies – Summary book, WHO - 4th Ministerial Conference on Environment and Health, Budapest, Hungary 23-25 June 2004; also Child Safety Good Practice Guide: Good Investments in Unintentional Child Injury Prevention and Safety Promotion, M. MacKay, J. Vincen ten, M. Brussoni, L. Towner, Amsterdam, European Child Safety Alliance, Eurosafe, 2006; also [http://www.euro.who.int/childhealthenv/Policy/20050824\\_4](http://www.euro.who.int/childhealthenv/Policy/20050824_4)
- 27 Fact Sheet VOICE Spain - [http://www.etsc.be/documents/Fact\\_Sheet\\_VOICE\\_Spain.pdf](http://www.etsc.be/documents/Fact_Sheet_VOICE_Spain.pdf)
- 28 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)



The VOICE Campaign is co-financed by the European  
Commission © ETSC 2006

**European Transport Safety Council**  
**Rue du Cornet 22 - B-1040 Brussels**  
**Tel. + 32 (0) 2 230 4106 - Fax. + 32 (0) 2 230 4215**  
**E-mail: [information@etsc.be](mailto:information@etsc.be) - Internet: [www.etsc.be](http://www.etsc.be)**