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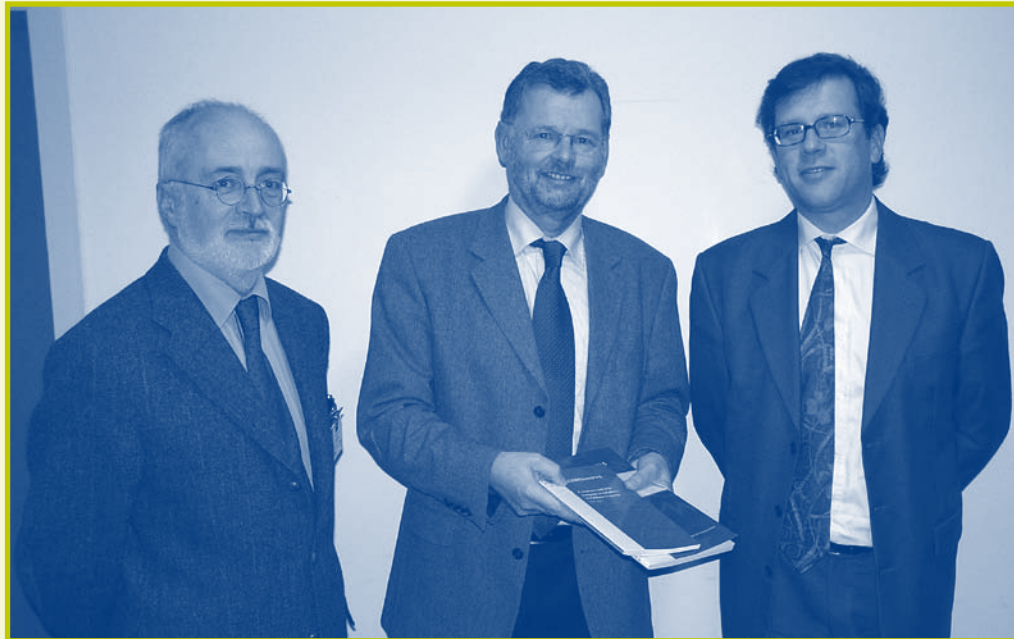
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### Editorial

This issue of Research Activities presents the news on two important European road safety projects: SUNflower+6 and SafetyNet.

Other topics in this issue are Predictability, one of the principles of the Dutch road safety vision Sustainable Safety, and the problems the Netherlands encounter with lorries turning right.



Fred Wegman (middle), managing director of SWOV, offers the SUNflower+6 reports to the European Commission DG TREN: Jean-Paul Repussard (left) and Stefan Tostmann (right)

## Comparative European study: Positive developments in road safety in many European countries

Efforts in nine European countries still insufficient to achieve the EU target for 2010

**During the last decades, the number of road traffic casualties has been decreasing in many European countries, including the Netherlands. However, the decrease is probably insufficient to achieve the European Commission's target of 50% fewer road deaths in 2010 than in 2000. This has been concluded on basis of the comparative study, called SUNflower+6, that SWOV carried out together with eight other research institutes in Europe.**

### Ambitions

In spite of the increase in distances travelled,

the number of road crashes and the number of people killed or injured has gone down in all European countries. However, the current numbers and total costs are still considered to be unacceptably high. Nearly all European countries

**"...coming home late is annoying, but not coming home at all is tragic."**

Karla Peijs, Minister of Transport, Public Works and Water Management, at the ANWB Congress on the European Road Assessment Programme (EuroRAP) in The Hague 24<sup>th</sup> May 2006

QUOTE

have set themselves a target, which illustrates their intent to improve road safety. The European Commission even leads the way with its ambition to halve the number of casualties on Europe's roads by 2010.

### SUNflower approach improved

In order to obtain insight in the extent to which policy programmes are successful, a comparative study of the road safety programmes in Sweden, the United Kingdom, and the Netherlands was carried out in 2002. The method, which was named SUNflower and was further refined in a follow-up study, has now been applied on a larger scale under the name SUNflower+6. Nine countries cooperated in this follow-up study: three Central European countries (Czechia, Hungary, and Slovenia), three Southern European countries (Greece, Portugal, Spain and, in addition, the autonomous region of Catalonia), and the original three SUNflower countries (Sweden, the United Kingdom, and the Netherlands). The method is aimed at quantifying road safety per country, thus making it possible to make comparisons and indicate developments more clearly. In this way, the road safety strengths and weaknesses in a particular country are made clearer. The participating countries can learn from each other which measures are effective, in order to achieve progress quicker.

It was not easy to compare the nine countries with each other. Each one has its specific characteristics. For example, there are great differences in road design, in the crash rate per mode of transport, and in alcohol limits. These differences influence the performance indicators and the resulting

## Misinterpretation of SUNflower report by Insurance Institute for Highway Safety

**In Volume 41 – April 2006 - of the IIHS Status Report an article was published which misinterprets and misrepresents the report of the first SUNflower project published in 2002.**

Under the heading 'Misuse of death rates in SUN countries' the article states that, according to the authors O'Neill and Kyrychenko, the first SUNflower report assumes that the low death rates in the SUN countries (Sweden, United Kingdom, Netherlands) were the result of the effectiveness of the countries' safety policies. However, this assumption is not made in the SUNflower report. Therefore, the criticism given in the this article is undeserved, according to the authors of the SUNflower report.

One of the main reasons for comparing the three SUN countries was the fact that they had reached similar levels of traffic safety, at an aggregate level, despite the major differences in population density, network structure, road safety programmes, etc.

Therefore, the specific focus of the report was to clarify what each country might learn from the policies each of the other countries had developed in relation to its own specific safety problems. It would have been very satisfying if

the good safety records were a result of the safety policies, but the report does not make this claim. Previous work has shown the difficulty of isolating the effects of any other than the largest scale policies, such as seatbelt wearing, drink driving measures, and improvements to vehicle secondary safety, at a national level. The report therefore focuses on differences between some of these policies for further research.

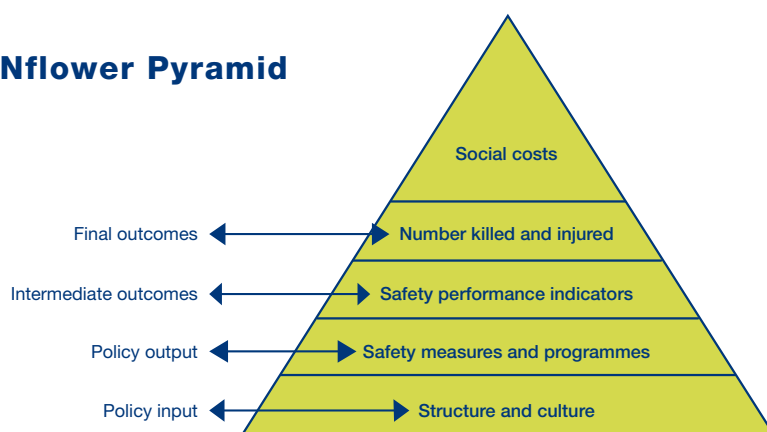
We think the IIHS-authors did not properly understand the objectives of the report. They used selective citations to demonstrate their opinion. The authors of the first SUNflower report were not acknowledged in advance on the publication in IIHS, neither has there been any contact to clarify any misunderstandings. We strongly object to the allegations made in the article and are convinced that anyone who reads the first SUNflower report will agree to our argumentation.

*Fred Wegman & David Lynam  
Fellow authors of 'SUNflower: A comparative study of the development of road safety in Sweden, the United Kingdom and the Netherlands'. SWOV, Leidschendam, 2002, www.sunflower.swov.nl.*

road safety score for each country. SUNflower+6 tried to present the road safety data in such a

way that it gives insight into the influence of these aspects on the differences in results.

### SUNflower Pyramid



The target hierarchy for road safety, derived from the 'New Zealand Pyramid' (2000, LTSA) describes a country's road safety in terms of strategy and action programmes. They are placed in the context of 'structure and culture', shown here at the bottom. Implementing a strategy must lead to road safety improvements. These improvements are measured by using quality indicators, also known as *Safety Performance Indicators (SPIs)*. They can be defined over the whole area of road safety: human, road, and vehicle, and pre-crash, crash, and post-crash. The next level in the pyramid is the number of traffic casualties, and the top of the pyramid is the layer of road safety's social costs.

### General conclusions and recommendations

In spite of the differences between countries, some general observations could be made about the current road safety situation in the nine countries studied:

- Driving under the influence remains a problem, although all nine countries have booked progress in pushing it back. The problem appears to lie with a relatively small group of heavy and stubborn drinkers. Additional measures, such as an alcolock, are being considered to tackle this group. All countries have a BAC limit and conduct anti-drinking campaigns. There has recently been a wide discussion about tackling drugs in traffic.
- Seatbelts are an important way of preventing severe, or even fatal, injury in a crash. Obligatory seatbelt wearing by all occupants, and its enforcement, are essential preconditions for increasing its use. Although the percentage of usage has increased in all countries, there is still room for improvement. All participating countries should have a 100% target.

- Speed limits are frequently exceeded in all the countries. The part speed plays in road crashes is equal to that of alcohol. Europe faces the challenge of tackling this problem. It requires an integral approach consisting of road design, speed limits that fit the situation, well-targeted enforcement, and support for ISA applications.
- Moped riders and motorcyclists have a high crash involvement rate, especially if the riders are young and inexperienced. What is more, their increasing use leads to an increasing problem. Compulsory wearing of a crash helmet is a simple and effective measure to prevent severe injury. Unfortunately, helmets are not always worn. Police enforcement is an important instrument to improve this. In addition, more attention should be paid to risk awareness and defensive riding during the rider training. The improvement of the vehicle safety of mopeds and motorcycles deserves a higher international priority.
- Young motorists are a group with a strikingly high crash rate in all countries studied. Until now, the measures taken have not achieved the same reduction among this group as among other road users. Additional measures are needed to achieve a similar reduction. One can think of a graduated introduction to traffic, giving information and raising awareness, police enforcement, and ITS applications.
- Cooperation between central, regional, and local governments should be stimulated, as should involvement of the population. The commission could place more emphasis on road safety policy at the regional and local level, where successful initiatives that greatly improve safety should be supported.
- In order to be able to conduct comparative research, such as SUNflower+6, it is important to have correct and reliable data available. A great deal of improvement is both possible and necessary here. Data collections should preferably be linked to digital information systems.

Finally, the SUNflower+6 project was an important step forward towards producing comparative performance indicators and standards in order to be able to meaningfully compare road safety in different countries. Follow-up research is necessary to improve the method and make it more user-friendly, so that more countries can measure their road safety.

On 27<sup>th</sup> April 2006, the project team presented the final SUNflower+6 report to the European Commission in Brussels.

*The full text of the Final Report of SUNflower+6 is available on the SWOV website under Publications and under International Research. You can find out more about this project on the special website [sunflower.swov.nl](http://sunflower.swov.nl).* ◀▶

## Road crash data 2005

# Decrease in road deaths continues in the Netherlands

**In April the Minister of Transport, Mrs. Peijs, announced the road crash data for 2005. After a very successful 2004 (19% reduction) the decrease in road deaths has continued. 2005 had 64 fewer deaths than 2004; there were 817. This is about 7% less than in 2004.**

### Explanation is not yet sufficiently well founded

The data shows that the improvements in the numbers of casualties occurred across the board: ages, transport modes, and age groups. The conclusion that it is mainly the consequence of a number of measures taken during the last five years, is too early to make. The assumed relation cannot yet be confirmed. Now that the data has been made known, SWOV will carry out a further study and will report on it in our Annual Road Safety Analysis 2005 to be published in this fall.

### Reconsideration of the national road safety target

Due to the positive data the Minister also announced to be willing to reconsider the Dutch target for road safety. The current one is a maximum of 900 road deaths in 2010. The recent data shows that this target can not be seen as ambitious anymore. The results of the SWOV study will be used to formulate the new targets for 2010 and 2020.

### Long-term Road Safety Analysis

Besides this annual analysis, we will also publish what is known as a long-term road safety analysis. Using a longer period of time enables us to better analyse the developments in the various fields of road safety. For example, previous studies have shown that the Sustainable Safety approach that started in 1992 has had a

positive effect. Creating more 30 km/h and 60 km/h zones is a measure stemming from the Sustainable Safety vision.

### Improvements remain possible

The comparative European study SUNflower+6 that has recently been published shows that the Netherlands can still make improvements. The international research team made the following recommendations for the Netherlands:

- continue the policy of 30 km/h zones and with constructing bicycle facilities, and also striving for qualitative improvements;
- reduce the driving speeds of motorized traffic at locations where they use the same road as pedestrians and cyclists, especially at intersections;
- pay more attention to the relatively high crash rates of mopedists, in particular the 16 and 17 year-olds;
- search for possibilities of increasing the driving experience of young motorists before they take their driving exam, e.g. by introducing types of accompanied driving;
- improve the safety of 80 km/h roads;
- achieve a better harmony between the road layout and speed limits;
- pay more attention to extreme speeding offenders and recidivists and reconsider enforcement policy of them. ◀▶

## Global Road Safety Week 23 - 29 April 2007

At the meeting of the new International Transport Forum's Transport Management Board, which was held in Paris on 28 June last, it is announced that the World Health Organisation (WHO) and UNECE have planned The First United Nations Global Road Safety Week, to be held from 23 to 29 April 2007.

The event will be modeled on previous road safety events, including World Health Day 2004 and the four Road Safety Weeks organized since 1990 by the United Nations Economic Commission for Europe.

The Safety Week theme will be dedicated to *young road users*, as they constitute a major group at risk of death, injury and disability on

the road. The objectives are to raise awareness about the societal impact and costs of road traffic injuries, highlighting in particular the risks for young road users, and promote action around key factors, including drink driving, speeding, helmets, seat-belts and infrastructure issues.

With regard to global activities, the key events for the Week will be held at the Palais des Nations in Geneva, Switzerland, and will include a World Youth Assembly for Road Safety (23 and 24 April 2007) and a Second Global Road Safety Stakeholders' Forum (24 and 25 April 2007). ◀▶

*For more information see [www.who.int](http://www.who.int).*



# The Sustainable Safety principle of 'predictability' examined more closely; More than a matter of road markings

**Predictability is one of the five principles of Sustainable Safety. In a sustainably safe traffic system, correct road user behaviour should be evoked. The desired driving behaviour can only be evoked if the road course is predictable, road design is recognizable and evokes desired behaviour. Which factors determine road users' recognition and, particularly, what does it look like put into practice?**

SWOV recently published a study about *recognizable layout and predictable behaviour* in which the various factors that play a role in recognizability are listed. Existing theories are used as a basis. How do people categorize and recognize objects and surroundings? SWOV also made an inventory of the resources that road authorities currently use in practice to increase the recognizability of roads. Finally, we examined the effects of various road features on driving behaviour. We not only studied the effect of road markings but also features such as separation of traffic modalities and driving directions, kerb reflector posts, and the presence of trees.

## Why this study?

The recognizability of roads is an important principle in the Sustainable Safety vision. Road users who know on which type of road they are driving, also know what sort of traffic situations to expect: intersecting traffic, oncoming vehicles, cyclists, etc., and which traffic behaviour is expected from them. This can prevent insecure



driving behaviour and serious errors. But what actually makes a certain road type recognizable as such, which are the crucial factors here, and can these factors be used to increase recognizability? These are the leading questions for this study, and the follow-up studies that are already being carried out.

## In practice

What is done in practice to improve the recognizability of a road type? SWOV made an inventory of the measures used by road authorities to achieve improvements. Clearly, the existing Dutch guidelines are used by most road authori-

ties to make roads recognizable. However, they are not used consistently or uniformly. This causes large differences in the appearance of roads *within the same road category*, whereas the differences *between road categories* are often small or too small. In any case, the guideline is restricted to the road markings: each road type has its own *marking set*. However, theory and practical explorations have shown that road users use many more aspects than just markings to recognize roads. The type of road surface, separation of traffic modalities and driving directions, edge markings, kerb reflector posts, and other features are also used.

## Effect on driving behaviour

For ten road features SWOV studied what is known in the literature about their effects on driving behaviour. More specifically, we looked for features such as type of road surface, edge markings, types of buildings and/or vegetation and their effects on driving speeds, position on the road, and overtaking manoeuvres. It is known that a number of these features lead to an increase in average driving speed. For example, this is the case when a layer of asphalt has just been laid, and when adding a centre line marking or an edge marking to an unmarked road.

## Conclusion

Road users use different road design elements, among which road markings, to recognize roads. Examples are the presence of buildings and

## According to Aristotle

Theories about how the human brain deals with seeing, categorizing, and recognizing a random object or a random environment stretch back to Aristotle. The most relevant theories teach us that categorizing always precedes recognizing. The more experience and knowledge of particular objects or surroundings people have, the better capable they are of categorizing them at a more detailed level or, quite the opposite, at a more general level.

Categorizing objects and surroundings is also a *flexible* process: in which category an object or surroundings is grouped, strongly depends on the context in which it was observed and

the categorization system that the person uses. In traffic terms: depending on the context in which it is observed, one particular road may be categorized differently by different drivers, and thus evokes different road user expectations and behaviour.

The categorization system used by Sustainable Safety uses fairly detailed levels. For example, it is not so important that a motorist can distinguish a cycle path from a road meant for cars, but it is important that he can distinguish an 80 km/hour distributor road from a 60 km/hour access road. Therefore distinguishing features are necessary to make distinction possible.

## Follow-up studies

The follow-up studies that are already in progress try to answer the following questions:

- How do road users recognize the large variety of roads?
- Does a recognizable layout really result in uniform and safe driving behaviour?
- How can the recognizability be improved and what is its effect on driving behaviour?
- Do road users have sufficient knowledge to recognize the various road categories in detail, or is more information necessary?

We expect the answers to these questions to become available by the end of 2006.

# Present use of blind spot mirrors insufficient: additional measures needed to improve the lorry driver's field of vision

**On Monday 19th June, Minister of Transport Karla Peijs announced the start of a demonstration project in which a large scale test will be done with extra front mirrors and cameras for lorries. These mirrors and cameras should further improve the lorry driver's field of vision and reduce the number of what are known as blind spot crashes.**

Since 2003 blind spot mirrors and/or blind spot cameras are obligatory for lorries in the Netherlands. After an initial decline of the number of road deaths resulting from lorries turning right in 2002 and 2003, during the last two years this number has increased to the level of before the obligation (see Table). The SWOV report *The problem of lorries turning right* showed this. That is why SWOV recommends additional measures.



## SWOV research: danger area is particularly front-right

The current blind spot mirrors and cameras are aimed at the right-hand area *beside* the lorry. The SWOV study showed, however, that the most common point of contact in lorry-bicycle crashes is at the right-hand *front corner* of the lorry. Cyclists who are lined up round that point can not sufficiently be seen by the lorry driver using the current devices. On January 1<sup>st</sup> 2007 new European Union regulations will come into effect. These regulations require all new lorries to be equipped with an extra front mirror *or* an extra camera. This is done to ensure that the front-right area which the lorry driver until now could not see properly, is also visible.

## Demonstration project

The Ministry of Transport will test both the front mirror and the camera for a year. In the test 150 lorries will be equipped with either a front mirror or a camera system. The test results must clarify how both systems work in practice and, more specifically, how the drivers use them. If the test results are recorded accurately, they will provide

Year	Cyclists killed
1997	20
1998	16
1999	15
2000	16
2001	19
2002	6
2003	7
2004	16
2005	15

*Annual number of cyclists killed in crashes with a lorry turning right*

important information about the ultimate location and adjustment of the systems on new lorries after 2007. In addition, the results also make it possible to decide whether it makes sense to equip all existing lorries with these systems.

## General pattern

The SWOV study not only provided knowledge about the most common point of contact, but it also showed that the course of the crashes studied followed a general pattern. It emerged that a cyclist who continues straight ahead takes his right-of-way, whether he is aware or not of a lorry turning right, but does not get it. Most of the crashes involve a lorry turning right that accelerates from stationary, for example at traffic lights. When a lorry is at a standstill the driver apparently has less vision of cyclists who are right next to, or in front of, the vehicle.

## Other measures

Besides the measures which refer to the field of vision, SWOV in its study also recommends other measures to reduce the danger of lorries turning right. Possibilities are:

- preventing lorries and cyclists entering a junction simultaneously, by banning lorries where cyclists are allowed, by giving them separate green lights, etc.;
- installing traffic mirrors at junctions;
- electronic detection of cyclists;
- giving information to cyclists and pedestrians;
- larger front and side windscreens for lorries;
- a ban on heavy traffic in city centres.

*The complete SWOV study is published in report R-2006-2, 'The problem of lorries turning right'. The report can be consulted and downloaded from our website, under Publications.*

vegetation, but also the type of road surface and other design elements of a road. Which of these elements are crucial for recognition, and should therefore be used for in the road design, is currently being investigated.

The question is whether the limitation to road marking, as proposed by the Dutch Essential Recognizability Characteristics guideline, is sufficient. This needs further research. An initial exploration has shown that road authorities do not apply this guideline consistently or uniformly. Seen from the principle of recognizability, this is not a good development. ◀▶

*SWOV report R-2005-17 entitled 'Predictable road user behaviour by a recognizable road design; a theoretical and practical exploration' can be consulted at [www.swov.nl](http://www.swov.nl) under Publications. The report is in Dutch, but it has an English summary.*

## New fact sheet: Driver training in steps

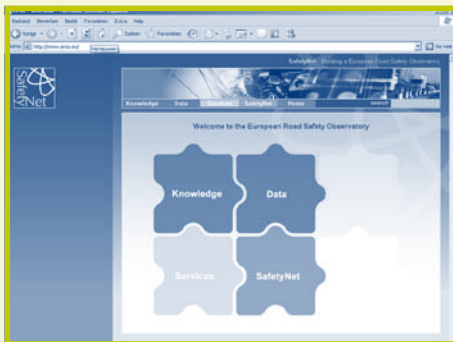
Besides the regular driver training, the Netherlands has been offering the 'Driver training in steps' (DTS) for some years now. In the regular driver training learner drivers have a driving lesson of about one hour, once or twice a week, for a period of between several months and more than one year, until the instructor thinks that the learner has sufficient skills to pass the driving test. The DTS is a structured educational method with well-defined learning objectives, divided over four modules, whereas the traditional driving course does not usually have a formal curriculum or a fixed method. The DTS pays specific attention to road safety. The fact sheet *Driver training in steps* takes a closer look at the DTS and compares the didactic aspects of the DTS and the regular training. ◀▶

# SafetyNet conference in Prague

## 10 and 11 May 2006



**On 10 and 11 May, the first SafetyNet conference was held in Prague. A large number of road safety professionals from every corner of Europe gathered to see how road safety data at all levels, scales, and areas can be improved, extended, and exchanged. Optimizing quality and availability of this data will help us improve road safety policy, and ultimately road safety itself in Europe.**



[www.erso.eu](http://www.erso.eu)

### Presentations

The first day of the conference was filled with presentations, both by researchers as well as by a number of European road safety experts. Stefan Tostmann, head of the Road Safety Unit of the EU Directorate-General Transport & Energy, expressed the importance of the efforts and results of SafetyNet for the realisation of the '50% reduction target' of the European Commission. He revealed that that is the reason for the Commission to consider funding the application of the SafetyNet results.

Not only policy makers, but also a number of renowned European road safety experts presented their ideas about the value of high quality road safety data. Rune Elvik, for example, discussed knowledge transfer of crash data to policy development. He informed those present that there appears to be a negative linear relation between the effectiveness and popularity of a measure: the more effective it is, the less popular. He mentioned speed humps as an example.

### Workshops

The second day of the conference consisted of various workshops in which the various SafetyNet work packages were presented. After the presentations those attending were given the opportunity to ask questions and make suggestions for the contents of each work package. In the workshop on the availability and utility of risk and exposure data, SWOV researcher Sjoerd Houwing presented the progress in the development of Risk and Exposure Indicators. Martijn Vis, senior SWOV researcher, talked about the progress in the development of Safety Performance Indicators (SPIs) and made recommendations for harmonized data collection for SPIs such as alcohol use and speed violations.

### www.erso.eu

An important highlight for SafetyNet and for SWOV was the launching of the website [www.erso.eu](http://www.erso.eu). SWOV is leader of the group developing this website, whose name is an acronym of the European Road Safety Observatory. It has two functions: the first is to provide a window through which SafetyNet's developments and

### SafetyNet: Towards an information system that supports European road safety policy

Work on the European SafetyNet project has now been going on for two years and is about halfway. The primary goal of the project is to develop methods and instruments to enable us to follow road safety in Europe and to be able to compare EU member states with each other. The European Commission considers the SafetyNet project an important step towards a European Road Safety Observatory. This 'observatory' will coordinate all European Commission activities aimed at gathering and analyzing data involving crashes and victims.

results can be seen and followed; the second is to provide a foundation for the eventual Road Safety Observatory website which is being prepared in SafetyNet. The goal of the website is to provide policy makers and other road safety professionals with rapid access to important road safety information and high-quality data. The website is still being developed, but an early launch was decided on in order to already familiarize policy makers with the site and to give them the possibility of steering the site's development.

Currently the site has four sections: Knowledge, Data, Services, and SafetyNet. The SafetyNet section contains information *about* the project. The Services section for instance has a list of links to other organizations and projects. In the Data section you can find both data and information *about* data. The Knowledge section contains web texts about important road safety subjects such as speed, alcohol, road safety management, roads, and vehicle safety. All sections are currently being developed and are continuously being extended.

SWOV's Divera Twisk and Katalijn Ritsema van Eck presented the ERSO website, [www.erso.eu](http://www.erso.eu), in a workshop. Conference visitors were asked to give feedback to the webmasters. SWOV is now using this very useful information to improve the website. ◀▶

### Visitor's reaction

Marjolein Baart, of the Dutch Safety Board, attended both conference days and sent SWOV her impressions:

*"I have certainly learnt at this conference that there is a lot of knowledge available in Europe, but that it takes quite some effort to make this knowledge available and share it with each other. That is why it is important to demonstrate what all this bundled knowledge ultimately benefits road safety stakeholders, so that they will also be stimulated and remain motivated to cooperate with this initiative.*

*Within my work, I will certainly continue to look for knowledge, experiences, and developments elsewhere in Europe. I strongly praise the development of the ERSO knowledge database. For the time being, the design and goal of this knowledge database have been clearly demonstrated in the workshop. Unfortunately however, it has not yet been filled sufficiently because some of the data does not exist or is not available yet in a suitable form. I look forward to further developments in this knowledge database because I am certain that it will be a support for my work".*



# Intertraffic 2006: Visitors from 110 countries

**Intertraffic, the trade exhibition for infrastructure, traffic management, and traffic safety, attracted 23,890 visitors from 110 different countries. The international character of the exhibition was illustrated by the fact that the 690 exhibitors represented 41 different nationalities.**



Announcement of the overall winner Vialis Traffic (second left) by Fred Wegman (right) in presence of Mrs. Peijs, Dutch Minister of Transport (centre).

## Intertraffic Innovation Award

This year there were 82 entries from which the jury selected nine candidates for the awards in three categories: Infrastructure and Safety, Parking, and Traffic Management. From these categories, the overall winner was chosen. The overall winner in 2006, the Dutch company Vialis Traffic with their entry 'ICT in Accessibility', was announced by the vice chairman of the jury, Fred Wegman, managing director of SWOV.

## SWOV at Intertraffic

The SWOV stand, which had Sustainable Safety as a theme, attracted many visitors from both the Netherlands and abroad. There was special

attention for the update of Sustainable Safety, entitled *Advancing Sustainable Safety*. On a scoreboard, visitors could indicate which road safety measure they thought should be given the highest priority at present. They could choose from ten possibilities (see photo). The visitors ultimately placed the greatest value on the uniformity of road layout. Safe school routes also scored high, as did the introduction of Intelligent Speed Assistance and the Alcolock. As a relatively new and unknown measure, the idea of a quality assurance system for roads in the Netherlands received a great deal of support. SWOV looks back on a successful participation in Intertraffic. ◀▶



SWOV stand at Intertraffic exhibition.

## Colophon

Research Activities is a magazine on road safety research, published three times a year by the SWOV Institute for Road Safety Research in the Netherlands. Research Activities contains articles on scientific projects carried out by SWOV and by others.

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# Initiatives to speed up progress toward EU target

**The European Commission has pledged to cut the number of yearly road deaths to no more than 25,000 in 2010. Recent reviews have shown that this target will not be reached unless efforts are stepped up. Several initiatives are taken to speed up the progress toward the EU target. Two of them are presented in more detail in this Research Activities.**

## Road Safety PIN

The European Transport Safety Council (ETSC) has launched a new policy instrument to help EU Member States in improving road safety. The Road Safety Performance Index (also called Road Safety PIN) will compare Member States' performance in promoting safe road user behaviour, infrastructure and vehicles, as well as sound and evidence-based policymaking.

## Founded knowledge

The Road Safety PIN is based on the knowledge and experience of a panel of 27 experts, including one from every EU member state, Norway and Switzerland. A steering group of nine persons ensures that any assessment carried out under the Road Safety PIN is based on scientific evidence.

## Links with other European initiatives

The Road Safety PIN is linked to other European initiatives like:

- CARE, the community database on injury accidents from 15 EU countries (<http://care.cs.ua.edu>).
- SARTRE, the survey carried out among car drivers in up to 23 European countries on Social Attitudes to Road Traffic Risk in Europe (<http://sartre.inrets.fr>).
- SUNflower and SUNflower+6, the comparative study of road safety policies, programmes and performances in meanwhile 9 European countries (<http://sunflower.swov.nl>).
- SafetyNet, the ongoing research project that aims to set up the structure for a European Road Safety Observatory (<http://safetynet.swov.nl>).

For more information on the ETSC's activities see [www.etsc.be](http://www.etsc.be).

## Reports on Road Safety Performance

Recently the OECD publication *Country Reports on Road Safety Performance* is made available on the OECD/ECMT website. The report was prepared by the OECD/ECMT Working Group on Achieving Ambitious Road Safety Targets.

It is based on a survey sent to all 50 OECD/ECMT countries to collect information on road safety trends, recent road safety measures implemented; key road safety issues, measures planned to address these issues and targets set and current results towards these targets. Responses were received from 38 out of the 50 OECD/ECMT countries. In addition, the states of Victoria and Western Australia also provided responses to the Questionnaire. The responses to the survey are completed by other relevant data from other sources (e.g. IRTAD, ECMT statistics, and recent JTRC reports).

It should be noted that the survey focused on specific sectoral elements; it did not however address governance issues and high level policy issues, which will be analysed in the main report of the Working Group. ◀▶

*The full report and individual country reports can be downloaded from <http://www.cemt.org/JTRC/WorkingGroups/RoadSafety/performance.htm>.*

## Publications

**Most SWOV reports are written in Dutch but they all include an English summary. Below is a selection of reports that have recently been published by SWOV. Records of all SWOV reports that were published from 1980 onward can be found on our website ([www.swov.nl](http://www.swov.nl)). Reports that were published in or after the year 2000 can be downloaded free of charge.**

### SUNflower+6; A comparative study of the development of road safety in the SUNflower+6 countries: Final report

Fred Wegman (SWOV), Vojtech Eksler (CDV), Simon Hayes (DSD), David Lynam (TRL), Peter Morsink (SWOV) & Siem Oppe (SWOV) (Editors). (In English).

The SUNflower+6 study makes a comparison of the road safety performances in nine European countries. The project made use of a methodology developed in the original SUNflower project. The results are of potential value for the countries involved, for other countries, and for the European Commission. SUNflower has its own website: <http://sunflower.swov.nl/>.

### SUNflower+6; Development and application of a footprint methodology for the SUNflower+6 countries

Peter Morsink, Siem Oppe, Martine Reurings, and Fred Wegman. SWOV, Leidschendam. (In English).

This report describes one of the goals of the SUNflower+6 project: the development of a methodological framework for a country's road safety footprint. Such a footprint will help to identify strong and weak points, can direct further and more detailed analyses and can assist in showing ways to road safety improvements.

### Predictable road user behaviour by a recognizable road design; a theoretical and practical exploration

Dr. L.T. Aarts, R.J. Davidse, W.J.R. Louwerse, J. Mesken & dr. R.F.T. Brouwer. R-2005-17. 92+13 pp. € 17.50 (in Dutch with an English summary).

'Predictability' is an important principle of a sustainably safe road traffic and it means that the road design must be recognizable for the road user in such a way that he can know what

to expect on different roads, and how he is expected to behave at any given moment. This report is an exploratory study in preparation of further studies of recognizable road design and its influence on the predictability of road user behaviour.

### The problem of lorries turning right; An analysis based on crashes in 2003 and the new European guidelines beginning in 2007

C.C. Schoon. R-2006-2. 26+1 pp. € 8.75 (in Dutch with an English summary).

Despite the compulsory use of blind spot mirrors and camera's from 1st January 2003, the Netherlands still counts victims in crashes with lorries turning right. This study investigates how these crashes could still happen. The report also recommends which measures can further limit the number of crashes, and also looks at the new European measures which will be introduced in 2007.

### Fact sheets:

- Driver Training in Steps (DTS)