Deliverable D4.4 Workshop Report

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EXECUTIVE SUMMARY

SafetyNet Work Package 4 (WP4) organised a workshop in Brussels March, 27th 2007. The aim of this workshop was to consult a variety of road safety stakeholders on the appropriateness and necessity of WP4 Draft Recommendations (SafetyNet 2006b), applicable to and aiming to assure the independence and transparency of road accident investigations and the subsequent investigation data. The workshop was attended by 60 persons including WP4 partners. 47 attendees were not involved in WP4 and out of these 40 filled the workshop questionnaire. The workshop attendees and questionnaire respondents represented 15 different EU Member States and three other nationalities. In terms of professional background, researchers and safety investigators were best represented, but people from policy making, manufacturing and insurance industries and judiciary sector were also present.

The workshop was divided into five sessions. The first introduced the SafetyNet project, WP4 and the work performed during the first three years of the project. Each of the four following sessions presented one cluster of the WP4 Draft Recommendations. External speakers were also invited to present their views on accident investigation. Each session was concluded by a general discussion and an invitation to fill in the relevant parts of the questionnaire. The external presentations, discussions, questionnaire responses and all other comments were constructive. The workshop allowed a large amount of good quality feedback to be gathered. Some of the feedback confirmed what had already been discovered in the six month consultation period that followed the submission of WP4 Deliverable D4.3 Draft Recommendations. Other feedback, from sectors less familiar to WP4 partners, was new. In any case, all feedback will be useful in preparing the finalised WP4 Recommendations for transparent and independent accident investigation.

While the majority of our Draft Recommendations were judged appropriate and necessary by at least 65% of the respondents (26 questionnaire respondents out of 40), three individual recommendations consistently received a lower approval rate varying from 58% to 63% (23 to 25 respondents). In some cases the formulation of an individual draft recommendation was unclear, leaving too much room for interpretation. In these cases WP4 must reformulate the recommendation and then seek the opinion of stakeholders. In other cases, individual recommendations were judged appropriate and necessary for the investigation of certain types of accidents and not appropriate or necessary for the investigation of certain other types of accidents. In these cases WP4 must clearly state the type of accident and the type of accident investigation, an individual recommendation applies to.

Finally, the most widely approved Draft Recommendations will certainly be included among the finalised recommendations, while the most problematic Draft Recommendations might simply not be included. In any case, the feedback gathered during the consultation period, at the workshop and the further feedback that will be gathered between June 2007 and April 2008, will help to considerably enhance the WP4 Recommendations.

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DEFINITIONS

In-depth investigation*: Accident investigation conducted by an investigator with specialized knowledge.

Multidisciplinary investigation*: Accident investigation conducted by a team of investigators with specialized knowledge encompassing several professional disciplines.

***** *ISO definitions. The terms and definitions taken from ISO 12353-1:2002 Road Vehicles - Traffic accident analyses, Part 1: Vocabulary, are reproduced with permission of the International Organization for Standardization, ISO. This standard can be obtained from any ISO member and from the Web site of ISO Central Secretariat at the following address: www.iso.org. Copyright remains with ISO.*

Following the ISO definition, we shall characterise an "in-depth investigation" as an "*accident investigation conducted by an investigator with specialized knowledge*". It follows from this definition that a standard police investigation into a road accident can be considered as an in-depth accident investigation. Therefore an in-depth accident investigation is not necessarily safety oriented.

This is of course a major difficulty for anyone working in road accident investigation for safety purposes and who is used to characterising what they do in terms of in-depth road accident investigation. At the very least one must then add that it is for safety reasons that one is in the field of road accident investigation. Safety oriented accident investigations are usually conducted by investigation teams, which are composed of experts from several fields of knowledge. ISO defines such investigations as "multidisciplinary". It can therefore be said that WP4 is interested in multidisciplinary, safety oriented road accident investigation.

In-depth database: Although widely used, the term "in-depth" with regard to investigation results, such as databases, is misleading. The term "in-depth" in this context does not apply to any qualifications, knowledge or skills of the investigators, which is what makes an investigation "in-depth", but to the quantity of data variables available on an accident in the end product of a process that begins with accident investigations. A safety oriented multidisciplinary accident investigation does not necessarily produce what is perhaps improperly called "in-depth data". "In-depth data" most probably means, when it is used conversationally, highly or very highly detailed data.

We shall define "in-depth data" simply as data resulting from "in-depth accident investigation", whatever the purpose of the investigation. For consistency, we recommend the use of another term for speaking about the characteristics of the end product. When referring to data and databases that have a higher quantity of details on a smaller number of accidents, WP4 shall use the terms ***baseline***, ***intermediate***, and ***highly detailed data*** or ***baseline level***, ***intermediate level***, and ***highly detailed database***.

1 INTRODUCTION

WP4 of the SafetyNet project aims to develop recommendations for transparent and independent road accident investigation in Europe. These recommendations are to ensure the quality of public European road accident investigation data. The work package proposed to develop procedures for evaluating the "independence" of public European road accident databases and draft Recommendations for guaranteeing the "independence" of any future public European road accident database.

As a first step, the meaning of the concept of independence was clarified. SafetyNet Deliverable D4.1 Bibliographical Study (SafetyNet, 2005) provided an analysis of the current legal framework for accident investigation in aviation, maritime, rail and road in Europe and several EU member states. It also proposed an overview of the accident investigation bodies that exist for different transport modes in these same EU member states. The review showed that current practices for dealing with road accidents are quite different from those for aviation, rail and maritime accidents, as is the legislative framework regarding such investigations.

There is a quite thorough legal framework for conducting independent accident investigations in public transport modes, contrary to road transport, which is, to a large extent, private transport (SafetyNet, 2006a). For road accident investigation there is no European legal framework and the organisation of road accident investigations is on ad hoc basis in EU member states. However, in 2003 the European Commission proposed the development of "*independent road accident investigations along the lines of the existing European civil aviation regulations*" (p45).

The SafetyNet Deliverable D4.2 Database Transparency (SafetyNet, 2006a), analysed the differences likely to explain the well perceived need for independent accident investigation in public transport modes and the lack of independent investigation practices in road transport. It also highlighted the fact that the quality of road accident investigation data is undoubtedly a more important issue than the status of the investigating entity. It is the transparency of the investigation process and of the subsequent data that allows a quality assessment to be made.

Having completed our general survey we concentrated our efforts on formulating a set of Draft Recommendations with an initial aim of focussing on fatal accident investigation. Nevertheless, we later decided that we did not want to lose sight of the whole spectrum of road accident investigation from routine accidents to major or special cases. It seems, in light of the Workshop feedback, that our decision was wrong. Attempting to address all accident investigation types made our Draft Recommendations quite heterogeneous. In hindsight, some of the Draft Recommendations seem clearly more appropriate to major or special case investigation, while others concern routine accident investigation. This, however, is a part of the conclusion of this report.

A preliminary consultation was undertaken to assess the appropriateness of the Draft Recommendations and their relevance to potential users as they were being prepared. This involved conducting interviews with key stakeholders and collecting opinions in a short questionnaire at the 1st SafetyNet conference. The main conclusions were that, if recommended, it would be feasible to establish an independent body for road accident investigation, but that the benefits for doing so must be explicitly stated and that there would be a need to clearly define a legal framework within which such a body would operate (SafetyNet, 2006b).

SafetyNet WP4 Deliverable D4.3 Draft Recommendations for Transparent and Independent Accident Investigation—A Working Paper (SafetyNet, 2006b) was completed in November 2006. As the preliminary consultation results suggested some support for an independent road investigation body the Draft Recommendations proposed that a 'body' should be responsible for transparent and independent road accident investigations. The characteristics of this body were defined but how such an organisation could be incorporated in existing investigation activities was not addressed. The project then entered a second consultation period. The aim of this period was to gather detailed feedback and expert opinion about whether the Draft Recommendations were realistic, feasible and necessary, from a variety of road safety stakeholders. The culmination of this consultation period was a workshop which was held in Brussels on March 27th 2007. The workshop was chaired by Martijn Vis from SWOV (The Netherlands). The WP4 partners wish to acknowledge their gratitude for his professionalism in keeping discussions on time whilst allowing attendees to have full and productive discussions.

During the workshop, presentations were delivered on the rational behind the recommendations as well as the recommendations themselves. The day was split into five sessions. The first being an introduction to the SafetyNet project and the issues that surround transparency and independence and the following sessions covering the four clusters of issues which the recommendations addressed: Institutional, Operational, Data and Reports, Countermeasures and the Dissemination of data. Guest speakers were invited to present work relating to the investigation of road accidents and alternative views to road accident investigation. (See Annex A for full programme.)

Feedback on the Draft Recommendations was collected in a number of different ways. Five discussion sessions took place, following each of the WP4 presentations. During these sessions, workshop attendees were able to raise issues that they were concerned about, and ask questions as well as responding to questions raised in the presentations. Attendees were also given the opportunity to make anonymous comments on post-it notes as well as talk to WP4 representatives during the day. In order to gain more structured feedback, each non WP4 attendee was asked to fill in a questionnaire (see Annex B).

1.1 Structure of the Report

The main body of the workshop report is organised to reflect the workshop program. Chapters 2-6 cover each of the five sessions of the workshop. Each of these chapters includes a summary of the WP4 and guest speakers' presentations[1], followed by a record of the corresponding discussion session and the results of the relevant questionnaire sections.

Chapter 7, Analysis of Results, discusses the main points raised by workshop attendees about each of the four clusters of recommendations and identifies issues that need addressing in the development of 'finalised' recommendations. Where appropriate, the results of the preliminary consultation will be discussed alongside the feedback gained at the workshop.

In the 'Conclusions' chapter, issues that apply to the recommendations as a whole are discussed and the future work of WP4 is set out.

1.2 Workshop Attendee Information

60 people attended the SafetyNet WP4 workshop, including the 13 representatives of the WP4 partners (see Annex C for Attendee list). Figure 1 shows the distribution of these 47 non WP4 attendees according to their nationality.

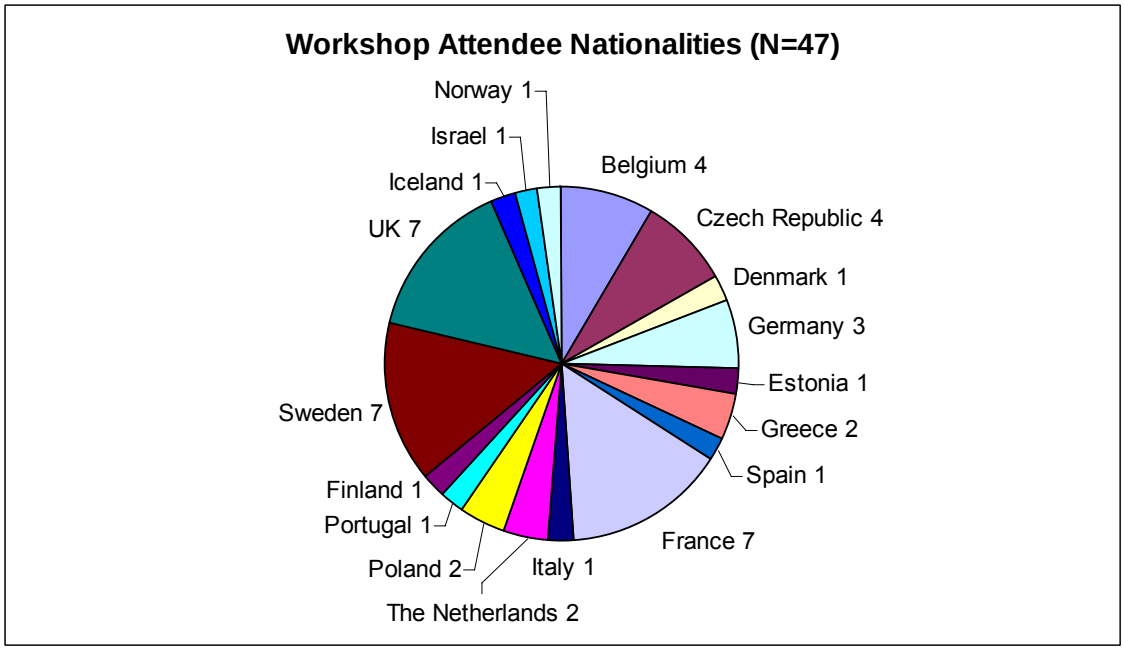


Figure 1 Workshop Attendee Countries

There were 15 EU Member State and three other nationalities represented in the audience. The EU Member State nationalities not represented at the Workshop are mainly post-1995 members. From the 12 Member States that

[1] Copies of all presentations can be found at:
http://www.erso.eu/safetynet/content/wp_4_independent_accident_investigation.htm

entered in 2004 and 2007, only Czech Republic, Estonia and Poland were represented. Raising conscience concerning the importance of road safety issues and particularly of transparent and independent road accident investigation in the EU is not a primary goal for WP4. Nevertheless it is hoped that safety oriented transparent and independent road accident investigation progressively—and rather sooner than later—gets the attention it deserves from policy or decision makers, researchers and the wider public, in all Member States of course, but particularly in the Central and South-Eastern Europe.

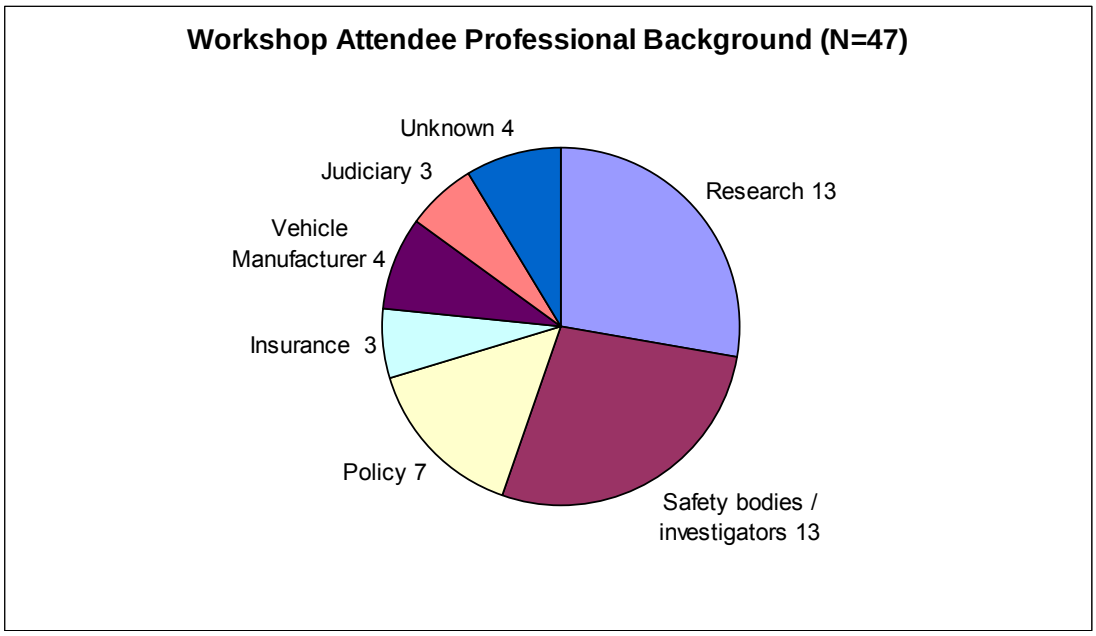


Figure 2 Workshop Attendee Professional Background

The Workshop attendees' presumed professional backgrounds were diverse. Researchers and safety investigators were best represented—with over 25% of the audience for each of these two—policy-making, industry, insurance and judiciary were also represented. Finally there were 4 attendees with unknown professional background.

1.3 Questionnaire Respondent Information

Out of the 47 Workshop attendees not involved in WP4, 40 filled out the Workshop questionnaire. The variety of nationalities observed among the Workshop attendees is well represented.

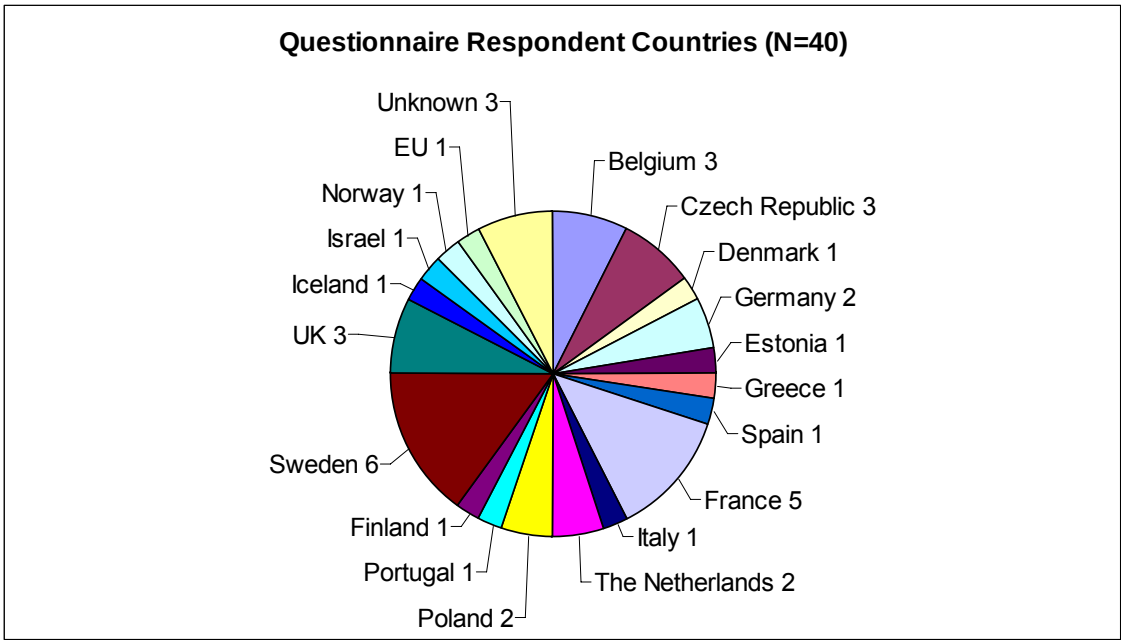


Figure 3 Questionnaire Respondent Countries

Questionnaire respondents were asked to record which category best described their professional background (see Annex B for questionnaire). If more than one category applied, respondents were asked to rank their selections, 1 being the most important. 24 selected only 1 category, 13 selected multiple categories and 3 did not record their professional background. Figure 4 shows the profession background of the questionnaire respondents. All selections are included here with no distinction being made between whether the professional background was ranked 1st, 2nd or were additional choices. If a respondent selected two professional backgrounds then both are represented in the chart.

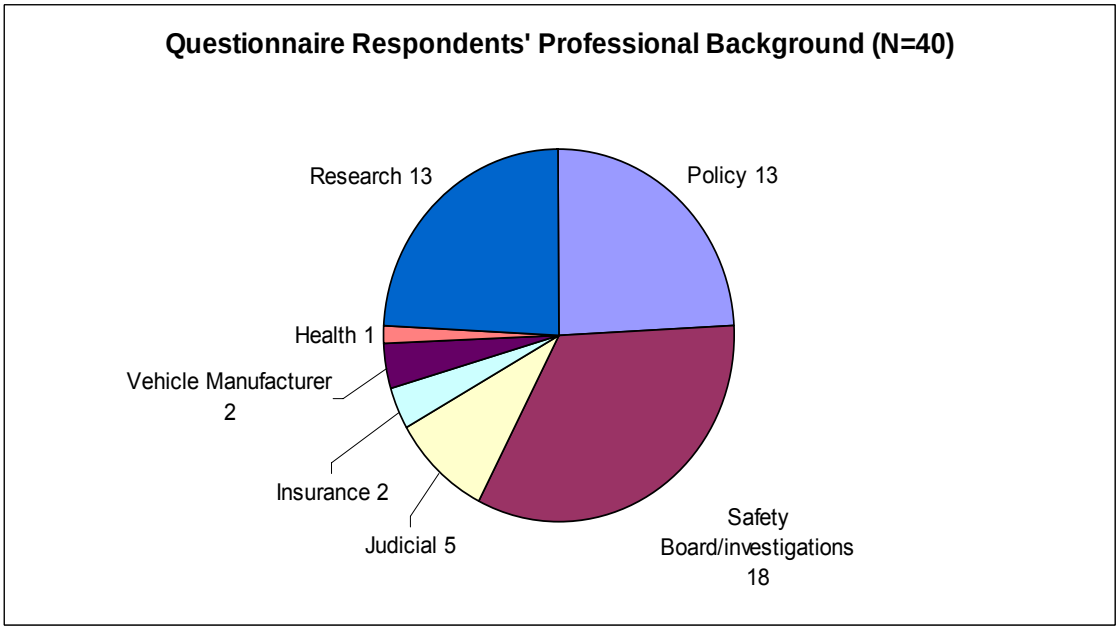


Figure 4 Questionnaire Respondent Professional Background

Figure 5 displays the number of respondents who chose each category as their most important or primary job role and their second most important (secondary). Categories ranked 3rd or 4th were combined in the chart as 'additional' job roles.

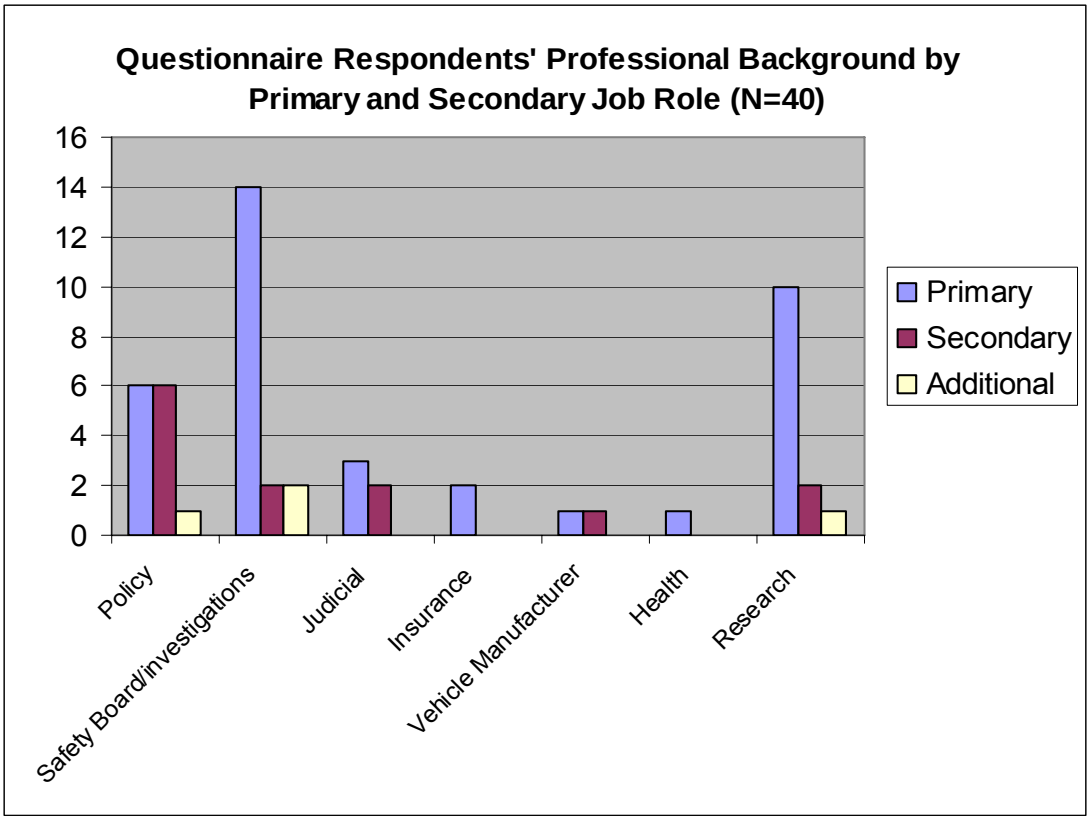


Figure 5 Questionnaire Respondent Professional Background by Primary and Secondary Job Role

The professional background that was most represented by questionnaire respondents was 'safety board/investigations' (18) followed by 'Research' (public and private) (13) and 'Policy makers/support' (13) although research was represented more often than policy for the primary choice.

WP4's aim of reaching audiences outside safety research and accident investigation was successful to a certain extent. Policy making was rather well represented. From judicial, through insurance and vehicle industry to health sector, attendee numbers diminish. It is unfortunate that it was not possible to reach a wider audience in these sectors, given that their involvement, as potential data producers, would be necessary if investigation data is to be collected one day on all relevant fields. Broadening the consultation to include these sectors must be one of the goals of WP4 in the remaining months.

2 1ST SESSION

2.1 Presentations

2.1.1 Pete Thomas: SafetyNet and ERSO

Pete Thomas is the coordinator of the SafetyNet project. His presentation gave an overview of the SafetyNet project and introduced the European Road Safety Observatory (ERSO).

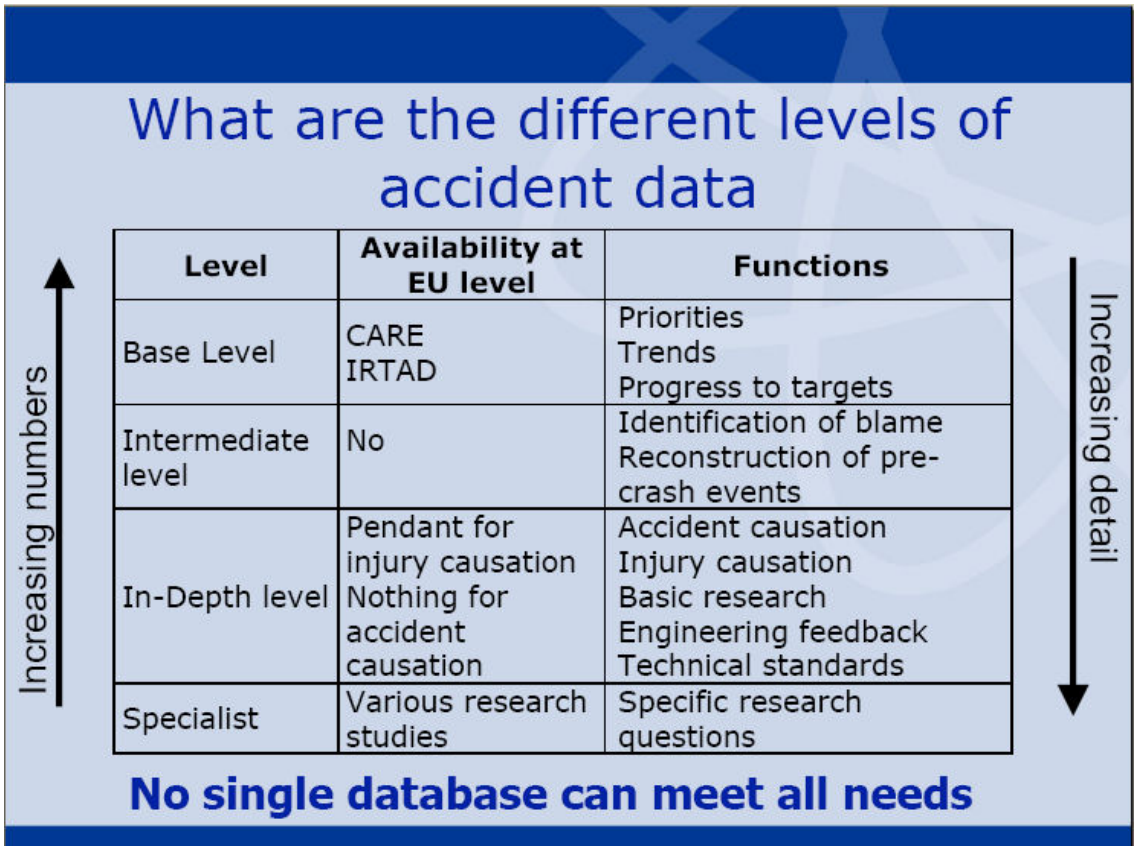
Figure 6 Guest Presentation: SafetyNet and ERSO

Road Safety Priorities can be identified by looking at national level data. This enables, for example, the counting of crashes and casualties, monitoring casualty reduction and international comparisons.

In-depth[1] data can be used to support policies in relation to highway design, road users and active and passive safety. Accident data is an essential part of casualty reduction—it supports government policy and industry product development.

[1] Please refer to the Definitions section for a discussion on the different uses of the term "in-depth".

Levels of accident data:



Level	Availability at EU level	Functions
Base Level	CARE IRTAD	Priorities Trends Progress to targets
Intermediate level	No	Identification of blame Reconstruction of pre-crash events
In-Depth level	Pendant for injury causation Nothing for accident causation	Accident causation Injury causation Basic research Engineering feedback Technical standards
Specialist	Various research studies	Specific research questions

Figure 7 Guest Presentation: ERSO and SafetyNet - Levels of Accident Data

In the Road Safety Action Plan the Commission set out its intention to set up a European Road Safety Observatory as a pilot project which would coordinate Community activities in the fields of road accident and injury data collection and analysis (European Commission, 2003: 48).

SafetyNet is a European Commission supported integrated project designed to build the data framework of the Observatory. The project work is carried out by 21 partners in 18 countries. There are 7 work packages; 1-3 dealing with macroscopic level data (CARE development, Exposure data, Safety Performance Indicators); 4 and 5 are in-depth work packages (Recommendations for transparent and independent road accident investigation; Fatal accident and accident causation databases); and 6 and 7 address data application (website, data analysis).

The Observatory; www.erso.eu was launched in May 2006. It brings together a broad ranging coordinated set of accident data; will become a core activity of the EC; give wide support to road safety policy and provide new resources for governments and industry.

2.1.2 Heikki Jähi: Introduction to SafetyNet Work Package 4

Figure 8 WP4 Presentation: Introduction to SafetyNet WP4

The first WP4 specific presentation attempted to address two issues concerning transparent and independent accident investigation and the recommendations SafetyNet WP4 proposes.

1. Clarify the meaning of independence and of transparency with regard to road accident investigation for safety purposes.

Transparent and independent road accident investigation for safety purposes is first of all different from accident investigation for judicial purposes, whether these are conducted by police forces or experts appointed by court. Transparent and independent investigation has a broader focus: it does not take a stand on responsibilities but aims at grasping the global phenomenon of road accidents. When accident investigation for judicial inquiry and for safety purposes is conducted by the same body it is not realistic to expect that both approaches are used simultaneously and that both investigations are always conducted as far as possible.

Similar arguments can of course be applied to any other investigating entities with more than one mission. A regulatory body, a manufacturer or another stakeholder with vested interests might not always conduct an investigation with safety being the sole perspective in mind. An independent investigation body can be defined as an entity able to function and finance its investigations without ad hoc external financing from parties with vested interests; as an entity

that is able to investigate and publish its findings as it sees fit; and as an entity with a mission to conduct accident investigations for safety purposes, that is free from outside control while doing this.

Transparency means that information is available on what the investigating entity does and how the entity does it, as well as on the results of its investigations. Transparency means that anyone who wishes to evaluate the quality of a data set can access the necessary information for doing that. The investigating entities must be transparent in their practices, so that the public can trust them and the results of their investigations.

2. Explain why coordinated pan-European transparent and independent safety oriented accident investigations should be carried out.

There is of course a lot of interesting EU-level information already available on road accidents, namely through CARE database. What we know, for instance, is that there were 43'401 persons killed on EU-25 roads in 2004. In just over a decade there has been a decrease of over 26% in the number of annual road fatalities. However, one European out of three will still be injured in a road accident during his or her life time. For Europeans under 45 years of age, road accidents are the most frequent single cause of death. Road fatalities alone still cost some 60 billion Euros each year and if taking into account all socio-economic costs of road accidents, that figure should be multiplied by over three.

In light of actual trends, the ambitious aim of halving the number of European road fatalities in a decade, by 2010, seems out of reach. Road safety is not improving quite as fast as it should and the goal of not more than 25'000 road fatalities will not be attained by 2010. In improving road safety we need to base our actions on sound facts. Basic information is available through CARE, but detailed, representative EU-level data on accident circumstances, accident causes and contributing factors is something that we do not have. While this may not always be an obstacle to efficient policies, sometimes it clearly is.

Detailed, representative data can be obtained through coordinated safety oriented in-depth[1] accident investigations. It is with regard to this kind of in-depth[1] accident investigations that the question of transparency and independence of the investigation processes is the most acute. Transparent and independent accident investigation activities provide valuable data of an appropriate level of quality that can be mobilised for the identification of opportunities for casualty reduction and the design and implementation of efficient policies. In short, conducting safety oriented accident investigations can contribute to major social and economic savings.

What is lacking, unfortunately, is accurate EU-level cost-benefit data that would allow making comparisons between the cost of any specific countermeasures and the savings that would be generated through them. Independent and

[1] Please refer to the Definitions section for a discussion on the different uses of the term "in-depth".

transparent road accident investigation, resulting in representative EU-level data, should prove useful here too.

2.1.3 Jesus Monclus: ROSAT report

In 2004 the European Commission set up a group of 12 experts to assist it in defining its strategy for transport accident investigations. Among its tasks this group has issued recommendations on methodology issues—which are common to all modes of transport—and recommendations for road accident investigations (ROad Strategy for Accidents in Transport Working Group (ROSAT), 2006). Jesus Monclus is one of the authors of this ROSAT report on recommendations for road accident investigation.

Figure 9 Guest Presentation: ROSAT Report

The EC Expert Group on Accident Investigation in the Transport Sector was established as a result of the Commission's wish to explore the possibilities of extending existing legislation on independent accident investigation to all modes of transport based on the experience of air transport. The creation of this expert group had been proposed in the EC's *White Paper on European transport policy for 2010: time to decide* (EC, 2001).

RO-SAT's Mandate was to:

- take the objective to improve safety and security with regard to all modes of transport

- advise the Commission on strategy in the field of independent investigation;

- examine methods, frameworks and policies on accident/incident investigation and if appropriate advise the EC on the need to carry out benchmarking studies or to centralise investigation.

- Advise the commission on the formulation of common European methodological elements for independent accident and incident investigations

The transport areas covered by RO-SAT were aviation, maritime, rail, road and pipelines. The experts forming the Road transport subgroup were Jesus Monclus, Lars-Göran Löwenadler and Reinhold Maier. The group searched existing bibliography and performed an analysis of the legislation in the various transport sectors. They also held a number of hearings with a variety of road safety experts to examine existing investigative practices and structures.

Figure 10 shows the identified levels of accident investigation:

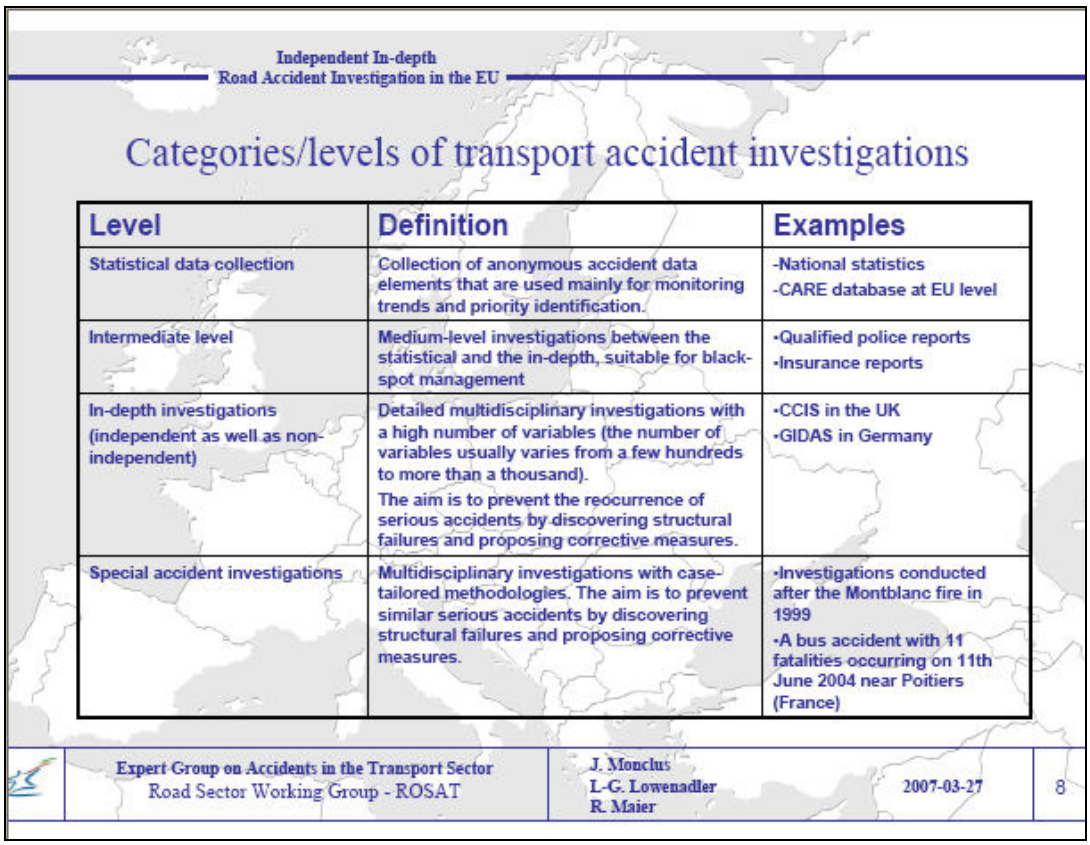


Figure 10 Guest Presentation: ROSAT Report - Levels of Road Accident Investigation

The Working Group identified the following conditions for independence:

- The accident investigation authority shall be set up permanently and carry out its task impartially.

- Its independence (functional, financial and legal) should be guaranteed.

- It should be separate from authorities responsible for the establishment or enforcement of safety requirements.

The working group defined "independence" in road accident investigations as,

> *the structural and financial ability to decide what and how to investigate and to publish the results of the investigations*

To explore possible relationships between judicial and technical investigations, the UK Memorandum of Understanding (MoU) between the Crown Prosecution Service and the Air, Maritime and Rail Branches was examined as a "best practice" example. Two of the issues which the MoU addresses are the sharing of evidence and which agency's investigation has priority. The MoU concludes that:

> *The public interest requires that safety considerations are of paramount importance, the consequence of which may mean that the interests of an accident investigation board investigation have to take precedence over the criminal investigation.* (ROSAT, 2006:27)

Existing accident investigations at a national level were considered through the examination of practices in Sweden, Germany, Great Britain, France, Finland, The Netherlands and Norway. The Dutch Safety Board provides a possible model for cross-modal accident investigations. To explore the European perspective the CARE database, the SafetyNet project and EU directives were examined.

A European safety agency exists for each of the air, marine and rail transport modes but the RO-SAT working group neither explicitly supports nor discourages the creation of a European Road Safety Agency at this stage. However the group does call for the continuation of debate on the possible tasks such an agency could perform. For example, development of legislation on goods and passenger road transport; cross-boarder issues and support to in-depth[1] technical road accident investigation in Europe.

Some conclusions and recommendations of the RO-SAT road transport working group:

- Statistics are not enough; police or other intermediate-level investigations are not enough. In-depth[1] independent technical multidisciplinary investigations should be a core ingredient of road traffic safety policies.

- It is necessary to promote special ad hoc safety investigations into accidents of European-wide importance…

[1] Please refer to the Definitions section for a discussion on the different uses of the term "in-depth".

- All countries should have a system in place for the technical independent investigation of road accidents.

- A Safety Investigation Authority for road accidents should be set up in each Member State—this could be part of an authority investigating all kinds of transport accidents.

- The European Commission is advised to launch a broad debate in order to establish mechanisms and tools for exchange of best practice on road safety investigation.

2.2 Discussion Session 1

Rob Gifford, Parliamentary Advisory Council for Transport Safety (PACTS), GB

Comparison between road and other transport modes is difficult because the other transport modes are public transport rather than private use of public space. It is not only the difference in use across public/private modes that makes comparisons difficult—it is the differences in the legislative framework between the two. This is not easy to overcome. Are the new legal framework and institutions that would be required really necessary?

Distinguish between the principles and the structure. Principles are more important than structural approach. Each Member State needs a structure guided by principle not necessarily a body. Do the countries that have put in place the principles need a new structure to cope with a new activity?

What are the basic principles of road safety? And if they are working (according to decrease shown in statistics) then why do we need a dedicated body. We are already reducing casualties.

Jesus Monclus, ROSAT, Centre for Industrial Technological Development (CDTI), Spain

There are as many road deaths in one day compared to one year in other transport modes.

There is no legal obligation to investigate road accidents. That there is no legislation is surprising.

Motivation for work is driven by large scale problem. Lessons don't seem to be learnt from similar accidents, the process is not working on an EU level.

There is an opportunity to learn from other countries. It depends on the country, some will need a new body put in place others will not.

Lars Göran Löwenadler, ROSAT, Volvo Truck Corporation, Sweden

There is a need for deep independent investigations—particularly the severe accidents. The organisation undertaking the investigations needs to be independent.

There are different levels of accident investigations. Severe accident investigations need to really be independent but everyday accidents are different and independence isn't as strictly needed.

Jean-Paul Repussard, European Commission

It cannot be said that the reduction in casualties is something that will continue by itself. The reduction over the last few years has mainly occurred thanks to the large reduction in countries such as France. In some countries the number of fatalities stagnated and even went up. And this is also the case in several countries for the last few months!

It isn't by chance that the best performing countries are also the ones with more independent road accident investigations.

Marjolein Baart, Dutch Safety Board

Investigating road traffic accidents is important but does the responsibility lie only with independent investigation boards?

The Dutch Safety Board focuses on those accident investigations where structural safety deficits are expected (e.g. problems that are not known or not recognised yet), not on investigating all road traffic accidents for evaluating existing policy. The latter is the responsibility of the Road Authority, as an important part of the policy cycle (plan-do-check-act).

J-G Koenig, Director of BEA-TT, France

The BEA-TT investigates in 5 different fields and in the road accident area there are around 5 investigations per year which will be developed further.

When BEA-TT publishes reports they have an impact on local stakeholders. BEA-TT recommendations are closely observed. However these don't influence policy, only stakeholders. Reports are public therefore assert pressure on stakeholders. BEA-TT has not observed effects on policy makers. What is the contribution of in-depth investigations to policy? When conceiving policy on road safety, what was the basis for it?

In France, there are not sufficient numbers of in-depth[1] investigations to directly influence policy. In-depth[1] statistical analyses can also give relevant information. Therefore a clear link needs to be established between

[1] Please refer to the Definitions section for a discussion on the different uses of the term "in-depth".

independent in-depth[1] investigations and their DIRECT influence on policy and casualty (fatality) reduction. There should be some examples between in-depth[2] investigations and policy (could WP4 do this?)

Tougher enforcement of the road speed regulations has been an important success. What was the basis? Not in-depth[1] investigations, rather the pressure of associations of victims (road safety groups etc.) asserting pressure on the public. Pressure from public opinion drove the change in speeding etc. Also the realisation that speed was a huge factor in crashes—but no one knew to what extent. This policy led to a reduction of fatalities from 8000 to 5000 per year. Scientific knowledge has existed for a long time.

France has used data from specific studies in other countries to develop policies. For instance no French data is available in large enough volumes on the use of mobile phones whilst driving—in this case data comes from Canada. The effect of this policy is not yet known.

A study commissioned by the directorate of roads, the management of lateral obstacles (SETRA), by studying the occurrence of accidents involving obstacles within a distance from the road [e.g. lamppost 1m or 2m from road], led to a national policy to remove/ protect these obstacles. This was the result of in-depth statistical analysis rather than in-depth investigation.

Other studies have developed policy from statistical studies, not from in-depth[1] accident investigations. It is useful to do in-depth[1] investigations in other modes but not necessarily for the mass modes.

In-depth investigations are useful and important but the link between investigations and policy has not yet been established. It is important to do so.

2.3 Questionnaire: General issues

There were two issues that apply to every section of the recommendations about which the workshop attendees' opinion was asked. The first was about the concepts of transparency and independence and the second addressed the coordination of investigation activities at an EU level.

Due to the initial focus of SafetyNet WP4, independence is the key characteristic of an investigative body as described in the Draft Recommendations (SafetyNet 2006b) based upon the definitions described in the first WP4 deliverable, *Bibliographical Study* (SafetyNet, 2005). The importance of transparency became apparent when examining what makes a good quality database. See SafetyNet Deliverable D4.2 (2006a), *Database Transparency* for further details. However these deliverables did not explicitly state which one of these characteristics—independence or transparency—best applies to investigation processes for each of the different types of accident (injury accidents, fatal accidents, major accidents or special cases). To assess

[1] Please refer to the Definitions section for a discussion on the different uses of the term "in-depth".

the workshop attendees views on the issue, the following question was included in the workshop questionnaire:

Do you consider transparency or independence to be the more important factor in safety oriented road accident investigation?

Response choices were: “Independence is more important”, ”Transparency is more important” and ”Independence and transparency are equally important”. The attendees could also add written remarks.

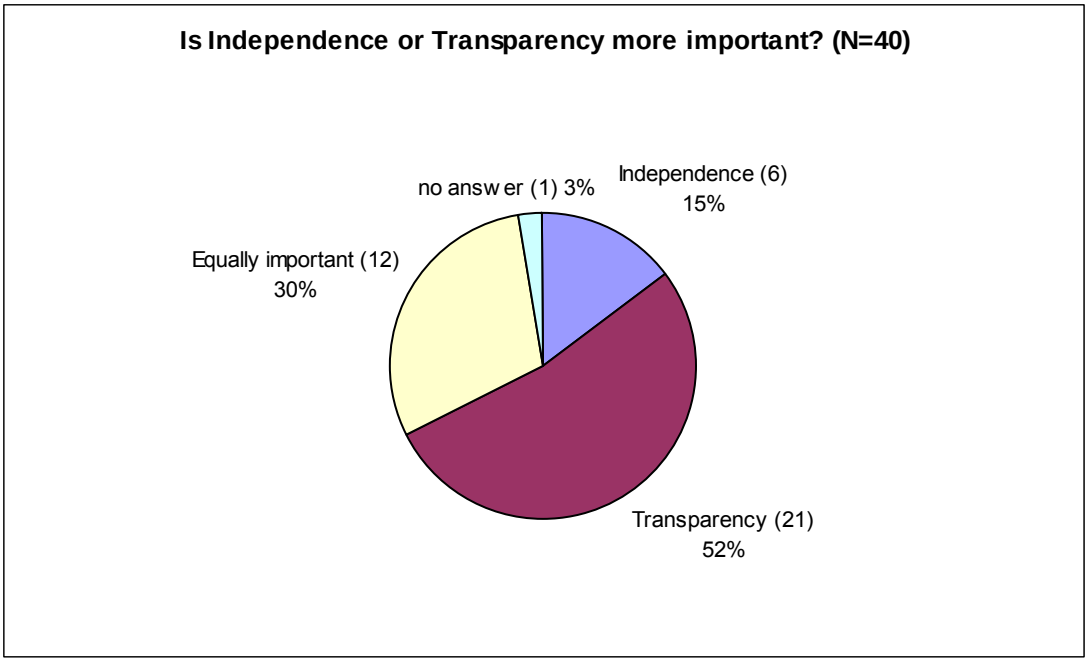


Figure 11 Questionnaire Results: Is Independence or Transparency more important?

Just over half of the workshop questionnaire respondents (21) believed that transparency is more important than independence in accident investigation with only 6 stating that independence is the more important.

One remark suggested that transparency was the most important “*for the large amount of daily accidents*” but that transparency and independence are equally important “*for severe accidents*”.

Another asserted that “*the key word is reliable/believable/credible and both independence and transparency are necessary.*”

These results raise a number of questions about the appropriateness and necessity of the Draft Recommendations. For example, independence is the key characteristic of the investigative body described in the Draft Recommendations (SafetyNet 2006b: 18-19) but the independence of the investigation body might not be the most important attribute for every road accident investigation.

The second issue related to EU level coordination of investigation activities. The Draft Recommendations suggest that some level of EU coordination would be required but the details of this were beyond the scope of the document. Two questions were asked in the workshop questionnaire. The first was intended to gauge opinion about whether EU coordination should exist and the second asked whether stakeholders thought that ERSO would be an appropriate framework within which to continue the work of SafetyNet WP4.

Do you think that transparent and independent accident investigation activities should be coordinated at EU level?

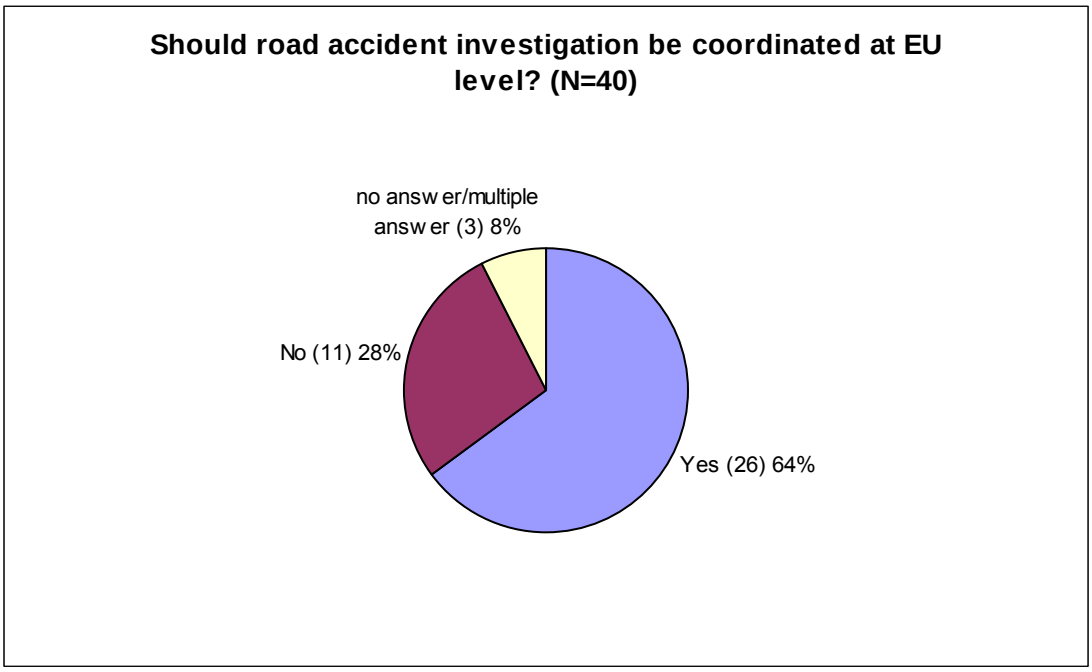


Figure 12 Questionnaire Results: Road Accident Investigation Coordinated at EU Level

Opinion appears to lean towards the acceptance of EU coordination of investigative practices however some concerns were expressed.

The advantage of EU coordination was thought to be that it would encourage Member States to improve their own investigation practices: "*This will produce a pressure at national levels to improve the efforts*"

In general it was thought that EU coordination should facilitate the sharing of best practice rather than determine what and how accidents should be investigated. Respondents also considered it important to allow differences between Member States as road safety problems are unlikely to be precisely the same for all countries: "*There is some value in having EU co-ordination as long as national profiles are sustained and comparisons with other countries profiles are possible*"

SafetyNet project has set up ERSO. Do you think this framework would be suitable for continuing WP4 work, namely considering the EU-level coordination issues?

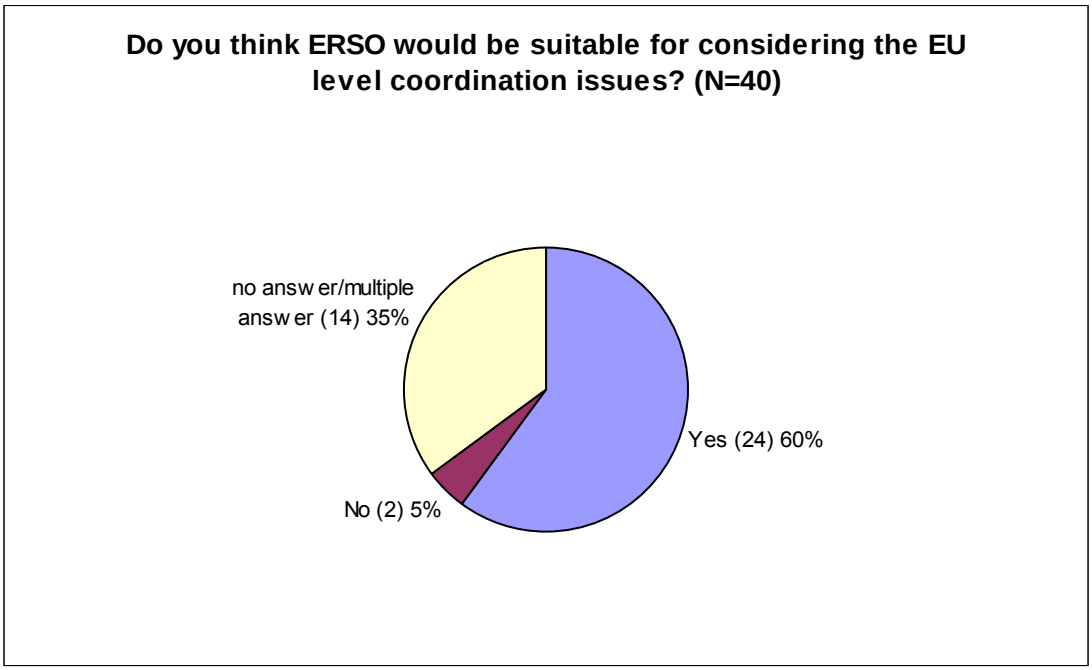


Figure 13 Questionnaire Results: ERSO and EU level Coordination

Figure 13 shows that many more people answered 'yes' to this question than 'no' however a relatively large number gave no answer. This may be due to an uncertainty about what ERSO is/will be. The comments given reflect this. One respondent who gave no answer, commented that it "*depends on the influence and power of the organisation*" and another answered 'no' "*unless ERSO becomes a full representative institution at EU level*". More positively, a yes respondent remarked that ERSO may be a good framework "*for sharing information*". These remarks also indicate that some respondents assumed that ERSO was being put forwards as a possible coordination body rather than as was intended, a framework for exploring the structure of a coordination body and how it should operate. Regardless of the work the ERSO might undertake in the future, its current function of making road safety information available EU wide, and the need to continue to develop both European accident investigation and ERSO itself, make the idea of combining the future development of these two activities into one framework convenient and logical.

As for the coordination itself, it appears that in general, respondents were in favour of some level of EU coordination of investigation practices that facilitate the sharing of best practice and comparisons between different countries.

3 2ND SESSION

3.1 Presentations

3.1.1 Michael Weber: EVU and the QUERY Project

Michael Weber is the author of the Query Report. The QUERY Project was initiated by the European Association of Accident Research and Analysis (EVU) and received funding from the European Commission. The EVU aims to establish a European network of 'accident reconstructionists'—specialists who reconstruct accidents to provide evidence for the judiciary system—and examine how their professional profile fits into the various legal systems in Europe.

Figure 14 Guest Presentation: EVU and the QUERY Project

EVU has set itself the task of EU-wide harmonisation of reconstructionists' professional profile to an appropriate standard. The purpose of the QUERY project was to develop best practice guidelines for accident reconstructionists with respect to training, certification and knowledge exchange.

The reasons for analysing accidents may be; prevention—punishment of culpable action; just distribution of civil law costs; compensation and the improvement of vehicle safety.

The advantages for Europe of the QUERY project are the harmonisation of standards, a database of specialists and an improved exchange of knowledge.

QUERY report proposes a definition of professional profiles:

- *Accident reconstructionists* reconstruct the unfolding of an accident on the basis of objective evidence (hired by courts of law or disputing parties)

- *Accident researchers* are less concerned with the reconstruction of traffic accidents than with the actual unfolding of an accident (passive or active safety of vehicles)

A distinction needs to be made between *accident scene examination* (collection of evidence and data) and *accident reconstruction* (use of scientific methods to draw conclusions based upon evidence collected at the accident scene). Accident scene examination is, in most of Europe, carried out by police officers with specialist training. Gathering evidence at the scene of an accident requires a lot of responsibility and should be carried out by trained personnel. Accident reconstructions should be performed by persons with an academic qualification.

It was found that reconstructionists are called to the scene in:

- 80% of EU countries, this varies according to accident circumstance:

- 86% of countries call in case of death & serious injury.

- 27% when fault is difficult to determine.

- 36% when a vehicle fault is alleged.

In Eastern EU countries, engineers and physicists undertake accident investigation whilst in Western Europe, academics and police officers tend to carry out this task so there is a fundamental difference in the background of investigators.

The Netherlands and Great Britain do not agree that the reconstructions should only be carried out by those with formal academic qualifications.

In these countries there is no clear distinction between the qualifications required in “routine” on-scene investigations (done by police throughout Europe) and specialist reconstructions (also frequently done by police in The Netherlands and Great Britain). However, the UK Road Death Investigation Manual states that in complex accidents where a specialist knowledge of, for example the laws of physics, is required, a balance must be struck between the importance of practical experience (police) and specialist knowledge (academic/scientists). “Experts” should be called in when necessary.

Some countries, for example the UK, use one expert for each party in a trial however it is more common within the EU to use only one ‘joint’ expert. This puts great demands, especially when there is only one expert, on qualifications and moral integrity. Therefore a system of quality needs to be established.

The QUERY report recommends that reconstructionists should attain a standard level of qualification and there should be a certification process which will ensure that those awarded the title reconstructionist have the appropriate technical knowledge.

In conclusion:

- A clear distinction between accident scene examination and accident reconstruction should be made.
- Suitable training and guidelines are required for accident scene examination.
- Accident reconstruction should be carried out by those with an academic qualification.

3.1.2 Kalle Pakkari: Institutional issues.

Figure 15 WP4 Presentation: Institutional Issues

The need for independent transport accident investigation has been widely recognised in Europe. In 2001, European Transport Safety Council (ETSC) published *Transport Accident and Incident Investigation in the European Union* and stressed the need to extend the principles governing independent accident investigation in aviation to rail, marine and road transport. ETSC recommended "*the application of independent accident investigation techniques to representative samples of road crashes*" and the development of "*co-ordinated*

independent European road accident investigation strategy". The need for independent investigations was also mentioned by the European Commission in its White paper, *European transport policy for 2010: time to decide* (2001) and in *Saving 20 000 Lives on Our Roads* (2003). ROSAT group of experts dealt with the same issues last year. Still, there is no European strategy for independent investigation of road traffic accidents at this moment.

Accident investigation in other transport modes is now steered by European directives or international agreements. Road traffic may have something to learn from what is done in the other modes. Currently there are some existing bodies conducting road traffic investigations. For example, in the USA, National Highway Transport Safety Agency conducts road accident investigations. In Australia, the Transport Safety Bureau conducts investigations in other modes and acts as a coordinator on road traffic issues. Sweden launched in 2003 its Road Traffic Inspectorate which monitors road safety developments, co-operates with other institutions and initiates research. In Finland the Ministry of Transport and Communications set up in 2001 a cooperation body, Accident Investigation Delegation, which consists of key ministries and other stakeholders and steers the road safety investigation work in Finland.

Our Institutional Recommendations aim at assuring the structural, financial and functional independence of the investigation body. Structural independence means that the body should be separate from regulatory and judicial bodies and that the body and its investigators should have legal status. While the safety investigation should be conducted separately from the police investigation, they should not obstruct these investigations so some co-operation should not be ruled out. The legal status of the body and of the investigators would strengthen the emphasis for impartiality and independence. Legislation would make it possible to access information from the judicial enquiry and other entities, and regulate the information the body and/or investigators may release. Legislation should also determine who appoints the members of the investigation team, what kinds of expertise should be included, and guarantee that the investigation team is able to conduct investigations independently and impartially.

Financial independence means that the body has its own budget and the autonomy to decide upon it and that it does not depend on external financing from stakeholders with vested interests. Funding an independent investigation is of course a difficult issue: money always comes from somewhere and in a way the government is also a stakeholder. Nevertheless successful practises from other transport modes include funding from national budget. Another option is the so called grants-in-aid, which are used for example in the UK to finance Accident Investigation Branches for other transport modes. Other questions that need answering are: who decides on the budget, who proposes and who accepts it, who looks after the use of budget? A truly independent investigating body would have autonomy to decide on these issues. The important point in here is that funding should not steer investigations. The investigating body has to have some control over the budget, which should remain relatively constant to avoid sudden changes in the scope of activities of the body because of lack of funding.

Functional independence means that the body has autonomy to decide what kind of accidents are investigated, that it has the right to have access to evidence and that it can publish the results of the investigations without further scrutiny. The body should have autonomy over the decision to investigate, the focus and the scope of an investigation. For transparency reasons predetermined accidents should be investigated. The body should not work in isolation. National and international policy objectives can feed needs into investigation and help determining action plans. Wide co-operation with all stakeholders is necessary. Use of data should also be kept in mind when making the action plans, scientific research for instance might have some specific data needs.

Granting such wide rights to an investigation body means that it should work in a transparent way. In that way the body allows the quality of its work to be assessed. Some aspects of that kind of transparency are that:

- the investigation body publishes a method which describes how the investigations are conducted
- the investigation body publishes an action plan, detailing what kind of accidents are investigated
- the investigation body publishes the results of the investigations

The basis for an institution is of course its members, in this case the investigation teams. Independent accident investigation should be carried out by one or more multidisciplinary teams with special knowledge across number of relevant areas, like scene and vehicle examination, accident reconstruction, interviewing and medical issues. Investigators should have extensive experience and knowledge on road safety issues. Their expertise will guarantee results that can be trusted and respected. Constant training is needed for reaching these high standards and in the case of many teams to ensure uniform standard of data across the teams. There should remain a possibility to draw more resources if needed including outside expertise depending on the case. Investigation body should be able to use appropriate amount of expertise in each case.

3.2 Discussion session 2

Jan Unarski, Institute of Forensic Research, Poland

Where are we at this moment? 25 years spent trying to harmonise expertise but we are still asking what “in-depth”[1] analysis is?

In many countries we know what is meant by in-depth[1] analysis and therefore questions can be answered by this. In-depth[1] needs to be defined before any analysis can begin—what are the levels for investigation? One can hope that 70% of cases in Germany are analysed and adequate reports are drafted but in

[1] Please refer to the Definitions section for a discussion on the different uses of the term “in-depth”.

some countries this isn't so, so there may be some problems defining what it is. It will be easy for Germany and the Eastern European countries.

Shalom Hakkert, Technion, Israel

Investigation to improve road safety was not mentioned at length in Mr Weber's presentation—rather-more about the judicial process thereby limiting the value of the presentation from an independent point of view.

Most points from Weber were for the judicial system—this has nothing to do with independent accident investigation. Judicial processes have no relation with pure road safety. Judicial process does not relate to other factors which are important for safety (like the human side).

Michael Weber, EVU, Germany

We always investigate with the specific intention of establishing how the accident (and injuries) could be avoided. There is no interest in the results for safety from a judicial process. But this can be passed to institutions where this can be done.

Dr Andreas Schepers, Federal Highway Research Institute (BASt), Germany

What is the aim of the independent investigation and the aim of the body that would be set up?

How does this accident investigation body fit into existing structures?

Data is not always collected for reconstruction but for other purposes (e.g. in the GIDAS project).

Rob Gifford, PACTS, UK

There is a strong case for independence—separate from State. The UK independent Air/Marine/Rail Accident Investigation Branches can be asked to look at a particular issue by the Secretary of State for Transport. This is a two way process as the body might choose what it wants to look at as well as being commissioned by the government or otherwise to undertake investigations on behalf of the policy-makers. In this way the body can serve not only data needs, but also general policy requirements

3.3 Questionnaire: Recommendations on Institutional Issues

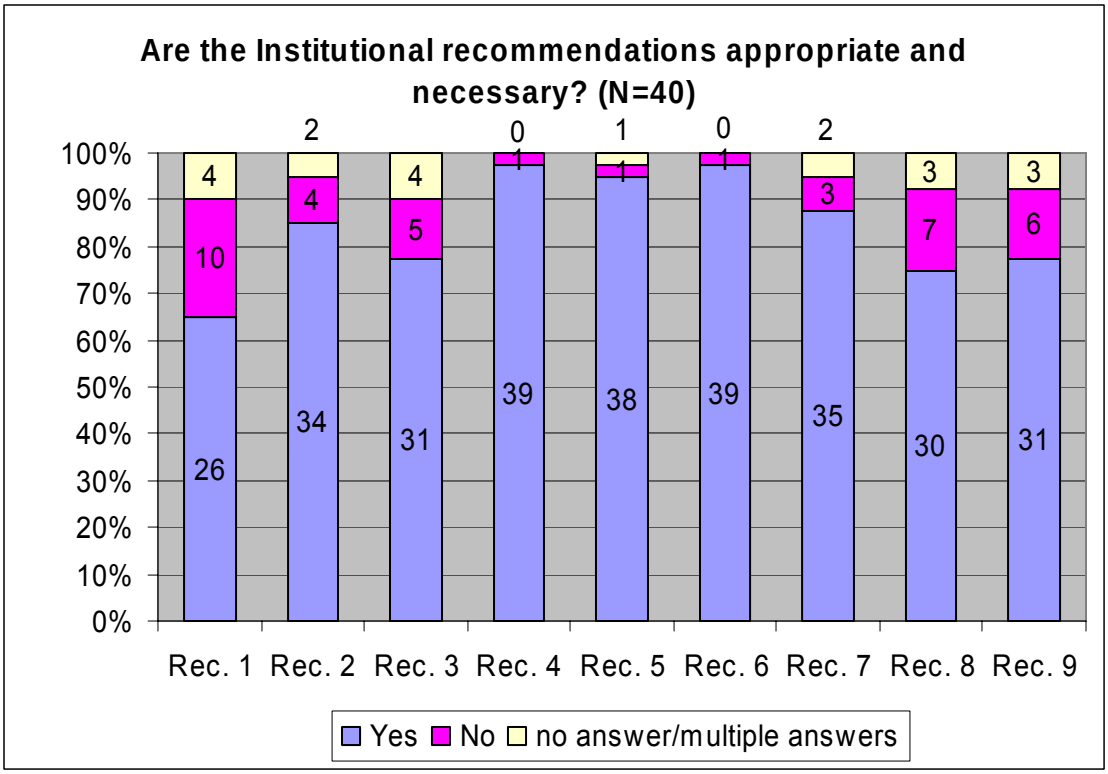


Figure 16 Questionnaire Results: Institutional Issues

The range of support for the Institutional recommendations was between 65% and 98%. The institutional recommendation gaining the least support was recommendation 1 while recommendations 4 and 6 gained the most support.

1. The Road Accident Investigation Body should be independent in its structure, function and finances and its investigations should be carried out with as much openness and transparency as possible. Its investigations should be independent of regulatory authorities, manufacturers, and organisations whose vested interests lie in the data collected.

This recommendation generated a mixed response. Comments ranged from "*Probably the key recommendation of all*" to "*[I] see no added value in an independent road accident body [because of the road accident investigation activities already conducted in their country]*"

Remarks corresponding to 'no' were generally due to the belief that investigations should include contributions from stakeholders (e.g. manufacturers, the police) "*accident investigation requires the contribution of any authority, manufacturer etc.*"

Another objection was that existing investigations carried out by non-independent bodies, can be adequate and that law can be used to protect the investigation.

> *…in Finland good results have been obtained by the co-operation of VALT [financed by insurance premiums], Finnish Road Administration, etc. The investigation team act in the independent way regulated by the special law.*

Although 26 people stated that the recommendation was appropriate and necessary, some also gave cautionary remarks suggesting that an independent body would be hard to achieve in practice "*very hard to create*" and that it might be limited in scope "*this can never cover the broad range of accidents*".

These comments suggest that an emphasis on all aspects of independence may not be realistic or even necessary. However the rights of the investigators and of the body need to be clearly stated in law.

2. The Road Accident Investigation Body should have control over its own budget and should not rely on external funding to carry out investigations.

Recommendation 2 met with general agreement. Most concerns related to the latter half of the recommendation, 'should not rely on external funding to carry out investigations'. There was a belief that external funding could benefit investigations by making them participate more actively in road safety missions, "*Stakeholders can be effectively engaged in road safety measures*", or by reducing existing obstacles, "*external funding should be authorized in some way otherwise blockings may arise*".

There were concerns that state assigned funds "*may not guarantee that the budget fits the needs*" and that some countries would have to use external funding initially. The general belief appears to be that it is not whether or not funding is external that is important, but rather that the investigative body has the autonomy to decide how to send its budget: "*It could well be financed by others as long as their function is independent. But the body should have the control*."

Emphasis was also put on the transparency of the body: "*it should be clear from where funding is coming*"

Generally, respondents believed that the first part of the recommendation is important, but the second part not so. However it was also made clear that if external funding is allowed then transparency is imperative.

3. National and international policy objectives regarding road safety should feed into the investigation process but would not determine it. The agency should remain autonomous with regard to what is investigated whilst considering the data needs of policy-makers and other stakeholders.

There was good support for this recommendation. A common point of view across the different answers (yes, no, no answer/multiple answer) was that national policy makers should be able to ask the investigative body to look into specific cases/issues: "*A government might commission an independent study of, for example, motorcycle fatalities*."

Other remarks also emphasis the importance of allowing some kind of stakeholder input into what should be investigated:

> *In order for investigations to be of value they must have national/stakeholders support. There may be issues that could be highlighted at different levels where further investigations could have benefits.*

This suggests that the mixture of consideration of the data needs of stakeholders and autonomy of the body to decide what to investigate is finely balanced.

4. Individual countries should have the autonomy to investigate accidents that are of interest to their national priorities.

Unsurprisingly, following the remarks made about recommendation 3, there was very high agreement with this recommendation. Generally remarks reflected this with the caveat that European Union wide issues should also influence which accidents are focussed upon: "*but the European perspective on the safety problem must be kept in mind*"

Two reasons given for the support of recommendation 4 were that the recommendation would allow the utilisation of existing bodies and for national differences: "*yes up north we have snow and ice, elks, snow mobiles*"

General opinion can be summarised by the following remark:

> *In order for investigations to be of value to each Member State they must be able to investigate accidents [important] to them. There may be a role for EU/a co-ordinating body to identify higher level of cross national issues*

5. Independent accident investigation should be carried out by one or more dedicated multi-disciplinary teams with specialist knowledge across a number of relevant areas.

6. Accident Investigators should have extensive experience and knowledge of road safety. Investigators should receive additional and comprehensive training in accident investigation to ensure uniform standard of data across the member states.

Both recommendation 5 and 6 also gained a high level of support. In relation to recommendation 5, cost was stated as a consideration "*yet again cost problems can occur*" and it was suggested that the "*skills of these teams should be clearly defined*". The majority of remarks about recommendation 6 were in relation to the latter part 'to ensure uniform standard of data across the member states'. For example one comment pointed out that, "*There is benefit to be gained from trying to ensure consistent data is collected and such data is high quality (as it is collected by specialists)*", but another warned that "*European standardisation isn't that easy*".

For both recommendations it was suggested that police officers could be part of an investigation team.

7. The investigation team should also have access to external expertise. This expertise may lie, for example, in Engineering, Traffic Control Systems and Human Factors

There was overall support for this recommendation with suggestions about what external expertise might be needed: "*other expertise: Safety management, health, safety and environment (HSE), organisational issues and decision making, system safety.*"

Two out of the three people who disagreed with this recommendation believed it to be "*not necessary*". Those who gave no answer pointed out that external expertise may compromise an investigative body's independence: "*Yes and no… external expertise and calling for it can compromise some important prerogatives*"

8. For each accident, the investigation body should establish the most appropriate investigation team. This may involve drawing on the expertise of other organisations.

For this recommendation, support dropped to 75%. The lower support appears to originate from this recommendation's suggestion that a 'new' investigation team is put together each time an accident occurs. The comments of those disagreeing with this recommendation highlight that it would be "*too expensive and complicated*" to organise such a structure for all accidents. The comments also stress the importance of "*a core team with basic expertise*" to obtain the best results.

This raises questions about how appropriate recommendation 8 is if a large number of road accidents are to be investigated.

9. The Road Accident Investigation Body should recruit and place on-call a team of experienced and trained interviewers to assist in the conducting of interviews and the taking of witness statements.

The necessity of a team of 'interviewers' who are separate from the main investigation team is questioned both by those who support it: "*Each inspector of accidents should be trained and experienced in performing interviews*"; and those who do not: "*People doing the investigations would have this as one of their necessary attributes*."

It was suggested that the need of a specialist interviewer could be satisfied by a psychologist being a core member of a multidisciplinary team as occurs for EDA and VALT investigations in France and Finland respectively.

Concerns were also raised about potential conflicts with the judicial enquiry: "*This could be in some countries very delicate. Interviewing the witnesses is the task of the legal system.*"

In this way the questionnaire responses mirror concerns raised in the workshop discussion session 3 about 'vulnerable' witnesses being questioned twice—once by the police and again by independent investigators.

One of the remarks suggested that the necessity and appropriateness of this recommendation "*depends on the accident*". It may be more important in the investigation of very severe but more rare accidents than those of a more 'everyday' nature.

4 3RD SESSION

4.1 Presentations

4.1.1 Rachel Elliman: Operational Issues

Figure 17 WP4 Presentation: Operational Issues

The Operational recommendations were summarised, then the current situation of road accident investigation was examined. Generally it is the police who are responsible for investigating road traffic accidents throughout the EU member states with additional more specialist investigations in some countries for fatal or very serious accidents. The similarities with the operational recommendations are, that the police routinely attend the accident scene while the vehicles are still in situ and have rights of access to evidence and witnesses. The biggest difference is in the focus of the investigation. Police investigations focus upon collecting factual evidence to establish whether an offence has been committed. In contrast, investigations purely focused on road safety aim to collect information to aid the development of countermeasures and prevent future occurrences. This difference leads to differences in the types of information collected.

Few countries have a published investigation manual. The UK has the Road Death Investigation Manual and the Finnish Motor Insurers Centre (VALT) publish VALT method–both detail investigation procedures. These are

designed to be used to investigate fatal accidents, although VALT method is sometimes used for investigations into other types of accident.

As it is difficult for police investigations alone to meet the requirements of a safety focused independent and transparent road accident investigation, examples of road accident investigation in the European Union was examined. Characteristics such as the investigation area and when investigators attend the accident scene were compared for the following studies: The German In-Depth Accident Study (GIDAS), The UK On The Spot study (OTS), the French EDA study, VALT investigations and the Swedish Road Administration in-depth investigations. Looking beyond Europe, the Australian Enhanced Crash Investigation was examined. This study used retrospective methods to investigate accidents with the aim of generating accident countermeasures. How the differing practices of these studies compare to the operational recommendations was also presented.

Issues surrounding two consultation questions were then discussed:

The first was *Which system of investigation should be used?* The two main systems are on scene and retrospective. Neither is superior and there are advantages and disadvantages for both.

For on-scene investigations the ISO[1] (International Standardisation Organisation) definition was used: "*Accident investigation conducted at the accident scene with the purpose of collecting on-scene information before physical evidence has been removed."* This allows the collection of volatile information such as marks on the road to be collected but on-scene investigation is costly.

Retrospective was defined as when the investigation is initiated at least a day following the accident. This allows a wider investigation area.

The second consultation question was, *Which accidents should be investigated?* Three criteria were used to explore this: injury severity (fatal, serious, slight, no injury/damage only), road user (e.g. vulnerable, public service) and geographical/sample (national, regional or road type)

A sub question was also discussed: *Should accident investigations represent the national picture?* Samples were presented as a solution to the problem of there being too many road accidents to make investigating all accidents a realistic goal.

[1] ISO definitions used with permission. See *Definitions* section.

4.2 Discussion Session 3

Pete Thomas, SafetyNet Coordinator, VSRC, UK

We are not necessarily recommending the creation of new a body. However, we do need good information and to identify mechanisms that will give us that information.

An infrastructure that could be identified for safety purposes—for example, enhancing the judicial systems or investigations of accidents of special interest (e.g. large coach crash on motorway with many fatalities).

Another type of crash investigation is that undertaken to provide underlying data for policy support. Could be something done by researchers or other bodies.

Mr Geert van Waeg, Johanna.be & International Federation of Pedestrians (IFP), Belgium

When an accident occurs (especially fatal ones) there are a lot of people around who are in shock. Wouldn't it be difficult for them to have to reply to all the different questions from different people (police, investigators etc.)

How do you address the human needs of a crash scene—being questioned is distressing to road users/witness. If you had 2 teams on scene, police and independent investigators, there would be too many people.

How do SafetyNet question the involved without impacting them unduly?

Martijn Vis, Chair

It is a trade off between getting the volatile information and affecting the involved.

Heikki Jähi, SafetyNet WP4 co-leader, INRETS

We are not saying we should investigate accidents with no respect to the people involved. In the VALT team there is a psychologist, we're not here to investigate accidents regardless of the human costs.

4.3 Questionnaire: Recommendations on Operational issues

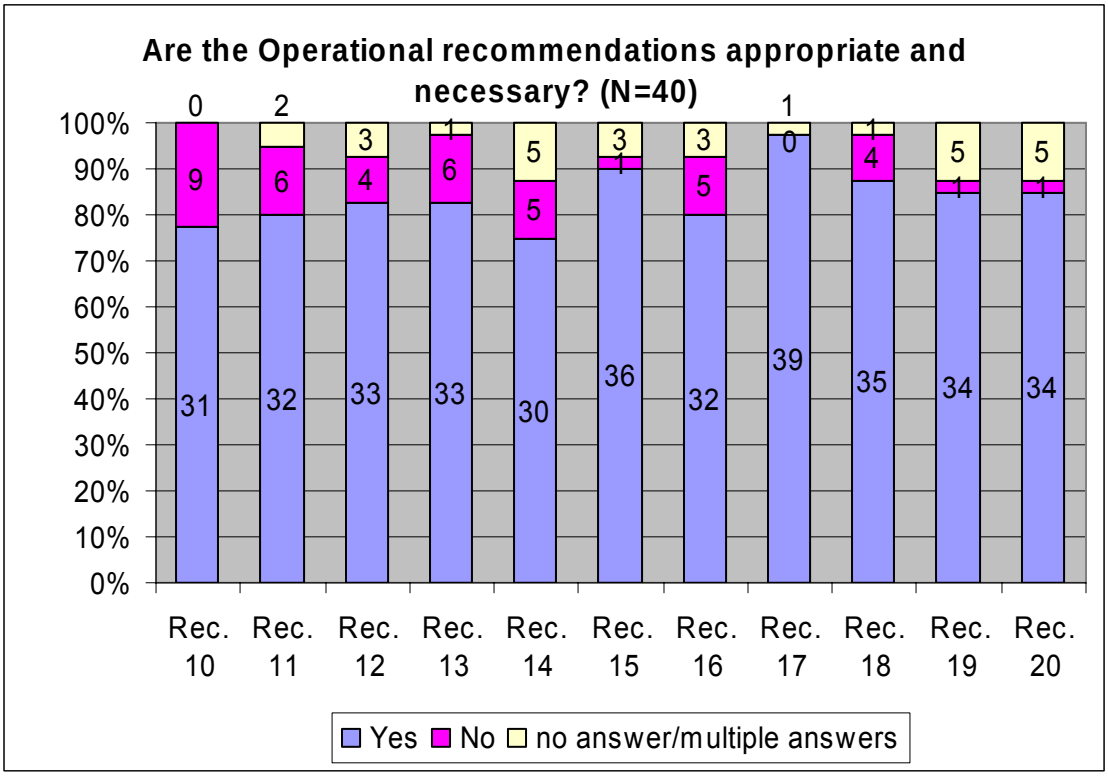


Figure 18 Questionnaire Results: Operational Issues

Overall, the operational recommendations received the most support with a range of 75%-98% answering 'yes'. Recommendation 17 was the most supported out of all the recommendations, with no one answering 'no'.

The Operational Recommendations, although not explicitly stating so, lean towards on-scene methods of data collection, however, the presentation delivered at the workshop demonstrated the benefits of both on-scene and retrospective data collection methods and this is reflected in the questionnaire remarks.

The first three Operational recommendations deal with the issues surrounding the notification of accidents to the investigation team:

10. The Road Accident Investigation Body should be notified of accidents at the same time as the emergency services to allow immediate access to the accident scene.

11. Alerting members of the investigation team should take place according to the procedure and order agreed on between the emergency services and the investigation team. Procedures should be in writing and state the member of the investigation team acting as contact person, how information is communicated and the time frame within which this should occur.

12. Standard information about an accident should be communicated to the Road Accident Investigation Body to enable the investigation team to determine whether or not the accident falls within the scope of the team's investigation programme

All three received comparable levels of support (78-83%) with 'immediate notification' being considered synonymous with on-scene investigation for many e.g. "*volatile information is crucial*".

Respondents emphasised the importance of priority for the emergency services and that "*cooperation with the police is needed*". There were again concerns about multiple teams (police and independent investigators working at the same site: "*It is very complicated when two teams must work on [the] same places, which focus is most important?*"

This suggests that consideration needs to be given to whether it is necessary for two teams to be present at the accident site and that procedures are needed for determining whose investigation takes priority and/or organising cooperation with the police.

There was support for the use of selection criteria to determine which of the notified accidents should be investigated. "*maybe not all accidents, but a selection with certain criteria and later on the scene for other accidents*."

There were also suggestions that on-scene investigations and therefore immediate notification would be less important in some cases: "*But it is not absolutely necessary—to a certain extent and for some objectives retrospective data is okay*".

The advantage of retrospective methods here is that the potential for conflicts with the emergency services is reduced.

Concerns were also expressed that 'data privacy' issues should be taken into account when passing information between the emergency services and the investigation team(s).

In conclusion, the remarks for recommendations 10-12 suggest that different recommendations for notifications might be needed depending on the type of accident investigated and the objectives of data collection.

13. Scene examinations should take place as soon as possible following an accident in order to gain accurate information and record volatile data.

Although this recommendation received good support (83%), those agreeing also warned that this kind of investigation is "*limited by resources, geography [and] time*" and suggested that investigations "*could also be 1-5 days [later] if police do a good scene examination*".

These ideas were also reflected in the comments of those who did not state their agreement. It was suggested that "*other bodies, e.g. police or rescue*

service can collect such types of data" and that it "*depends on the objective—on the spot information costs a lot and is not required in all cases*".

The aim of the investigation may be more important than the investigation method used. It would appear that the message of the workshop is that on scene methodology is desirable but that there may also be a valid place for retrospective methods in road accident investigation:

> *If it is agreed to have an in-depth[1] accident investigation system that is at the scene then such an assessment of the site is required but retrospective accident investigation or use of other sources may also be valuable in in-depth[1] analysis.*

Retrospective methods, however, would mean some reliance on police information which would be a move away from 'independence' as defined by SafetyNet (2005) and recommendation 1. These issues require further examination.

14. Investigations should be safety focused and kept separate from the judicial enquiry into the same accident. The aim of data collection should be to establish the immediate and underlying causes of the accident and injuries.

Three view points were expressed about the relationship between independent investigations and judiciary enquiry: that they should be completely separate; use some judicial information but retain autonomy in what to do with it—"*However in cases where the team cannot arrive on scene, it can cooperate with police to obtain additional information, but with no strings attached*—and that information "*could and should be used for judiciary purposes*".

Again a balance may be required between the demands of true independence and the need for cooperation with the police.

15. An investigation manual should be produced to document the basic level of data collection for all accident investigations. This document should include concise and explicit accident investigation protocols enabling consistency in data collection across the member states.

16. The accident investigation manual should be a published document and freely available in order to reinforce the openness and transparency of investigations.

There was a high level of support for recommendation 15 and a slightly lower level for 16. The manual was generally thought necessary in order to achieve "*a high quality and transparent approach*" to data collection and "*for comparison between countries*". The main concern about 15 was that it should allow for differences between Member States: "*but one must keep in mind the differences between the countries (for example winter, road types…)*"

[1] Please refer to the Definitions section for a discussion on the different uses of the term "in-depth".

One comment offers a solution to this: "*[Yes for] basic level of data, differences within the Member States could occur regarding additional information*"

However it is acknowledged that 'basic' and 'additional' level data may need defining.

The main objection to 16 appears to be the level of availability and therefore transparency: "*This would open door to discussions—methodology document should be kept confidential*"

Again, the aim of the investigation may have a bearing on the appropriate level of transparency. Transparency is an important factor in gaining public confidence in the quality of an investigation. It is therefore unlikely that recommending that methodology documents are kept confidential is either appropriate or necessary.

17. Data collected, according to the investigation manual, should build a complete picture of:

a) What took place

b) Why it happened

c) The consequences

d) How the accident and/or injuries could have been prevented.

This recommendation gained almost universal support with only one person giving no answer. Few remarks were made, however one may have wider significance: "*point (d) is not special valuable from one accident, particularly when occur from human cause*"

This suggests that multiple accidents need to be considered together to reach valid conclusions. This potentially has implications for the Data and Reports, Countermeasures and Dissemination of Data sections of the recommendations.

18. Member states should define, in the framework of their respective legal system, the legal status of the investigation that will enable the investigators to carry out their task in the most efficient way and within the shortest time.

19. Road accident investigators should have the legal right, where appropriate in cooperation with the authorities responsible for the judicial enquiry including the police, to*:*

a) Access to the scene of the accident

b) Access to all the vehicles involved in the accident

c) Access to evidence in vehicles including data stored in on board data recorders such as tachographs.

d) Access to information about the rescue operations.

e) Examine traffic regulatory systems and records of their use and installation

f) Examine roadside installations (e.g. street lighting, crash barriers) and records relating to their use and installation.

g) Access to records relating to the road layout design and road surface materials.

h) Examine the results of medical examinations and post mortem reports for injured road users.

i) Question all witnesses.

Both recommendation 18 and 19 deal with the legal aspects of accident investigation and gained fairly high levels of support. The majority of the 'rights' in recommendation 19 gained agreement. A legal framework was considered important by one respondent because: "*Otherwise the investigators can't work in an impartial and independent way*" and for another, "*You can't write a reliable report if you don't have very broad legal rights.*"

However, concerns were expressed about 19h and 19i and can be summarised by the following remark: "*It depends on positive co-operation and exchange of data. 19h may require ethical approval and 19i should only be considered when there are demonstrable benefits over and above existing information…*"

In other words, police witness statement data should also be considered. Another respondent also suggested that due to the sensitive nature of questioning witnesses: "*It would be more realistic to say: Evaluation of the witness reports done by the police or judge*."

In addition a third respondent commented that the legal rights in recommendation 19 are "*valid for an investigator committed to an 'agency' and investigations operating under certain conditions directed towards i.e. fatal accidents*"

The above comments suggest that these 'legal' recommendations apply best to independent investigators working for an independent body which produces individual accident reports. However as described previously, the idea of an 'independent body' did not meet with universal agreement at the workshop and subsequently recommendation 1 attracted a lower level of support than most of the other recommendations.

It was also stated that recommendation 19 was not appropriate and necessary "*for all accidents and accident investigators*". The scope of both these recommendations requires consideration in light of all the above comments.

20. The purpose of the investigation and criteria for data collection should be disclosed to all people and agents involved in the accident. They

should receive honest and open explanations about what the investigation is for and who will use the data collected. The answering of interview questions should be optional and the contact details of those conducting the investigation and interviews should be disclosed to the road users and witnesses involved.

Again there was a high level of support for this recommendation. There was contradictory opinion about whether the answering of questions should be voluntary, as in the recommendation, or made compulsory: "*… answering should be voluntary for many reasons*", "*but some level of collaboration with safety investigation should be required by law, otherwise access to evidence would be seriously threatened*"

It was also asserted that it is important that "*interviews should remain confidential*" but if there is a risk that information could be used in court then: "*you must be honest with the people. If answers can be used in court you must say that this risk exists.*"

There was an overlap between the remarks made in recommendation 19i and 20 suggesting that 20 goes some way to addressing the ethical concerns expressed about 19i.

Two operational issues had not been fully addressed by the Draft Recommendations (SafetyNet, 2006b). The first being which system of investigation should be used (on-scene; retrospective) and the second being which type(s) of accidents should be investigated. In order to gauge the opinions of those attending the workshop, these questions were added to the questionnaire.

Which system should be used to investigate road traffic accidents?

Response choices were: "On Scene", " Retrospective" and " Mixture of on scene and retrospective". The attendees could also add written remarks.

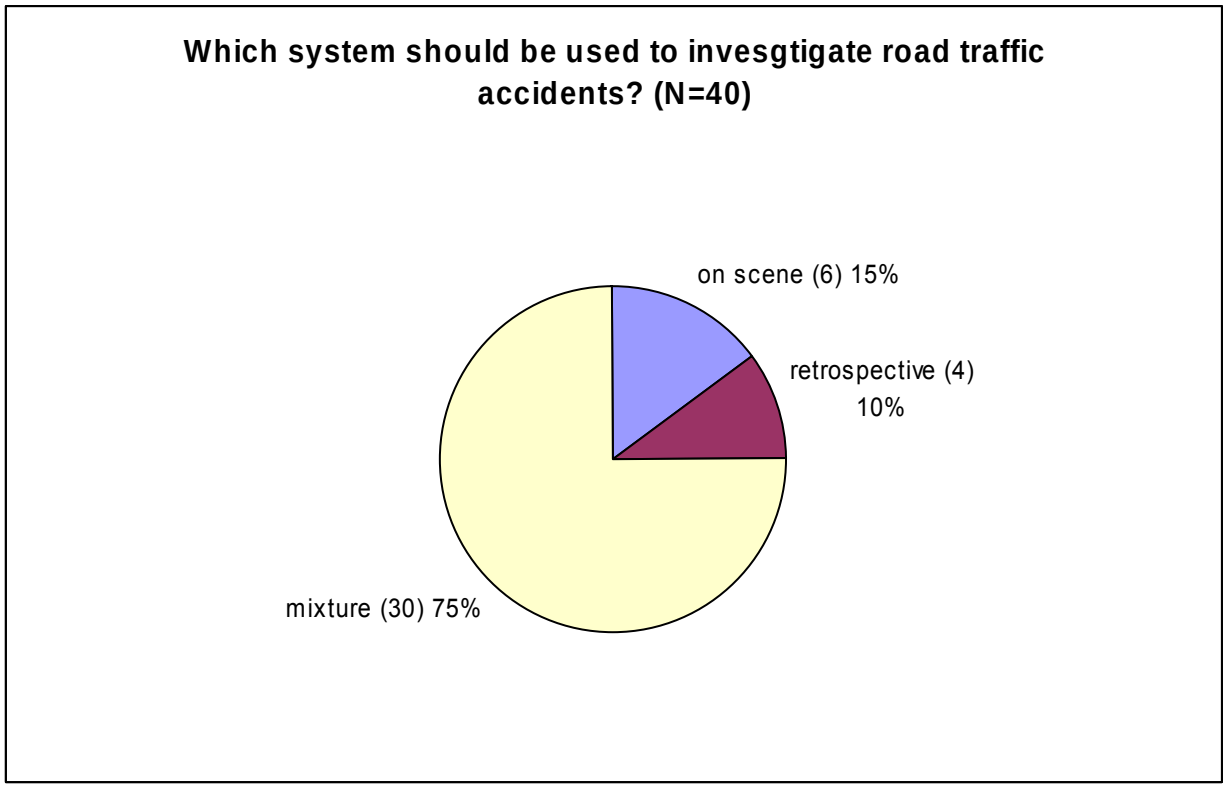


Figure 19 Questionnaire Results: System of Road Accident Investigation

The majority of questionnaire respondents thought that a mixture of on-scene and retrospective methods should be used in independent road accident investigations. Many of the remarks suggested a reason for this is that the investigation method chosen depends on a number of variables including the type of accident to be investigated, the investigation area and the available resources. "*There is a big trade off between cost and coverage. A mixture does seem a favourable solution.*"

The reasons given for preferring retrospective methods were: "*on scene is very expensive and time consuming. Retrospective studies are most of the time sufficient information.*"

Again respondents indicated that "o*n-scene [investigation] could be done by the police*".

The questionnaire responses to this question and recommendations 10-13 suggest that on-scene methodology is valuable and that some on-scene information is required for the vast majority of investigations. The repeated suggestion is that retrospective investigations should use police data for this on-scene data.

The issue about which accidents should be investigated is much more complex than the type of investigative method that should be used. The following question was asked in the workshop questionnaire:

Which road traffic accidents and how many of each should be investigated?

	All	A sample
Fatal accidents	☐	☐
Injury accidents	☐	☐
As defined by national research programme	☐	☐
As defined by European research programme	☐	☐
Other	☐	☐

Respondents were able to give multiple answers and were given an opportunity to comment on the type of samples required as well as to give general comments.

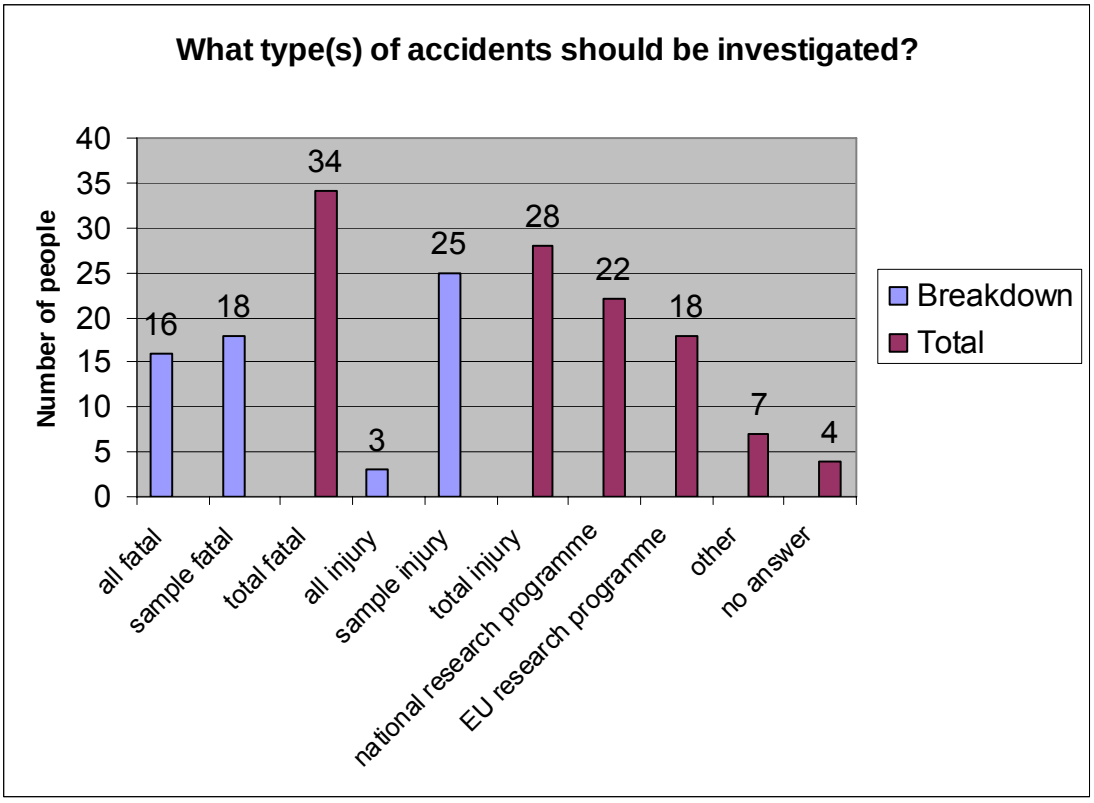


Figure 20 Questionnaire Results: Types of Accidents to be Investigated

36 out of the 40 who filled in questionnaires gave an answer to this question, the vast majority of which made between 2 and 4 selections. That fatal accidents should be investigated was indicated by 34 people, 16 of which would like *all* fatal accidents to be investigated. Of those who want injury accidents to be investigated most wanted a sample to be used. There was slightly less support for following a European research programme than for following a national research programme. 18 respondents included both fatal and injury

accidents in their selection and an equal number chose investigations according to national and EU research programmes.

A variety of other types of accidents were suggested, for example, "*pre-identified research issues (crash barriers, mobile phones, drugs etc.)*"; "*commercial transport*" and those with "*large learning potential*".

Remarks reflected a 'conflict' between the ideal numbers of accidents to be investigated and what is realistic: "*Ideally all injury accidents should be investigated but it is of course economically impossible and also not necessary to get sufficient information for future improvements.*"

Comments also indicated that samples should be taken on a statistical basis to be representative of the country and acknowledged that economic constraints would make a regional sample the most realistic. "*Random sample would be the best, nevertheless due to the funding available mostly just regional sample.*"

One respondent suggested that there was a need for "*Two separate bodies*", an "*accident investigation board*" that "*investigates accidents with a learning potential…[and] with a public interest for example larger serious accidents*" and a body that investigates accidents for "*statistics/database collection*."

For the workshop questionnaire respondents the priority of investigation was fatal accidents (either all in country or sample) followed by a sample of injury, then according to a national programme closely followed by as determined by a European programme. It is acknowledged that in reality national and European programmes are likely to include fatal and/or injury accident investigation and so it cannot be asserted that, for example, the investigation of fatal accidents would be a greater priority than following a national programme. Again the aim of investigations affects whether or not sampling is used and which types of accidents should be focused upon.

5 4TH SESSION

5.1 Presentations

5.1.1 Yves Page: A point of view from industry.

Yves Page is Deputy Director of the Laboratory of Accidentology, Biomechanics and human behaviour studies PSA Peugeot Citroën-RENAULT (LAB) and responsible for accident research and primary safety. He is particularly in charge of in-depth accident investigations and analysis as well as the evaluation of the effectiveness of e-safety systems. In his presentation Yves Page explored the type of data stakeholders, and especially manufacturers, require and presented a number of ways in which the industry could work more closely with the other bodies that need, collect and analyse accident data.

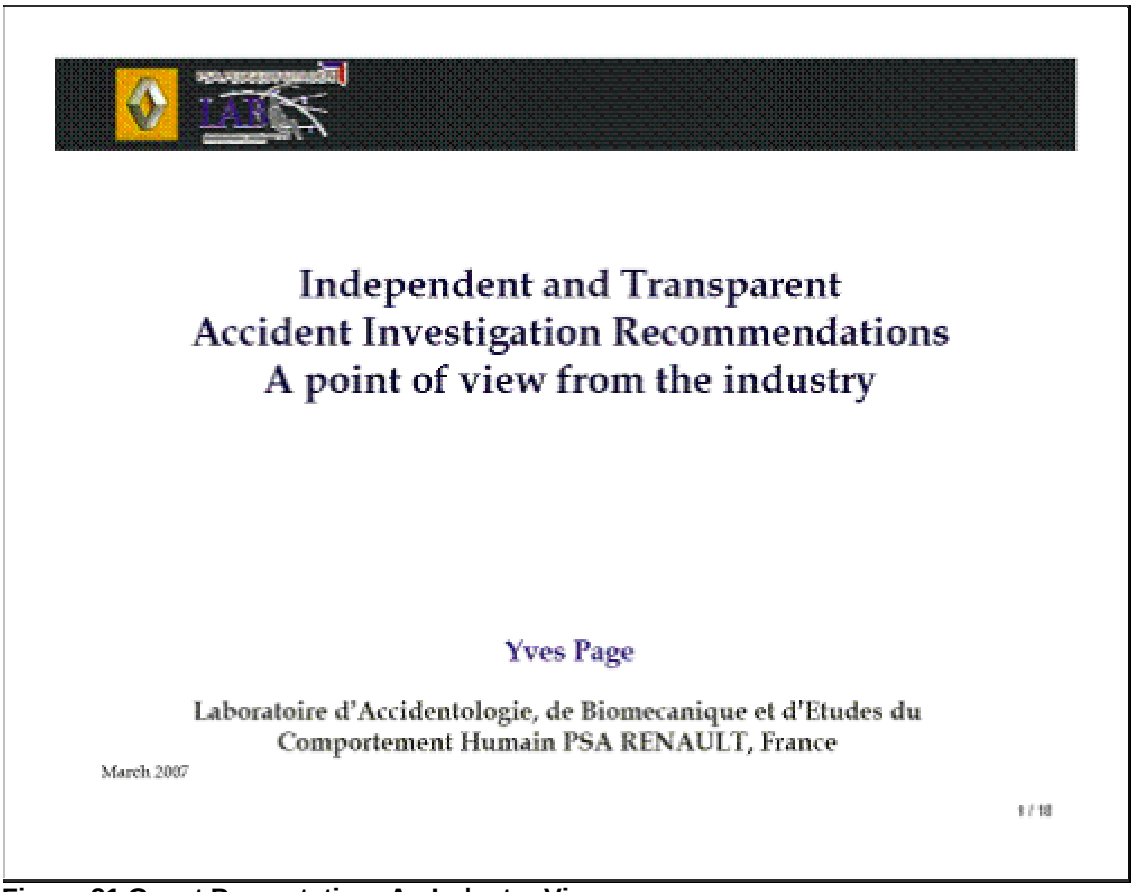


Figure 21 Guest Presentation: An Industry View

To summarise the current situation a map was shown of countries which currently have in-depth road accident investigation teams. These produce many databases with differing objectives, methods and property rights.

What are the needs for accident data and accident investigations? The diagnosis of road safety issues, and from this, the identification of safety actions and the evaluation of real world safety benefits of prevention strategies.

All bodies require accident data that are relevant, pertinent, accurate, understandable, representative and useable. Data also needs to be of high quality and address the good issues. Only technical in-depth crash investigations are considered here, police or forensic investigations—presenting much interest too—being beyond the scope of the presentation. This can be any kind of in-depth investigation including prospective and retrospective studies.

In-depth accident investigations are part of the information systems that provide information about accidents and their countermeasures. LAB uses accident data to identify accident mechanisms, injury mechanisms and evaluate the effectiveness of technologies.

Independence. Well, independent from what? Pure independence is fiction. Is it really necessary? Does it implicitly question honesty, competence, transparency? The money has to come from somewhere so can the results ever be truly independent? Can independent investigations cover all issues and all needs? Is independence compatible with respect to private life?

The manufacturers' objectives are to conceive automobiles, make automobile products and sell automobiles. The car industry invests money in crash investigations; to identify promising safety solutions; to prepare and comply with regulations and to help determine relevant car test procedures and ratings. Holding crash data is a competitive advantage. Partnership is also an advantage.

There is a need for a balance between *economics* and *citizenship* (a safe car becomes safe when it is sold and driven on the road)

Can we work together? We are already working together even though the objectives are different.

One principle—those who are investing in research should get the results. On the other hand, safety is like justice—for all.

In conclusion:

- Common investigations are already conducted e.g. CCIS, SafetyNet.
- Objectives are not necessarily similar for all—would a common body in charge of accident investigation be the unique efficient way?
- Crash investigations are costly and need optimisation to get European, National and Local insights into safety issues.
- Independence is not the critical issue now—inaccurate, missing data etc. is the main issue.

5.1.2 Gabriele Giustiniani: Data issues

Figure 22 WP4 Presentation: Data Recommendations

The presentation takes a road accident as an example and relates how the investigation data is currently gathered, transmitted and managed in Italy. Then these actual practices are compared to the Draft Recommendations. Currently the main aim of Italian road police investigation is to gather evidence of guilt and liability. This data can be accessed by the parties of the judicial process. The Draft Recommendations propose that the data that is gathered for safety purposes should be protected. It should not be used as evidence because this affects the data gathering process and would compromise transparency. Fundamentally, any use of the investigation data for purposes other than road safety work poses problems with the interpretation of the data.

Even though the accident investigation and the investigators should have a clear legal status, the necessity to appear in court might still occur. Should such a situation arise the legislation must be clear about the accident investigation data protection issues.

As for the data management, currently, in Italy, not all of the gathered data is stored in a database. The aim of the current system is simply to allow police to manage accident files. There is no direct contribution to road safety. The Draft Recommendations propose that all data should be entered in a database in a structured manner enabling future retrieval for safety research purposes. A specific data management system should be developed allowing for progress tracking.

Some of the accident investigation data gathered by the police is also transmitted to the Italian National Institute of Statistics, who produces official statistics and other information valuable to the community. The Draft Recommendations propose that a Database Manager should be appointed who would have the overall responsibility for the management of data, its accuracy and completeness and finally the analysis of the data. The collected data should also be stored securely according to the confidentiality requirements of the Member State. Finally the accident investigation data should be available for road safety research purposes, but it should not permit identification of the involved persons.

The second part of the presentation concerned the development of two databases in the SafetyNet Work Package 5. The first database is a fatal accident database with 1300 cases gathered in 7 different EU countries and the second is an accident causation database with about 1000 cases gathered in 6 different EU countries. The variables used are the same for all the project partners and to guarantee a constant quality a sample of database cases is periodically reviewed. Data are collected only for research purposes with the aim of determining the main contributing factors relating to each accident. The collected data are inserted in a database. Data are stored securely and are exchanged between the partners using a safe connection. No data containing information that would lead directly to the identification of persons involved in the accident are inserted.

5.2 Discussion Session 4

Jan Unarski, Institute of Forensic Research, Poland

Data is the key word for the day. In the next 5-10 years we will only have data on the people involved in the accident. Car manufacturers don't inform us about data from cars.

The possibility for accident reconstruction is very limited, the traces don't exist anymore.

Shalom Hakkert, Technion, Israel

In response to Yves Page's presentation: The Car industry is very important in the improvement since the 60-70s but the change in attitude was due to governments not the car manufacturers.

The initiative for car safety improvements in the US came not from the industry but from governments.

Martijn Vis, Chair

What about EuroNCAP initiative? This has increased the public awareness for car safety and has consequently led the car manufacturers to accelerate the development of car passive safety systems. So the EuroNCAP initiative has positively influenced the car manufacturers' view on safety.

Michael Weber, EVU, Germany

There is the problem of a "clean accident site" with no traces anywhere—it is difficult to reconstruct the accident. So there is a need to install an EDR (Event Data Recorder) system into cars to combat future lack of data traces. It will cost roughly 5€ per car. It is an interesting issue for this group.

Mr Geert van Waeg, Johanna.be & International Federation of Pedestrians (IFP), Belgium

A lot has changed since the 60-70s but little has changed on the pedestrian front. The legislation should work in this direction, the manufacturers would then follow and it will finally become something important for the consumers.

Yves Page, LAB, France

Doubts that there is only one perfect data protocol, needs to have independent and non-independent data.

J-G Koenig, director of BEA-TT, France

Emphasis is placed on large in-depth database on an EU level. This is a very specific job and not like the traditional work of accident investigation bodies. Rail/air doesn't really deal with data, mainly deals with causes and proposes proactive measures. For road accidents the emphasis is on databases—if the body is feeding road accident database according to stakeholders' needs, they won't have autonomy to select which accident to investigate.

Jean-Paul Repussard, European Commission

Talks about the important link between the public and the industry. In-depth[1] investigation database is the quickest way to reach a critical mass of data to help with reducing accident fatalities. This is the only way to provide the adequate level of data in the quickest time; no national study can provide this level of data on their own.

There are "no" national standards in Europe because all standards for vehicle safety are set either by the Commission or UNECE in Geneva.

[1] Please refer to the Definitions section for a discussion on the different uses of the term "in-depth".

5.3 Questionnaire: Recommendations on Data Issues

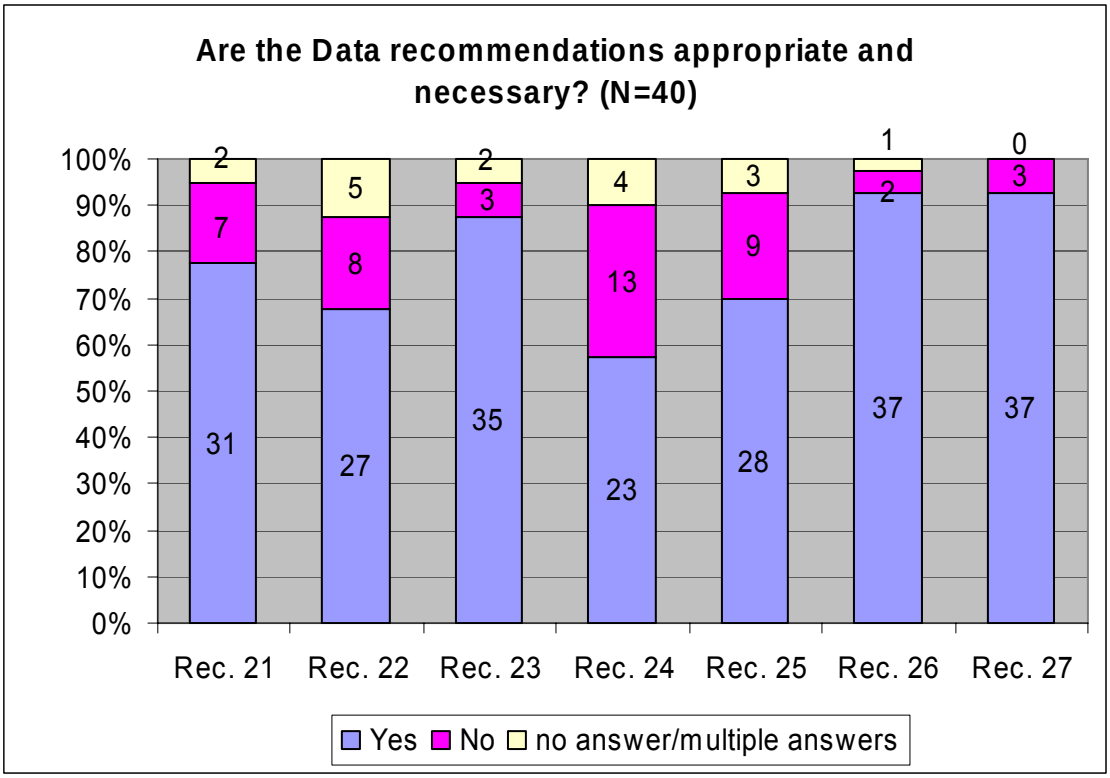


Figure 23 Questionnaire Results: Data Recommendations

Generally speaking, the data recommendations gained less support than the institutional and operations recommendations, with between 58% and 93% of respondents answering 'yes'. This section includes the least supported recommendation of all, Recommendation 24 ('Yes' = 58%).

The first two recommendations in the data section relate to who has access to data collected in independent road accident investigations.

21. Data that is collected about an accident by independent accident investigators should not be used to give evidence about fault or blame including in a court of law.

22. Data collected should be protected by law in each country so that the data never needs to be disclosed to anyone else, including the police or any other enforcing agency.

Many of the 'no' responses to recommendation 21 are due to the belief that it would be ideal but is not realistic. Some of the positive responses also noted that it may be difficult to achieve although one did comment "*It is possible to avoid being summoned to the court*". In summary the respondents are generally not against this recommendation but do not know how feasible it is.

Recommendation 22 received the support of 68% of respondents. Some of the negative comments related to it being *"impossible to change the legal system in*

this way". However others highlight the benefits of sharing information with, for example, industry. The part of the recommendation that therefore poses a problem is "…*data never needs to be disclosed*…". In order to have greater support from the stakeholders this may need to be reconsidered.

Neither recommendation makes a distinction between different types of data. One respondent stated that 22 should apply "*Certainly for personal and medical information*". Perhaps restrictions can be reduced for some types of data. Another consideration in relation to this, which was suggested by one respondent's comment for recommendation 21, is the "*availability of information. For example skid marks are 'public' so are the formulas to evaluate speeds based on skid marks. Interview info is NOT.*"

These remarks suggest that the data disclosure issues need to be considered in more detail, distinguishing between different types of data.

Three of the data recommendations refer directly to the storage and management of data in a database:

23. The Road Accident Investigation Body should collect and record all information relating to a specific accident in a database. This should be stored in a structured manner enabling future retrieval.

24. An integrated road accident investigation data management system should be developed. This should include a road accident database with a linked storage system for road user, witness and expert witness accounts and a tool for progress tracking and managing individual investigations.

25. A Database Manager should be appointed in each member state and be responsible for the management of data accuracy and completeness plus the analysis of the data.

Recommendation 23 received generally positive feedback with the majority of respondents agreeing with the principle. One respondent had concerns that entering all data in this way could limit the scope of investigations: "*but perhaps not all information in a structured manner so that some use of creativity will remain in studies.*"

In contrast, recommendation 24 received the least support from participants out of all the recommendations (58%). The main reservations for this recommendation seem to be about the privacy/confidentiality issues surrounding a data management system. This is especially true for witness accounts and their inclusion in such a system.

A respondent that agreed with recommendation 24 requested that the system should be "*not too complicated one*" which allows exposure data to be linked "*with accident data collected by teams*". It would appear that this recommendation is an ambitious one and to be accepted by more stakeholders it may need to be reduced in scope.

There was a rather mixed response for recommendation 25. The main objection was with the suggestion that 'a Database Manager should be appointed in each Member State' rather than the need for data management itself. Many would prefer the data management to be the direct responsibility of the investigative body rather than a single person "*Database should be operated by dedicated body*".

One response agrees with recommendation 25 but in the comment he goes on to say that the analysis should not exclusively be the work of the Database Manager, "*…the analysis is free for whom wants to use the data.*"

A theme common to all three recommendations was whether data from all accident investigations should be entered in a database. One comment suggested that it may not be possible for all accidents and should only concern "*a selection of accidents and a selection of information*".

Another respondent suggested that recording information in a database is only appropriate for certain types of investigations: "*For fatal/injury accidents. An investigation board should not provide general statistics/feed a database.*"

The comments for these recommendations highlight a number of issues that need considering. For example, is it necessary to enter all information in a database? How is good data management most appropriately achieved? Is it appropriate and/or necessary for an investigative body, operating similarly to other transport mode bodies, to feed and manage a database?

26. The data collected should be stored securely according to the confidentiality requirements of the Member State.

27. No data containing information that would lead directly to the identification of persons involved in the accident should be released to a third party. Information may be made available for research or analysis purposes but this should be restricted to a format which does not permit identification or attribution.

The final two data recommendations were widely accepted by the participants (both 93% yes). As one respondent said for both recommendations: "*This is essential for transparency, integrity and public acceptability.*"

The support for recommendation 26 may in some part explain the lack of support for 24. Requiring Member States to hold certain sensitive information, e.g. witness accounts, in a database may not conform to data privacy laws and therefore not considered achievable by some.

6 5TH SESSION

6.1 Presentations

6.1.1 Lars Bergfalk: Swedish Road Inspectorate

Lars Bergfalk is the Director of the Swedish Road Inspectorate. In his presentation he gave an overview of the Inspectorate and explored the proposal to form one Swedish Transport Inspectorate to cover all the transport modes.

1 (3)

VÄG TRAFIK INSPEKTIONEN

Datum
2007-03-13

Presentation at Workshop on Independent and Transparent Accident Investigation Recommendations, Brussels, March 27, 2007

Lars Bergfalk, Managing Director of the Swedish Road Traffic Inspectorate

Summary

The programme theory of Vision Zero defines that the system designers have a responsibility to take measures to prevent people from being killed or seriously injured in road traffic accidents. The Swedish Road Traffic Inspectorate has been given the role of following the development and working to ensure that the system designers apply a systematic procedure in their work. Given the limited tools for the mandate of the Inspectorate and the lack of legislation supporting the programme theory of Vision Zero, the development has been positive so far.

However, in order to decrease the death toll in road traffic, the supervision methods must develop and be based on a clear legislation. A committee of inquiry proposed recently to government to establish a joint Traffic Inspectorate with a mandate covering all transport modes. Special attention were given to the safety legislation concerning road traffic and to the investigation of road traffic

Figure 24 Guest Presentation: Swedish Road Inspectorate

In 1997, the Swedish Parliament adopted Vision Zero. The programme theory of Vision Zero declares that the system designers have a responsibility to take measures to prevent people from being killed or seriously injured in road traffic accidents. The Swedish Road Traffic Inspectorate was established in 2002. The idea was to create an independent body with the task to follow how the system designers and service providers in the road traffic sector had incorporated the theory behind the Vision Zero and how they developed their safety work.

The Road Traffic Inspectorate has dialogue as its only tool for influencing the system designers to apply a systematic procedure in order to prevent severe accidents. No legislation exists to support that work of the inspectorate.

Concerning accident investigation in Europe, it is an overkill to collect information on all fatal accidents (40,000 would be a huge challenge). However,

some investigations involving serious injuries should be conducted in order to develop safety systems of the future. Someone has to question the standards of the investigations (an independent body). In Sweden, the inspectorate should serve to ensure that the data is used in an appropriate manner.

There has been a proposal to form a Transport Inspectorate by merging the Civil Aviation Authority, the Rail Agency, the Maritime Safety Inspectorate and the Road Traffic Inspectorate. An inspectorate covering the whole transportation sector would strengthen the development of the safety work, especially in the road traffic sector. The new Inspectorate should be given mandates for road design and maintenance.

One important task for the new inspectorate will be to push forward the development of a common safety culture in the whole transportation sector. In civil aviation, safety is a prerequisite for the use of the system. Quoting my former colleague in the Swedish CAA: "*Everyone knows that flying is dangerous, that's why it is so safe!*". In the road traffic sector safety is too often regarded only as a restriction on capacity and travelling time. It can be said that "*everyone knows driving is safe, that's why it is so dangerous!*"

The results from accident investigations are among the most important sources of knowledge for safety improvements. Of great importance is thus a systematic and transparent method for accident investigations. The proposals for such a common approach will be important steps forward. And since transportation safety is an international problem, a common European approach is important. I strongly support the proposals presented here today, hoping that this will be a beginning of a systematic work to improve road traffic safety on a common European level.

6.1.2 Helen Fagerlind: Reports, Countermeasures and the Dissemination of Data

Figure 25 WP4 Presentation: Reports, Countermeasures and Dissemination

The Draft Recommendations propose that accident investigation results, namely accident reports, should be public. The reports should take two forms; individual accident reports and reports based on aggregated data. An individual report should include information on investigation procedures, what information the conclusions are based upon and it should identify the accident and injury causes. It could also include safety recommendations to prevent reoccurrence.

However, if an individual accident investigation report is understood as being always a thick, written report containing all the facts, analysis, conclusions and finally safety recommendations, it may not always be the appropriate form for a report on a road accident. This recommendation was influenced by the directives on accident investigations in other transport modes which state also that the final report should be made in the shortest possible time and normally no later than 12 month after the date of accident. Is this applicable for road traffic accidents? We also have to bear in mind that a single road accident investigation seldom generates recommendations and countermeasures. Hypothesis can be formulated on the basis of individual reports but they need to be confirmed by other sources and larger data sets to prove their relevance. We also need to consider the difficulty to maintain the confidentiality for the involved parties if individual reports are published, especially in smaller countries.

On the other hand, if an accident report can be a summary page extracted from a database where the facts and analysis from an investigation is stored, then this particular WP4 recommendation can be more easily applicable to road transport.

Even if the publication of individual reports like in other transport modes was not recommended by WP4, information on individual accident investigation would still exist and, indeed, exists already. The following information should be stored in a road accident investigation database: objective facts on the persons and the vehicles involved; information on the road environment; an analysis identifying causes to the accident and the injuries. It is known that the human, the vehicle and the road are interacting in road traffic and it is seldom one single factor that is the cause of an accident or of its consequences in terms of injuries.

The safety recommendations should be developed independently from stakeholders even if a good dialog with these might be necessary for determining what can be achieved in both a short and long term basis. When the safety recommendations have been passed on to relevant stakeholders they should have legal obligation to respond to the recommendations and justify their planned actions within a time frame. The National investigation authority should keep a record of recommendations, the responses from the stakeholders and the progress in implementation of the countermeasures.

The annual report should be publicly available within a set time frame outlining the results of the investigations. The annual report should mention the number of investigations performed over the elapsed year, indicate the cost of investigations and the overall budget of the body, analyse long term tendencies, summarise the formulated safety recommendations and analyse adapted countermeasures or changes to the legislation etc.

The aggregated data should be publicly available. The aggregated investigation data can be a good supplement to general National and European road accident statistics where some important information often is missing. Some European harmonisation, in terms of common accident files for instance would be highly beneficial for the European road safety community.

Findings and conclusions from national investigations should be discussed at European level to assess their applicability in other Member States.

6.2 Discussion session 5

Jesus Monclus, ROSAT, CDTI, Spain

In-depth investigation of a representative sample of crashes, as normally understood, is very different from special or major crash investigations. Therefore there is a need to consider separately special cases such as Mont Blanc tunnel crash. ROSAT recommended in-depth investigation in this type of major or special cases. Most road traffic accidents are quite different from special / major road accident cases or major accidents in other transport modes.

SafetyNet has a more general emphasis but it should not neglect this difference. It is important not to forget special cases and at the same time, samples of statistical cases are equally important: we should not investigate just one specific type.

Lars Göran Löwenadler, ROSAT, Volvo Truck Corporation, Sweden

There are 5-10 special case accidents per year in Sweden that really need a detailed report. There is no statistical use in these. For statistical purposes Sweden investigates 400 or more other cases, which do not necessarily have the same need for independence.

Heikki Jähi, SafetyNet WP4 co-leader, INRETS

Investigating 100-1000s of accidents per year would completely change the work of existing accident investigation boards such as the French BEA-TT. But we're not saying all should be changed. Major accidents need an in-depth[1] investigation. There is a difference between those and everyday accidents, there is something between the basic police level and the major accidents and these accidents need to be investigated too.

We are not saying that things should change radically but that what is already done should be somewhat enhanced. We are making the distinction between routine accidents which are investigated by the Police and then major accidents of special interest.

Jean-Paul Repussard, European Commission

SafetyNet is made up of theory, manuals and results. The subject of today's meeting is the manual, we want discussion and criticism and we know our weaknesses—CARE is on good tracks but details on RED and SPI have lots of gaps. In-depth[1] analysis should be done on a wide basis—and the sample must be significant. At present this is done in a few countries only and it should be done in more countries. There are also few links with other projects.

[1] Please refer to the Definitions section for a discussion on the different uses of the term "in-depth".

6.3 Questionnaire: Recommendations on Reports, Countermeasures and the Dissemination of Data

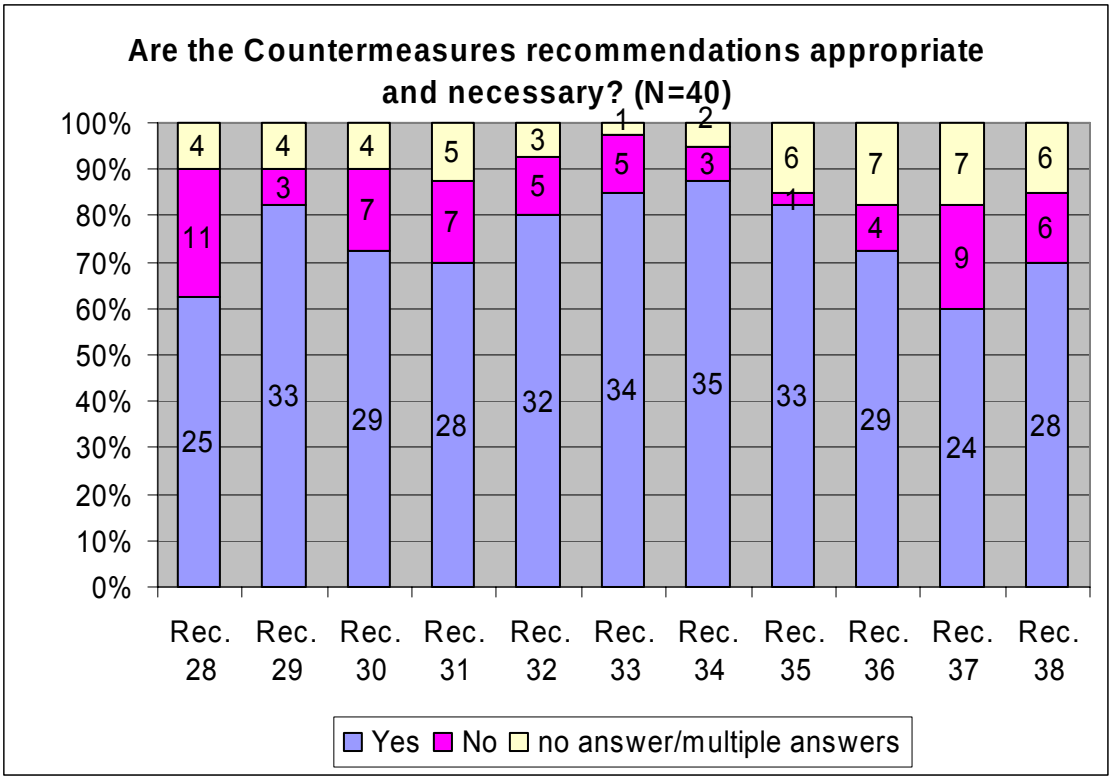


Figure 26 Questionnaire Results: Reports, Countermeasures and Dissemination Recommendations

Although not including the least supported recommendation, the countermeasures recommendations as a whole are the least supported set. Between 60% and 88% of respondents answered 'yes'. This set of recommendations also provoked no answer or multiple answers more often than any other section.

The first 2 recommendations refer to the type of report which should be produced. The Draft Recommendations focus on individual accident reports and say very little about when aggregate data reports should be used. This is reflected in the respondents' remarks.

28. Data should be reported in two main ways within each Members State, by individual accident and by aggregate data from multiple accidents.

29. Reports should be written in the form most appropriate to the investigation however, the general structure of these reports should be decided upon at Community level and documented publicly. As a minimum individual accident reports should:

a) Briefly state how the investigation was undertaken and what evidence, including witness reports, the conclusions were based upon.

b) Set out the identified cause(s) of the accident and other factors which may have increased the severity of the accident.

c) Make recommendations designed to prevent reoccurrence

The low level of support (63%) for recommendation 28 seems to come from its vagueness, it does not say in what circumstances each type of report should be used. For example which type(s) of accident should the individual reports apply? It is nicely summarised by the comments of one respondent: "*it depends on the depth of investigation. Sample of crashes—aggregated. Special cases (extremely serious)—individual case reports.*"

Although gaining 83% support, recommendation 29 generated a mixed response. Many of the positive replies were followed with a "but". The main reservation seems to be about what kind of accident the reports apply to *"40'000 individual accident reports per year? It is impractical and hugely expensive."*

Respondents were also unhappy about the suggestion that the structure of reports should be "*decided upon at Community level*" preferring to see "*at this stage, [contents] of reports… [being] recommended not required*".

Remarks for both recommendations raised concerns about data protection issues with regards to individual accident reports. Some respondents say "*no information on an individual accident should be published*" because this "*would increase the risk of identifying data*".

An additional question was also asked in the workshop questionnaire in order to find out the level of support for different types of report:

What type of reports should be produced?

Full written report for each investigation ☐

Summary report on a number of investigations ☐

Key data only ☐

Other (please, specify) _____

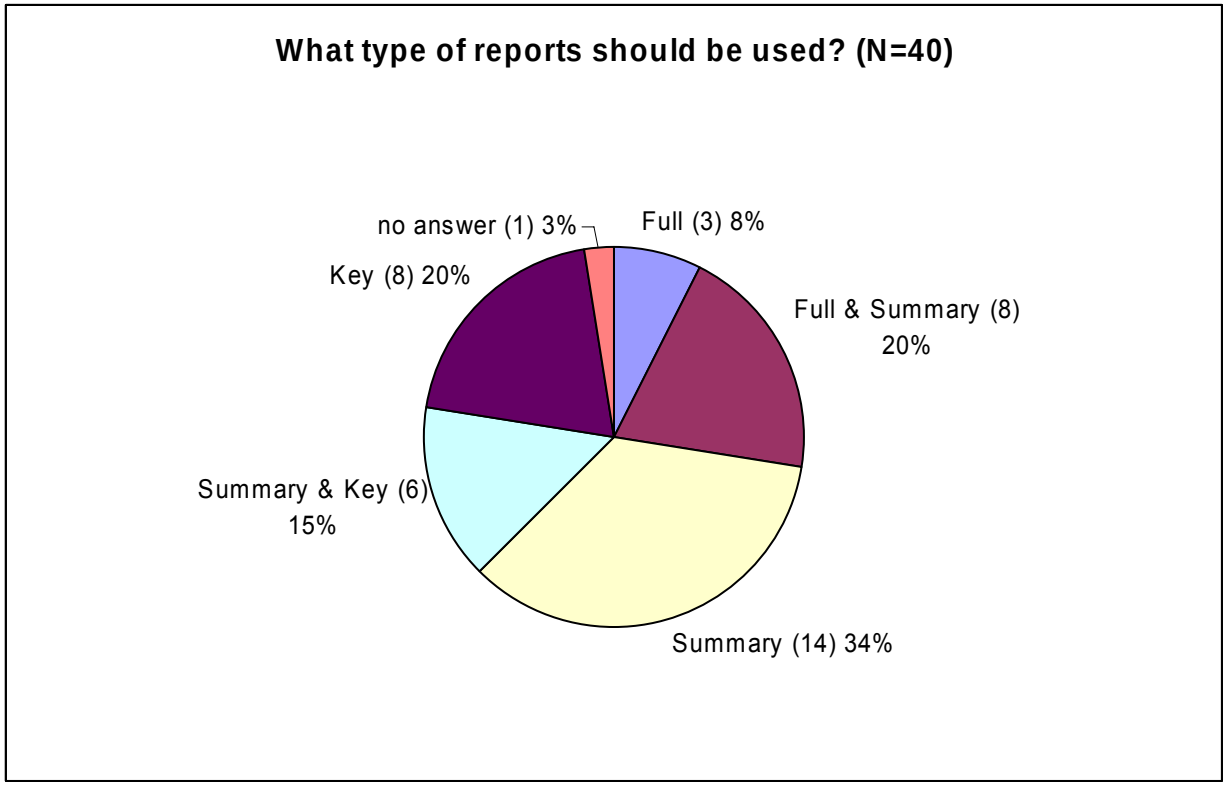


Figure 27 Questionnaire Results: Type of Reports

Respondents selected either 1 or 2 different types of report with no one suggesting the combination "full report" and "key data". No category gained an overall majority however "summary data" gained the largest share. "Summary data" also featured in three categories making it the most popular type of report. "Full reports" on its own gained the least support with just 3 people selecting it and only a further 8 selecting it in combination with "summary data".

A reason given for the need for summary reports was: "*It is necessary to draw conclusions from a series of similar accidents. E.g. pedestrian accidents.*"

Reports on individual cases were thought to be "*not that important*" by one respondent who emphasised the need for a database and data being available for research. This view was supported by a number of remarks.

Those who selected "full and summary" reports distinguished between the different types/aims of road accident investigation: "*[full report]: Regarding 'severe' accidents investigated by an agency. [summary]: Day to day accidents investigated in-depth due to circumstances like people killed*"

Individual accident reports for all investigations appears to be too ambitious but as yet the recommendations do not address when and for which accidents individual reports or aggregate data reports are the most appropriate.

30. Recommendations should be developed independently from the stakeholders however the Road Accident Investigation Body should,

where necessary draw on external expertise to ensure that any recommendations are useable, realistic and likely to be adopted.

The "no" responses to this recommendation mainly come from respondents disagreeing with the development of recommendations independently from stakeholders. Several comments say that without the stakeholders' views the recommendations would lack an essential perspective: "*Stakeholders must approve of all recommendations otherwise they will do nothing.*"

However, as Mr Hakkert, among others, reminded earlier in the day, sometimes important safety enhancing changes, which stakeholders did not originally approve of, have been imposed by the authorities.

The second part of the recommendation should be more explicit about when and how stakeholders should be consulted. This raises issues about both the independence and transparency of road accident investigation results. These issues require careful consideration.

31. National recommendations should be discussed at a European Level to assess their Europe wide applicability.

The rather low proportion of 'yes' responses to this recommendation (70%) appears to stem from a fear that it would become "*too bureaucratic*" if all national recommendations are discussed at EU level. The recommendation is seen as being "*not necessary but appropriate*" and not all national recommendations should be discussed. As one positive response pointed out *"local/regional conditions… can make a valid recommendation for one country counter-productive in another country".*

32. The reports on investigations, their conclusions and recommendations should be made publicly available within an appropriate time scale at both National and Community level.

The main reservations about this recommendation seem to be for what kind of accident the reports should be made publicly available. Comments say that *"…no public information on individual accidents [should be made available]"* and *"Only on an aggregate level. Otherwise persons can be identified"*.

The sharing of information is important but, as highlighted by one comment, "*anonymity has to be guaranteed*".

There were also some questions on the appropriate time-scale: "…*it all depends on the magnitude of the accident and the available resources of the national body*."

By being more precise about what type of accident the report will be made public there would be greater support for this recommendation. As one respondent commented: "*Dissemination and exchange of information [is] important for ensuring the evidence feeds into road safety but this [recommendation] needs more consideration*"

33. Each year the Road Accident Investigation Body should publish an annual report concerning the group's activities over the elapsed year. These reports should be made publicly available and contain results of studies, information on recommendations and details of current and planned national legislation changes.

There is general support for this recommendation (85%). The main reservations were that "*national legislation is not in the field of an investigation body*" and whether reports should be publicly available or reserved for the Ministry of Transport. If the body has no responsibility for national legislation then it cannot detail any current or planned national legislation changes.

It was asserted that: "*Depending on the structure of the body and its independence it can be important to be transparent in order to gain confidence and trust.*"

In light of the support for transparent investigations (see section 2.3), this recommendation appears important in establishing the credibility of investigations.

34. Basic accident data should be analysed and published annually in the Member States' statistical output about accident rates.

There was a high level of support for this recommendation with the suggestion that "*in-depth data should be combined with exposure data*" and that the publication of basic accident data is "*useful for policy makers and stakeholders*". In addition, as one comment pointed out, "*The database manager is supposed to analyse it anyway if [recommendation] 25 is accepted*."

35. The accident files (from national databases) should be compiled within a European database for analysis at a European level.

There was only 1 negative response to this recommendation, but several with 'no answer'. The main reservations were about the differences in data collection and whether this allows data consistency—"*under conditions that enable compatibility and quality control*". One comment suggested that not all data in each national database needs to be included within a European database. Another suggested that it depends on the type of investigation: "*Yes for a European OTS type investigations. No for an ad hoc special type of investigations, since they may have not homogeneous methodologies*"

36. The results from independent road accident investigations should be disseminated within the European Community following the drawing up of findings and conclusions. European level data, resulting from the compilation and analysis of data from individual member states, should be disseminated across all the Member States.

Most respondents agree that it is important to disseminate results across Europe, although there are reservations about the cost and time of translating reports and results. Finally there is the reoccurring worry about how different

data security laws across Europe make it difficult to apply such a recommendation.

37. Recommendations developed from investigations should be passed to the relevant stakeholder(s) for implementation. The stakeholder(s) should have a legal obligation to respond to the recommendations and justify their planned actions within this timescale. The response should include how any resulting countermeasures will be implemented, monitored and maintained.

38. The Road Accident Investigation Body should play a coordination role by maintaining a current record of:

a) **the recommendations of Road Accident Investigation Body accident investigations;**

b) **the responses of all the organisations to which the respective recommendations are directed; and**

c) **the state of progress towards implementation in relation to stated timescales.**

The very low support for recommendation 37 (60%) seems to stem from the term 'legal obligation' because, as one respondent pointed out, it will "…*mean that the statistical body will have a lot of power".* Another comment points out that difficulties may arise due to existing national laws. Some respondents believed the recommendation to be in theory necessary but in practice unachievable: "*In theory yes! In practice it won't be reachable I guess.*"

Reasons for not being achievable were stakeholder resources and the expense of creating new laws.

One respondent suggested that this recommendation is only "*valid for those accidents investigated by an 'agency'.*"

There are similar reservations about recommendation 38 to those which were expressed for 37 although 38 was regarded by one respondent as a "fundamental issue". The final two recommendations give "*further mandate[s] to the investigation body*" that are "*more sensitive and problematic*" in the view of another respondent. A further comment says that "*This body can manage the knowledge but the coordination role? Would the body still be independent (as required before)."*

Further reflection is needed about the last 2 recommendation and the extra responsibilities the investigation body would have. They are perhaps more controversial because these recommendations present structures that do not already exist in most Member State countries.

7 ANALYSIS OF RESULTS

7.1 Institutional

The institutional recommendations relate to the organisation(s) and people conducting road accident investigations. In the Draft Recommendations (SafetyNet 2006b), it was suggested that a dedicated body should be responsible for investigations and that 'independence' should be its key characteristic. There are parallels between this body and the bodies for other transport modes (air, maritime, rail) that are already in existence in Europe.

The findings of the preliminary consultation were that it would be feasible to establish an independent body for road accident investigation, however the response to the idea of a dedicated body from the workshop attendees was more mixed with objections being raised about the necessity of such a body and to the level of independence in terms of structure, finance and function that was recommended. It was suggested that the input of stakeholders such as manufacturers might be needed in investigations; that it is important for the body to have autonomy over how to spend a budget but not imperative that the funding itself is entirely independent and that stakeholders, especially governments, should be allowed a say about which accidents should be focused upon. The latter was stated a number of times and also was raised in the first discussion session where it was suggested that by allowing a government to ask for specific issues to be examined, the body could serve general policy requirements as well as data needs.

In contrast with this, some disagreed with recommendation 7 allowing investigation teams to have access to external expertise, as this may compromise the body's independence. On the one hand it was thought important that the input of stakeholders is considered and on the other that the body should have the autonomy to organise its activities independently of stakeholders. The need for independence and the need to cooperate with different stakeholders is finely balanced.

The way in which an investigative body is organised affects how it operates, the data it collects and how investigation results are reported, disseminated and used to develop countermeasures. Therefore the feedback received at the workshop about the institutional issues has a bearing on the recommendations as a whole. The main questions raised were:

1. Are the investigative bodies for other transport modes an appropriate model for a road accident investigation board?

2. How would such a body fit into the existing structures and investigative organisations already in existence in different Member State countries?

3. What is the appropriate level of transparency and independence for road accident investigations and does this differ according to the type of investigation?

4. Is one type of investigative activity appropriate for all types of accidents?

These questions will be considered in more detail in the conclusion.

7.2 Operational

The Operational Recommendations deal with how investigations are initiated and carried out, their aims and legal rights. The Draft Recommendations suggest a preference for the use of on-scene methodologies, however the advantages and disadvantages of both on-scene and retrospective methodologies were presented at the workshop.

It appears that a mixture of on-scene and retrospective methods rather than a single method was preferred. The method chosen would depend upon a number of variables including the type of accident to be investigated, the investigation area and the available resources. The aim of an investigation and the type of accident to be investigated may be more important than the particular method used.

It was also suggested that the immediate notification of accidents to the investigation team may not always be necessary. However if the same body was conducting investigations on-scene in some cases but retrospective in others there would still be a need for a system of immediate notification. If it is the investigation body who decides which accidents to investigate and how they should be investigated then it requires information about an accident and injury severity within a short space of time. If notification is immediate in some cases and later in others, there would be a need for a more complex system and the decision about when information is passed to the investigation teams would be made by someone external to the investigative organisation. The notification should be immediate, allowing the investigators to determine the appropriate response. This response can be a decision not to investigate, a decision to investigate on-scene or a decision to investigate retrospectively.

One of the main issues that were raised about the operational recommendations was the relationship between police investigations and primarily safety oriented investigations. The Draft Recommendations make a clear distinction between purely safety oriented investigations aiming to collect data to develop countermeasures and investigations carried out as part of a judicial enquiry with a primary aim of establishing fault. A ‘truly’ independent investigation remains entirely separate from the judicial and therefore police investigation. However in practice there are a number of problems with this.

There were three points of view about the relationship between independent safety oriented investigations and judiciary enquiry: that they should be completely separate; use some judicial information but retain autonomy in what to do with it and that all information should be used for judicial purposes. The first is nearest to the Draft Recommendations and the latter is completely contradictory to the level of independence recommended. However the second view highlights a problem of an independent safety oriented investigation with complete separation from the police investigation. Data collected by the police

is used in most existing European road accident investigation activities. VALT investigations, although operating in a way which is closest to the independence recommended in the draft, have a permanent police member as part of the team. In retrospective studies, police data provides a way of accessing 'on-scene' volatile data that would otherwise not be available. As long as the investigative body has the autonomy to use the data in the way in which they feel is appropriate, it may be possible to use some police data without compromising independence. The use of police data requires further consideration.

Another problem associated with independent investigations is that there is still a need for the police to conduct some kind of judiciary enquiry for the majority of accidents. Concerns about the impact of two teams operating at the scene of an accident were expressed both in the questionnaire remarks and discussion session 3. Mr van Waeg suggested that there would be too many people at the scene of an accident if both police and independent investigators attended and this would be distressing to those involved and witnesses, especially if they were required to answer questions twice.

A solution to this that was suggested in the questionnaire remarks, was to use police witness statements as a source of data. However there are more questions surrounding the use of interview and other personal data than factual evidence. Road users or witnesses are less likely to be accurate in their statements if they believe that their words could be used against them in a court of law. Reliance on police witness statements is likely to affect the quality of the data collected. It is possible that the recommendations relating to questioning witnesses would be more appropriate if they avoid the formal term 'interview'. As one post-it note asserted: "*Interviewing does not take place at investigation scene. Some 'talks' happen there. Later people are interviewed. Bothering people with interviews is not the case. It is good for people to talk.*"

In any case, consideration needs to be given to whether it is always necessary for two teams to be present at the accident site and to the procedures that are needed to enable cooperation with those conducting the judiciary investigations.

An issue that was raised in both discussion session 4 and the general questionnaire remarks was access to information stored in in-vehicle Event Data Recorders (EDR). Michael Weber and Jan Unarski noted that accident scenes are becoming 'cleaner' with fewer traces being left on the road. This hampers efforts to reconstruct accidents and is an issue for both judiciary and purely safety oriented investigations. One of the obstacles to the use of data such as is recorded by EDRs, is that only the manufacturer has access to this data and as Jan Unarski pointed out, they do not inform investigators (in this case judiciary) about this data. Both called for SafetyNet to consider recommending that EDRs should be installed in all vehicles and that data should be made available. To recommend the installation of EDRs would be beyond the scope of the SafetyNet recommendations however the issue of access could be considered. Manufactures may be willing to provide data to safety oriented investigations if it was not used to find fault. This would require transparent agreements to be put in place that allow the investigative body to

access and protect this information without compromising the investigative body's independence.

There is a second obstacle to accessing EDR data. This is the data privacy laws of individual Member States. In some countries, for example Sweden, data stored in EDRs are the property of the vehicle owner and so cannot be accessed or stored without their permission. This makes the process of accessing data more complex as agreements have to be made between the investigative body, the manufacturer and the vehicle owner. This issue requires further examination to assess whether access to EDR data should be recommended.

Recommendations 15, 16 and 17 refer to the production of an investigation manual. One of the original ideas behind these recommendations was that each Member State should produce a manual detailing their own independent road accident investigation practices for reasons of transparency and so that comparisons can be made between countries. However the more salient meaning is that a European manual should be produced so that national bodies can cooperate and gather data according to some common requirements, therefore a common methodology. It appears from comments made at the workshop that the latter interpretation was generally made. Respondents suggested that national differences would need to be taken into account in a European manual and that this would be achieved by distinguishing between 'basic level' and 'additional' data. In this case these levels of data would require defining. There is probably a need for data collection methods to be set out on a national level but data requirement to be set out on a European level if European harmonisation of data is aimed for. These issues require further examination.

During the workshop the question of what types of accidents should be investigated was revisited. Other transport modes have an obligation to investigate accidents of a certain severity and the autonomy to investigate others. However the numbers involved makes this difficult for road transport. The preliminary consultation revealed many different opinions about which accidents should be investigated but little consensus. The workshop questionnaire results suggested that investigating fatal accidents is a priority but that this would be complimented with a sample of accidents of other severities. Opinion was divided between whether all or a sample of fatal accidents should be investigated. Countries such as Finland already investigate all fatal accidents whereas other countries such as Italy have too many fatal accidents to make this economically viable.

That an organisation responsible for investigating road traffic accident must investigate a representative sample of accidents rather than all accidents is clear however what this sample 'represents' is less so and will probably require determining on a country by country basis. It is possible that some recommendations or general guidelines could be developed to assist Member States in deciding which accidents to investigate in their countries. These issues also require further examination.

7.3 Data

The data recommendations addressed the data storage needs including the legal issues of data privacy and protection from use in the judiciary system. In summary, the recommendations propose that all data collected about an accident, including witness accounts, should be stored in a database system. This data should not be used in a court of law and should be protected so that it never needs to be disclosed to anyone else. Data could be used for research purposes but can only be passed to a third party in an anonymous form.

As seen in section 7.2, there was a range of opinion expressed by the workshop attendees about the relationship between judiciary and safety oriented independent investigations. Questions were raised about how realistic it would be to keep all data from being used in court. It was thought by some that sharing information with for example the industry would be beneficial to safety improvements. The applicable question may be whether data is used for safety or 'blame' purposes. This in itself is not without problems. For example in the UK road accident fatalities are considered to be sudden deaths and it is up to the coroners court to decide whether this death is 'accidental' or not. If information was passed to this court it is clearly for judiciary purposes. However such courts also serve a more humanitarian purpose by allowing victims' families to find out what actually happened in a crash allowing closure—some courts work closely with support charities such as RoadPeace, in order to achieve this. Fears were expressed at the workshop that if fatal accidents fall under the same rules as the other modes then coroners courts would not have access to enough detail to enable this.

For other transport modes, data collected by the independent board cannot be used in a court of law. As described in the ROSAT presentation (see section 2.1.3) the UK has a 'Memorandum of Understanding' (MoU) between the Crown Prosecution Service (CPS) and the Air, Maritime and Rail Investigation Branches. This states the conditions under which information can be shared between the CPS and the Branches, namely "*All evidence and information, except where there are specific legal bars, can be disclosed between the accident investigation boards and the Crown Prosecution Service*" (ROSAT, 2006:27). Further examination of the MoU and its application in practice is required to assess the appropriateness of the data recommendations.

Workshop attendees suggested that it may depend upon the type of data to whether or not it is appropriate to share information with other agencies. For example, skid marks appear on the road for all to see and therefore could be regarded as public whereas witness accounts are not. There was also data privacy concerns expressed about storing all information in a database. Requiring Member States to hold certain sensitive information, e.g. witness accounts, in a database may not conform to data privacy laws and perhaps is not necessary. This becomes an important issue if data records are centralised and can be viewed by other countries. The Draft Recommendations do not distinguish between different types of data. The workshop feedback suggests that the data disclosure issues need to be considered in more detail, distinguishing between different types of data, for example factual and personal.

There is a trade off between allowing data to be shared so that it can be used for safety purposes and the protection of the individuals involved.

7.4 Reports, Countermeasures and the Dissemination of Data

Issues surrounding the reporting and dissemination of investigation findings and the development of safety recommendations and countermeasures was dealt with in the fourth section of the recommendations.

This set of recommendations as a whole received less support than the other three sets. The first issue raised was the appropriate way of reporting accidents. The Draft Recommendations suggest that reporting should be both by individual report and by aggregate data. Individual reports for all accidents investigated was viewed as unrealistic by many attendees due to the numbers involved and unnecessary due the limited likelihood of one accident resulting in wide reaching countermeasures. The Draft Recommendations also do not adequately address how multiple cases should be reported using aggregate data.

One of the main issues raised by workshop attendees was the involvement of stakeholders in the development and implementation of safety recommendations. A number of comments indicated that incorporating stakeholder views on safety recommendations would be essential in achieving the implementation of recommendations—one attendee went as far as to say that the stakeholders must approve of recommendations. However this raises questions for both the independence and transparency of the results from road accident investigations. A stakeholder may object to a recommendation on the grounds of cost but the recommendation may significantly affect safety. During the discussion it was reminded that in the 1960s the US car manufacturers were opposed to seat belts, which were finally imposed by the authorities. It is now well know that the introduction of seatbelts significantly reduces road casualties. The investigative body should have the autonomy to recommend unpopular measures.

Stakeholders should not be able to block important safety recommendations but at the same time some form of consultation may be needed in order to devise good safety recommendations and countermeasures. New legislation may be needed to achieve this. However it was also suggested that the Draft Recommendations give the investigative body too much power especially with regards to recommendation 38 which suggests that the body should act as a coordinator by maintaining a record of the responses of stakeholders to recommendations. Perhaps these activities would be better suited to a regulatory body rather than an independent investigative organisation.

What was clear from the workshop feedback was that there is a requirement for a system that allows results from road accident investigations to feed into the development of accident countermeasures. For example one questionnaire respondent pointed out that "*Data does not automatically lead to safety improvements*" and another that "*Researchers have shown great weakness in in-depth data"*.

The structures in terms of the development of countermeasures as proposed in the Draft Recommendations are perhaps more controversial as they currently do not exist in most Member State countries. Nevertheless, this section of the Draft Recommendations appears to require the most examination and redrafting.

8 CONCLUSION

As noted in the institutional section of Chapter 7 *Analysis of Results* many issues were raised at the workshop that apply to the Draft Recommendations as a whole.

As stated previously, the body described in the Draft Recommendations is based upon those for the other transport modes. However workshop attendees questioned this comparison during the first discussion session. Rob Gifford suggested that the nature of road transport is different to those in other transport modes: "*Comparison between road and other transport modes is difficult because the other transport modes are public transport rather than private use of public space*".

Also the numbers of accidents vary hugely, as Jesus Monclus reminded: "*[There are] as many road deaths in one day compared to one year in other transport modes.*"

J-G Koenig, Director of BEA-TT, points out that "*producing a database is a very specific job and not like the traditional work of accident investigation bodies. Rail/air doesn't really deal with data, mainly deals with causes and proposes proactive measures.*"

As road transport is different in nature (for a more thorough exploration see SafetyNet, 2006a) and road accidents greatly outnumber the accidents in other transport modes, one questionnaire respondent suggests that "*you can find other solutions [rather than a road accident board] (as example GIDAS work in a very small area)*"

One post-it comment raises further concerns about the body described in the Draft Recommendations: "*One main preoccupation concerns feasibility of such a Body. Countries have important differences when it comes to in-depth investigation as there are countries that do not have such systems at all*!"

In addition, Andreas Schepers, BASt, asked important questions in the second discussion session: "*What is the aim of the independent investigation and the aim of the body that would be set up? How does this accident investigation body fit into existing structures?*"

How the Draft Recommendations relate and apply to Member States' existing structures and activities has not been addressed. Attendees suggested that not every country requires a new investigative body and that the principles guiding road accident investigation could be more important than the structures. Whether or not each Member State requires a new body needs to be determined on a case by case basis.

The principles guiding the Draft Recommendations were that road accidents should be examined through transparent and independent safety oriented investigations. Most of the institutional recommendations relating to an investigative body emphasise the need for independence. As was revealed in

Analysis of Results the level of independence advocated by the Draft Recommendations has been questioned a number of times—although we should not forget the 65% support the 1st Recommendation received. The workshop questionnaire responses show that transparency was considered more important than independence by half of respondents with a further 30% believing that transparency and independence are equally important. Some respondents suggested that the importance of transparency and independence differed according to the type of accident. This opinion was expressed by Lars Göran Löwenadler in the first discussion session: "*There are different levels of accident investigations—severe accident investigations need to really be independent but everyday accidents are different and independence isn't as strictly needed."*

And in the general questionnaire comments: "*The enquiry does not really reflect the need of keeping apart 'regular accidents' and 'severe accidents'. The need of transparency is the same but the need of independency is of different kinds*"

This gives an indication about how the recommendations could be made more appropriate. Generally the workshop attendees' critical comments expressed the view that a 'one size fits all' approach is not appropriate for the investigation of road traffic accidents. There are many more different investigation practices in existence and different types of investigations address different categories of accidents. The most severe or 'major' road accidents are the most common type of accident that are investigated by a dedicated board in EU Member States. At the other end of the scale there are minor injury accidents that in some countries are routinely investigated by the police. In addition there are many accidents that are investigated by a study, project or some sort of road accident investigation scheme based on sampling criteria. For example VALT investigate all fatal accidents in Finland and GIDAS investigate all injury accidents occurring in a specific region during their periods of operation.

Another general questionnaire comment suggested that: "*The SafetyNet recommendations should distinguish 1) investigation boards (similar to air and rail) that investigate major/special accidents from 2) in-depth routine investigation that also provides input to databases/statistics*".

This is supported by the feedback received in response to all four sets of issues in the Draft Recommendations. Comments suggest that some recommendations apply more particularly to certain types of accidents and that it may be necessary to distinguish between major and more routine accident investigations that provide information for databases.

Some of the Institutional Recommendations may apply more to major accident investigation. For example Recommendation 8, about the establishment of an appropriate investigation team for each accident, could be more applicable to special case or major accident investigation. It may not be necessary for a specialist interview team to attend 'routine' accidents whereas this would be important for major accidents—especially if a large number of casualties are involved.

For the operational recommendations, on-scene investigations are likely to be the most appropriate for major accidents. A mixture of on-scene and retrospective methods would be needed to investigate sufficient numbers of accidents to feed a database.

Again for the Data Recommendations, comments suggested that investigating with the aim of generating a large data set is beyond the scope of an independent investigation board (J-G Koenig in session 4): "*Emphasis is placed on large in-depth database on an EU level. This is a very specific job and not like the traditional work of accident investigation bodies.*" This is echoed by a general questionnaire comment:

> *For road accidents I think it is much more important to study series of accidents and concentrate on common issues. We still have so many fatal and serious accidents that we can not afford to base countermeasures on the basis of investigation of individual single accidents. Therefore there is no need for publishing reports from the investigation of a single accident.*

This also applies to the Reports, Countermeasures and Dissemination of Data Recommendations. A database is more likely to lead to aggregated data reports whereas individual accident reports are necessary for the reporting of major accident investigation conclusions. A single routine accident investigation is less likely to result in recommendations for effective countermeasures than data from a number of accidents whereas it is appropriate for a major accident investigation report to recommend ways of avoiding future occurrence.

The level of independence—the legal framework and the legal rights of the investigators—that is necessary may vary to a certain extent depending upon the type of accident and the type of investigation. More stringent operational legal rights are needed to write reliable reports for major accidents.

Comments by Jesus Monclus, in the final discussion session suggest that there is a need to investigate both major accidents and a sample of accidents to inform a database: there is a need to consider special cases such as Mont Blanc tunnel crash but also samples of statistically representative cases.

A comment by Pete Thomas in the third discussion session suggests that the finalised recommendations should set out

> *An infrastructure that could be identified for safety purposes—for example, enhancing the judicial systems, or investigations of accidents of special interest (e.g. large coach crash on motorway with many fatalities). A [further] type of crash investigation is that undertaken to provide underlying data for policy support.*

It is clear from the feedback received at the Brussels workshop that there is a need for the recommendations for transparent and independent road accident investigations to address a number of different types of accident investigation.

This is likely to result in multiple sets of recommendations. In order to achieve this, WP4 of SafetyNet will:

- Clarify the terms used: for instance “in-depth investigation” and “in-depth data”,
- Determine the different level(s) of investigation (routine, safety oriented accident investigation with statistical sampling, major accident or special case investigation) and which of these levels the individual recommendations address,
- And draft separate sets of Recommendations for the different levels of investigation.

At one end of the spectrum, recommendations will be made for standard EU procedures that should be followed in the event of a major road incident or where there is a strong public interest in the reasons for the accident. At the other end of the spectrum, recommendations for ‘best-practice’ for investigation of road accidents of a more routine nature will be proposed. WP4 will continue to seek the expert opinion of safety stakeholders during the formulation of new sets of recommendations. The finalised Recommendations will be published in April 2008.

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10 ANNEX A: WORKSHOP PROGRAMME

Programme

09.30 Registration and Refreshments

10.00 Introduction to the day
Martijn Vis, Institute for Road Safety Research (SWOV), The Netherlands

10.05 An overview of the SafetyNet project and the European Road Safety Observatory (ERSO)
Professor Pete Thomas, SafetyNet Coordinator, Vehicle Safety Research Centre (VSRC), UK

10.20 Transparent and Independent Road Accident Investigation – An overview
Heikki Jähi, French National Institute for Transport and Safety Research (INRETS), France

SafetyNet Work Package 4 reports downloadable from:
http://www.erso.eu/safetynet/content/wp_4_independent_accident_investigation.htm

10.40 The RO-SAT Report
Jesus Monclus, The Centre for the Development of Industrial Technology (CDTI), Spain

Report downloadable from:
http://ec.europa.eu/transport/roadsafety/publications/projectfiles/rosat_en.htm

10.55 Discussion

11.15 Coffee Break

11.30 The QUERY report
Michael Weber, European Association for Accident Research and Analysis (EVU), Germany

Report downloadable from:
http://ec.europa.eu/transport/roadsafety/publications/projectfiles/query_en.htm

11.45 Recommendations for Transparent and Independent Road Accident Investigation: Institutional Issues
Kalle Parkkari, Finnish Motor Insurance Centre (VALT)

Transport
Project co-financed by the European Commission, Directorate-General Transport and Energy

12.05 Discussion

12.25 Lunch Break

13.30 Recommendations for Transparent and Independent Road Accident Investigation: Operational Issues
Rachel Elliman, Vehicle Safety Research Centre (VSRC), UK

13.50 Discussion

14.10 A point of view from industry
Yves Page, Laboratory of Accidentology, Biomechanics and human behaviour (LAB), France

14.25 Recommendations for Transparent and Independent Road Accident Investigation: Data Issues
Gabriele Giustiniani, Department 'Idraulica Trasporti Strade' University of Rome (DITS), Italy

14.45 Discussion

15.05 Coffee Break

15.20 The Swedish Traffic Inspectorate
Lars Bergfalk, Managing Director

15.35 Recommendations for Transparent and Independent Road Accident Investigation: Development of Countermeasures
Helen Fagerlind, Chalmers University, Sweden

15.55 Discussion

16.15 Recommendations for Transparent and Independent Road Accident Investigation: What next?
Heikki Jähi, French National Institute for Transport and Safety Research (INRETS), France

16.25 Closing remarks
Martijn Vis, Institute for Road Safety Research (SWOV), The Netherlands

11 ANNEX B : WORKSHOP QUESTIONNAIRE

SafetyNet – Building a European Road Safety Observatory

Draft Recommendations for A Pan-European approach to Independent and Transparent Road Accident Investigation

27th March 2007

WORKSHOP QUESTIONNAIRE

Chambre Française de Commerce et d'Industrie de Belgique, Avenue des Arts, 8
B-1210 Brussels - Belgium

Transport
Project co-financed by the European Commission, Directorate-General Transport and Energy

Recommendations on Institutional issues

1. The Road Accident Investigation Body should be independent in its structure, function and finances and its investigations should be carried out with as much openness and transparency as possible. Its investigations should be independent of regulatory authorities, manufacturers, and organisations whose vested interests lie in the data collected.

Do you consider this recommendation appropriate and necessary?

Yes ☐
No ☐
Remarks_____

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2. The Road Accident Investigation Body should have control over its own budget and should not rely on external funding to carry out investigations.

Do you consider this recommendation appropriate and necessary?

Yes ☐
No ☐
Remarks_____

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3. National and international policy objectives regarding road safety should feed into the investigation process but would not determine it. The agency should remain autonomous with regard to what is investigated whilst considering the data needs of policy-makers and other stakeholders.

Do you consider this recommendation appropriate and necessary?

Yes ☐
No ☐
Remarks_____

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4. Individual countries should have the autonomy to investigate accidents that are of interest to their national priorities.

Do you consider this recommendation appropriate and necessary?

Yes ☐
No ☐
Remarks_____

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5. Independent accident investigation should be carried out by one or more dedicated multi-disciplinary teams with specialist knowledge across a number of relevant areas.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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6. Accident Investigators should have extensive experience and knowledge of road safety. Investigators should receive additional and comprehensive training in accident investigation to ensure uniform standard of data across the member states.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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7. The investigation team should also have access to external expertise. This expertise may lie, for example, in Engineering, Traffic Control Systems and Human Factors.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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8. For each accident, the investigation body should establish the most appropriate investigation team. This may involve drawing on the expertise of other organisations.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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9. The Road Accident Investigation Body should recruit and place on-call a team of experienced and trained interviewers to assist in the conducting of interviews and the taking of witness statements.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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Recommendations on Operational issues

10. The Road Accident Investigation Body should be notified of accidents at the same time as the emergency services to allow immediate access to the accident scene.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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11. Alerting members of the investigation team should take place according to the procedure and order agreed on between the emergency services and the investigation team. Procedures should be in writing and state the member of the investigation team acting as contact person, how information is communicated and the time frame within which this should occur.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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12. Standard information about an accident should be communicated to the Road Accident Investigation Body to enable the investigation team to determine whether or not the accident falls within the scope of the team's investigation programme.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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13. Scene examinations should take place as soon as possible following an accident in order to gain accurate information and record volatile data.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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14. Investigations should be safety focused and kept separate from the judicial enquiry into the same accident. The aim of data collection should be to establish the immediate and underlying causes of the accident and injuries.

Do you consider this recommendation appropriate and necessary?

Yes ☐

No ☐

Remarks_____

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15. An investigation manual should be produced to document the basic level of data collection for all accident investigations. This document should include concise and explicit accident investigation protocols enabling consistency in data collection across the member states.

Do you consider this recommendation appropriate and necessary?

Yes ☐

No ☐

Remarks_____

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16. The accident investigation manual should be a published document and freely available in order to reinforce the openness and transparency of investigations.

Do you consider this recommendation appropriate and necessary?

Yes ☐

No ☐

Remarks_____

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17. Data collected, according to the investigation manual, should build a complete picture of:

a) What took place

b) Why it happened

c) The consequences

d) How the accident and/or injuries could have been prevented.

Do you consider this recommendation appropriate and necessary?

Yes ☐

No ☐

Remarks_____

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18. Member states should define, in the framework of their respective legal system, the legal status of the investigation that will enable the investigators to carry out their task in the most efficient way and within the shortest time.

Do you consider this recommendation appropriate and necessary?

Yes ☐

No ☐

Remarks_____

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19. Road accident investigators should have the legal right, where appropriate in cooperation with the authorities responsible for the judicial enquiry including the police, to:

a) Access to the scene of the accident

b) Access to all the vehicles involved in the accident

c) Access to evidence in vehicles including data stored in on board data recorders such as tachographs.

d) Access to information about the rescue operations.

e) Examine traffic regulatory systems and records of their use and installation

f) Examine roadside installations (e.g. street lighting, crash barriers) and records relating to their use and installation.

g) Access to records relating to the road layout design and road surface materials.

h) Examine the results of medical examinations and post mortem reports for injured road users.

i) Question all witnesses.

Do you consider this recommendation appropriate and necessary?

Yes ☐

No ☐

Remarks_____

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20. The purpose of the investigation and criteria for data collection should be disclosed to all people and agents involved in the accident. They should receive honest and open explanations about what the investigation is for and who will use the data collected. The answering of interview questions should be optional and the contact details of those conducting the investigation and interviews should be disclosed to the road users and witnesses involved.

Do you consider this recommendation appropriate and necessary?

Yes ☐

No ☐

Remarks_____

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Which system should be used to investigate road traffic accidents?

On Scene ☐
Retrospective ☐
Mixture of on scene and retrospective ☐
Remarks_____

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Which road traffic accidents and how many of each should be investigated?

	All	A sample
Fatal accidents	☐	☐
Injury accidents	☐	☐
As defined by national research programme	☐	☐
As defined by European research programme	☐	☐
Other	☐	☐

Please comment on the type of samples required (if applicable) _____

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Remarks_____

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Recommendations on Data issues

21. Data that is collected about an accident by independent accident investigators should not be used to give evidence about fault or blame including in a court of law.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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22. Data collected should be protected by law in each country so that the data never needs to be disclosed to anyone else, including the police or any other enforcing agency.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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23. The Road Accident Investigation Body should collect and record all information relating to a specific accident in a database. This should be stored in a structured manner enabling future retrieval.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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24. An integrated road accident investigation data management system should be developed. This should include a road accident database with a linked storage system for road user, witness and expert witness accounts and a tool for progress tracking and managing individual investigations.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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25. A Database Manager should be appointed in each member state and be responsible for the management of data accuracy and completeness plus the analysis of the data.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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26. The data collected should be stored securely according to the confidentiality requirements of the Member State.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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27. No data containing information that would lead directly to the identification of persons involved in the accident should be released to a third party. Information may be made available for research or analysis purposes but this should be restricted to a format which does not permit identification or attribution.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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Recommendations on Reports, Countermeasures and the Dissemination of Data

28. Data should be reported in two main ways within each Members State, by individual accident and by aggregate data from multiple accidents.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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29. Reports should be written in the form most appropriate to the investigation however, the general structure of these reports should be decided upon at Community level and documented publicly. As a minimum individual accident reports should:
a) Briefly state how the investigation was undertaken and what evidence, including witness reports, the conclusions were based upon.
b) Set out the identified cause(s) of the accident and other factors which may have increased the severity of the accident.
c) Make recommendations designed to prevent reoccurrence.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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30. Recommendations should be developed independently from the stakeholders however the Road Accident Investigation Body should, where necessary draw on external expertise to ensure that any recommendations are useable, realistic and likely to be adopted.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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31. National recommendations should be discussed at a European Level to assess their Europe wide applicability.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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32. The reports on investigations, their conclusions and recommendations should be made publicly available within an appropriate time scale at both National and Community level.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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33. Each year the Road Accident Investigation Body should publish an annual report concerning the group's activities over the elapsed year. These reports should be made publicly available and contain results of studies, information on recommendations and details of current and planned national legislation changes.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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34. Basic accident data should be analysed and published annually in the Member States' statistical output about accident rates.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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35. The accident files (from national databases) should be compiled within a European database for analysis at a European level.
Do you consider this recommendation appropriate and necessary?
Yes ☐
No ☐
Remarks_____

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36. The results from independent road accident investigations should be disseminated within the European Community following the drawing up of findings and conclusions. European level data, resulting from the compilation and analysis of data from individual member states, should be disseminated across all the Member States.

Do you consider this recommendation appropriate and necessary?

Yes ☐
No ☐

Remarks_____

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37. Recommendations developed from investigations should be passed to the relevant stakeholder(s) for implementation. The stakeholder(s) should have a legal obligation to respond to the recommendations and justify their planned actions within this timescale. The response should include how any resulting countermeasures will be implemented, monitored and maintained.

Do you consider this recommendation appropriate and necessary?

Yes ☐
No ☐

Remarks_____

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38. The Road Accident Investigation Body should play a coordination role by maintaining a current record of:

a) the recommendations of Road Accident Investigation Body accident investigations;

b) the responses of all the organisations to which the respective recommendations are directed; and

c) the state of progress towards implementation in relation to stated timescales.

Do you consider this recommendation appropriate and necessary?

Yes ☐
No ☐

Remarks_____

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What type of reports should be produced?

Full written report for each investigation ☐
Summary report on a number of investigations ☐
Key data only ☐
Other (please, specify)_____

Remarks_____

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General questions

Do you consider transparency or independence to be the more important factor in safety oriented road accident investigation?

Independence is more important ☐
Transparency is more important ☐
Independence and transparency are equally important ☐
Remarks_____

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Do you think that transparent and independent accident investigation activities should be coordinated at EU level?

Yes ☐
No ☐
Remarks_____

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SafetyNet project has set up ERSO. Do you think this framework would be suitable for continuing WP4 work, namely considering the EU-level coordination issues?

Yes ☐
No ☐
Remarks_____

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General remarks _____

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Respondent information

Your country: _____

Your professional background:
If several answers apply, please indicate the order of importance
(1 = the most important etc.)

Policy making / policy support ☐
Safety oriented / independent accident investigation ☐
Judicial expertise ☐
Vehicle industry ☐
Insurance industry ☐
Health sector ☐
Public research (other than independent bodies) ☐
Private research (other than vehicle or insurance industry) ☐
Other (please, specify) _____

12 ANNEX C : WORKSHOP ATTENDEE LIST

Mr Lars Akkermans	BIVV/IBSR	Belgium
Mr Josef Andres	CDV	Czech Republic
Marjolein Baart	Dutch Safety Board	Netherlands
Francois Bar	Exaact	France
Lars Bergfalk	Swedish Road Traffic Inspectorate	Sweden
Mr Soren Berglund	University of Umea	Sweden
Mr Jean-Luc Blancou		France
Mrs Lindsay Cant	INRETS	France
Dr Joao Cardosa	Laboratório Nacional de Engenharia Civil	Portugal
Mr Jean Chapelon	Observatory for Road Safety	France
Ms Rebecca Cobb	H.M Coroner For Kent (north east district)	UK
Dr Irma Doesburg	Ministerie Verkeer en Waterstaat	Netherlands
Rachel Elliman	VSRC, Loughborough University	UK
Mr Petros Evgenikos	National Technical University of Athens	Greece
Helen Fagerlind	Chalmers University of Technology	Sweden
Mr Jindřich Frič	Ministry of Transport Czech Republic - Road Safety Unit	Czech Republic
Mr Robert Gifford	Parliamentary Advisory Council for Transport Safety	UK
Mr Gabriele Giustiniani	University of Rome "La Sapienza" DITS	Italy
Professor Alfred Shalom Hakkert	Technion	Israel
Jurist Anneliese Heeren	Federal Governmental Service Mobility and Transport	Belgium
Jaroslav Heinrich	CDV	Czech Republic

Mr Thierry Hermitte	Laboratory of Accidentology, Biomechanics and human behaviour (LAB)	France
Mr Shabir Hussain	Metropolitan Police Service	UK
Mr Heikki Jähi	INRETS	France
Mr Michael Jansch	ARU - Medical University Hanover	Germany
Ms Pat Kilbey	Department for Transport	UK
M. J-G Koenig	BEA-TT	France
Mr Mattias Kuehn	German Insurance Association (GDV)	Germany
Dr Anders Kullgren	Folksam Research	Sweden
Mr Harri Kuusk	Estonian Road Administration	Estonia
Mr Christophe Ledon	Accidentology Consultant	France
Mr Thomas Lekander	Swedish Road Administration	Sweden
Mr Lars-Göran Löwenadler	Volvo Truck Corporation	Sweden
Dr Ove Lundberg	Umea University, Traffic Safety Centre North	Sweden
Mr Dimitri Margaritis	CERTH, Hellenic Institute of Transport	Greece
Mr Ágúst Mogensen	Icelandic Road Accident Investigation Board	Iceland
Dr Jesus Monclus	CDTI - Centre for the development of Industrial Technology	Spain
Andrew Morris	VSRC, Loughborough University	UK
Mrs Deirdre O'Reilly	Department for Transport	UK
Mr Yves Page	LAB	France
Mr Kalle Parkkari	VALT	Finland
Lucy Rackliff	VSRC, Loughborough University	UK
Steve Reed	VSRC, Loughborough University	UK
Lars Klit Reiff	The Danish Traffic Accident investigation Board	Denmark

Jean-Paul Repussard	European Commission	EU
Mr Pierangelo Sardi	European Federation of Psychologists Association	Italy
Jindrich Sachl		Czech Republic
Dr Andreas Schepers	BASt	Germany
Mr Davide Shingo Usami	University of Rome "La Sapienza" DITS	Italy
Kent Sjolinder	Swedish Road Administration	Sweden
Pete Thomas	VSRC, Loughborough University	UK
Saara Toivonen	Finnish Road Administration	Finland
Dr Jan Unarski	Institute of Forensic Research Department of Road Accident Analysis	Poland
Mr Gilles Vallet	INRETS	France
Dr Martijn Vis	Institute for Road Safety Research SWOV	Greece
Mr Geert van Waeg	Johanna.be & IFP International Ferderation of Pedestrians	Belgium
Mr Michael Weber	EVU (European association for accident research and analysis)	Germany
Miss Alix Weekes	Thatcham	UK
Ingvild Ytrehus	Accident Investigation Board Norway	Norway
Dr Joanna Zukowska	Gdansk University of Technology	Poland